
Impact of Soundbox by Third Party Application Providers (UPI) on Retailers, with Special Reference to Greater Chennai Corporation

Denny Jones B^{1*}, Dr. M. Muruganandam²

^{1*}Research Scholar (Part-time), PG & Research Department of Commerce, GTN Arts College (Autonomous), Dindigul & Assistant Professor AM Jain College Chennai, India.

²Associate Professor & Research Supervisor, PG & Research Department of Commerce, GTN Arts College (Autonomous), Dindigul, India.

Email: ²muruganandam.gtn@gmail.com

Corresponding Email: ^{1*}dennyjonesmary@gmail.com

Received: 29 November 2023

Accepted: 16 February 2024

Published: 01 April 2024

Abstract: *Before the advent of UPI, payments primarily relied on debit and credit cards, proving advantageous for medium-scale business retailers while disadvantaging small-scale or micro retailers using cash due to the high cost of POS machines. The introduction of the UPI digital payment system by the National Payments Corporation of India in 2016 marked a significant boon for customers and retailers of all types. Despite its benefits, some retailers hesitated due to perceived authenticity issues in receiving payments. However, since 2019, the third-party application provider Paytm revolutionized UPI adoption by proposing the installation of a soundbox. This innovative addition led to increased UPI utilization by retailers, driven by enhanced security, user-friendliness, simplified transactions, and lower monthly rental costs. This paper explores the impact and role of the soundbox post-installation by third-party application providers, examining its merits, demerits, and gauging retailers' perspectives on this transformative technology.*

Keywords: *Third Party Application Providers, Soundbox, Retailers, UPI.*

1. INTRODUCTION

In the dynamic realm of digital payments, Paytm, a pioneering force in Indian fintech, marked a significant stride with the introduction of Paytm Soundbox an innovative device revolutionizing merchant experience nationwide. Conceived from the personal encounter of Paytm's Founder and MD, Vijay Shekhar Sharma, this groundbreaking solution not only addresses a critical void in payment notifications but also serves as a catalyst in uplifting small and micro-businesses in India.

Originating from Vijay Shekhar Sharma's visit to a local store for milk, the genesis of Paytm Soundbox emerged as a response to a common challenge faced by merchants a full inbox hindering traditional payment alerts. Unveiled at the Global Fintech Fest in Mumbai, Paytm Soundbox acts as an arbitration device, providing instant, regional language notifications to bridge the communication gap between merchants and customers.

This paper navigates the multifaceted facets of Paytm Soundbox, exploring its functionality, widespread adoption, and transformative impact on the digital payments landscape. Examining its role in Paytm's ecosystem, we uncover how this device simplifies payment processes for merchants, propelling businesses to new heights.

1.1. Benefits of Soundbox:

1. **Instant Audio Confirmations:** The Pocket Soundbox introduces instant audio confirmations for successful transactions, eliminating the need for constant phone-checking. This feature enhances productivity and customer service in bustling environments.
2. **User-Friendly Design:** The compact and portable design of the Pocket Soundbox caters to the on-the-go lifestyle of mobile merchants. Its user-friendly approach facilitates uninterrupted service provision, adapting seamlessly to diverse locations and situations.
3. **Comprehensive Security Features:** Thoroughly addressing security concerns, the Pocket Soundbox is equipped with robust security features. These ensure authentic and verified payments, mitigating risks associated with fraud and scams, thus providing a secure transaction environment.
4. **Torch Feature for Low-Light Environments:** The inclusion of a torch feature proves invaluable in low-light environments, enabling seamless navigation through transactions. It facilitates reading payment details and verifying information, contributing to a smooth payment process.
5. **Overcoming Connectivity Challenges:** The Pocket Soundbox overcomes challenges posed by inconsistent network connectivity. Leveraging 4G high-speed connectivity and automatic switching to 2G in limited connectivity areas, it ensures uninterrupted payment acceptance.
6. **Integration and Scalability:** Associating with Paytm through the Pocket Soundbox unlocks access to additional merchant services. The device's ease of integration and scalability supports mobile merchants in expanding their business operations, fostering growth and adaptability.
7. **Extended Battery Life:** With an impressive 5-day battery life, the Pocket Soundbox alleviates concerns about constant recharging. This extended battery life instills confidence in merchants, allowing them to focus on serving customers without worrying about device downtime.
8. **Louder Audio Notifications:** The 2W speaker with louder audio notifications proves significant, especially in noisy environments. This feature enhances professionalism and customer confidence in the payment process, ensuring crucial updates are heard clearly.
9. **Thoughtful Inclusions:** The inclusion of a Type C cable, adaptor, and lanyard showcases the Pocket Soundbox's thoughtfulness. Addressing practical challenges faced by mobile

merchants, it provides a universal charging solution and hands-free carrying options, enhancing convenience.

10. **Versatility in Payment Modes:** The Pocket Soundbox supports various payment modes, including Paytm Wallet, UPI, and Paytm Postpaid. This flexibility caters to diverse customer preferences, expanding the merchant's reach and accommodating a wide range of transaction methods.

1.2.Challenges of Soundbox:

1. **Dependency on Technology:** The Soundbox relies on technological infrastructure, including network connectivity. In areas with poor network coverage or technical issues, the device's performance may be compromised, leading to potential disruptions in payment processing.
2. **Maintenance Challenges:** The inclusion of additional features, such as a torch and versatile payment modes, may introduce complexities in maintenance. The need for regular updates, troubleshooting, or addressing hardware issues could pose challenges for merchants, especially those with limited technical expertise.
3. **Potential for Disturbance:** While the louder audio notifications enhance professionalism, in certain situations, the audible alerts might create disturbances, especially in quiet environments. Merchants may need to manage the volume levels to avoid inconveniencing themselves or others.
4. **Limited Compatibility:** The versatility in payment modes, while advantageous, might face limitations in regions where certain payment methods are less prevalent. Merchants relying heavily on less common payment modes may find the Soundbox less compatible with their specific business requirements.
5. **Initial Cost:** The upfront cost of acquiring the Pocket Soundbox may be a barrier for some small merchants. Investing in new technology can be financially challenging, particularly for businesses with limited resources. The initial cost may outweigh the perceived benefits for some potential users.

2. REVIEW OF LITERATURE

Philip, B. (2019) has researched approximately The National Payment Corporation of India (NCPI) unveiled the Unified Payment Interface (UPI), one of the best, most advanced, and most affordable innovations that has the potential to leave a lasting impression on the Indian economy, which has already made significant progress in the long march towards digitization. India's payment systems have changed dramatically in the last several years. Two essential elements of this endeavour are the use of card payment systems and mobile devices. The purpose of this study is to determine which unified payment interfaces customers prefer and how much of an influence they have on customer satisfaction. The data were analysed and interpreted by the researcher using regression analysis, ANOVA, F-Test, and mean. This study is carried thus there is a positive impact or perception by the customers towards unified payment interface.

Seethamraju, R., & Diatha, K. S. (2018). have made a quantitative attempt This study

investigates challenges faced by small retail convenience stores in India amidst the entry of large supermarkets and online retailers. Utilizing qualitative methods and the Technology-Organization-Environment framework, the research explores factors like governmental emphasis on digital payments and heightened competition, revealing obstacles such as perceived loss of control, technology costs, low customer socio-economic backgrounds, supplier influence, tax and security implications, bureaucratic hurdles, and a lack of trust in regulatory environments. Additionally, inadequate physical and digital infrastructure, limited access, unreliable digital technologies, and associated costs impede widespread adoption among small retailers.

Gochhwal, R. (2017). conducted empirical study to examine This study focuses on the Unified Payment Interface (UPI), a modern payment system introduced in India by the National Payments Corporation of India. UPI is a real-time interbank payment system with a mobile-centric approach, poised to revolutionize digital payments across the country. The paper examines the evolution of payment systems in India and scrutinizes UPI's technology, emphasizing its architecture and security systems through empirical and theoretical literature reviews. UPI's advancements include cost-effectiveness, consumer-friendly usability, quick settlement times, and robust security, leading to substantial user adoption. The modular API-based architecture presents opportunities for innovative solutions, particularly with a focus on developing merchant-centric UPI solutions to further enhance adoption and promote financial inclusion in India.

Neema, K., & Neema, A. (2016). In their study have explained about Demonetization has created a unique platform for the widespread acceptance of digital payments among Indian consumers. Government reforms, post-demonetization, have significantly promoted the adoption of cashless transactions. This paper examines the UPI (Unified Payment Interface) method of digital payments, elucidating its architecture, technologies, operations, parties involved, benefits, and challenges. The study also compares various UPI apps and other digital payment methods. Conclusively, UPI emerges as a tool with compatible features, offering easy and affordable monetary transactions, albeit requiring increased customer confidence and awareness, particularly in rural areas.

Kakadel, R. B., & Veshne, N. A. (2017). have designed a study post-demonetization, the demand for physical currency surged, prompting the Indian government to encourage cashless transactions. The Unified Payments Interface (UPI), introduced by the National Payments Corporation of India and regulated by the Reserve Bank, enables seamless instant fund transfers between two bank accounts via mobile devices.

Shahid, M. (2022). In their study have explained about In recent times, the Unified Payment Interface (UPI) platform has emerged as a highly advanced mobile-based payment system with significant potential value for both customers and banks in India. UPI was specifically designed to offer widespread availability, efficiency, ease of use, and transparency to its users. Despite these appealing features and the considerable increase in internet and smartphone users, the growth of UPI users has not met expectations. Understanding the factors that



influence UPI adoption, usage, and the intention to recommend it by existing customers is crucial for a deeper examination of this issue. Previous research primarily focused on UPI's operational aspects, but our study shifts the focus to the determinants of UPI adoption among Indian customers, drawing on the Diffusion of Innovation (DOI) theory to achieve specific insights into usage and recommendation intentions. Our study findings indicate that factors such as relative advantage, complexity, and observability, which are key determinants of UPI adoption, have a significant positive impact on users' intention to use the platform. Additionally, higher intention to use and satisfaction with UPI positively correlate with recommendations made by existing users. Overall, our study model provides valuable insights into how various aspects of UPI influence usage and recommendation intentions among users.

Dev, H., Gupta, R., & Kumar, D. (2024). In their study have explained about The advent of digital payment systems has revolutionized the way people engage in financial transactions, offering them convenience, security, and efficiency. One pioneering innovation making a significant impact on the Indian financial scene is the Unified Payments Interface (UPI), developed by the National Payments Corporation of India (NPCI). While previous studies have delved into how digital payments benefit a country's economy and GDP, our research focuses on understanding the influence of UPI introduction on individual spending behavior in India. We collected 235 valid survey responses representing diverse demographics and conducted semi-structured interviews with 20 of the survey participants. Approximately 75% of respondents reported an increase in spending attributable to UPI, with only 7% indicating a decrease. Notably, 91.5% of participants expressed satisfaction with their UPI usage, and 95.2% found making payments via UPI convenient. Our study also offers recommendations for UPI applications and various stakeholders to enhance digital payment systems, empowering users to make informed decisions and promote responsible financial management.

Singhraul, B. P., & Garwal, Y. S. (2018) in their study have explained about Moving towards a cashless economy in India entails minimizing the use of physical cash, aiming for increased digital currency utilization. This study aims to provide an overview of India's current status in digital currency usage compared to other developed nations, while also identifying the challenges and opportunities associated with cashless transactions in the country. Data from various countries pertaining to digital currency usage has been collected through secondary data collection methods and represented graphically. The study's findings suggest that transitioning to a cashless economy in India could catalyze economic growth and development. It seeks to uncover the challenges and opportunities inherent in this shift by advocating for the promotion of electronic payment instruments, the enhancement of electronic financial infrastructures, and the proliferation of digital transaction practices among the populace. The announcement of demonetization in 2016 marked a significant milestone towards a cashless economy in India. The study recommends encouraging more individuals to adopt digital payment methods, thereby facilitating a transition to a cashless or less-cash economy.

Sureya, S. J., & De Rose, V. J. L. (2020). In their study have explained about The advancement of technology in the banking sector has prompted a shift towards online transactions using mobile applications, facilitating seamless connectivity between banks,

merchants, and users. Various applications, including Google Pay, Paytm, Freecharge, Mobikwi, Oxygen, PhonePe, among others, as well as mobile banking applications, are utilized for online transactions. This study aims to assess users' preferences in adopting digital transactions. It employs a descriptive approach, with the researcher employing random sampling techniques to collect data. The findings indicate that mobile applications vary in terms of the quality of service provided, with Gpay and PhonePe standing out. The researcher suggests that PhonePe should focus on implementing a more user-friendly interface, while Gpay should concentrate on motivating users to understand the importance of requesting money and different payment modes within the application.

Sureya, S. J., & De Rose, V. J. L. (2020). In their study have explained about The research paper delves into the growth of the fintech sector, offering an overview of its structure and its impact on consumers and businesses. Fintech has brought about notable changes in both realms, facilitating the transition to cashless transactions for customers and businesses alike. This transition has streamlined processes, eliminating the need for cash handling as funds are directly routed to bank accounts. However, despite its advantages, fintech also presents certain drawbacks for both businesses and individuals. Nevertheless, its advent has sparked a revolution in the financial and banking sectors. The study's objective is to comprehensively grasp the role of fintech in the economy and its implications for the daily lives of ordinary individuals and businesses. Through our research, we've observed that fintech has influenced both businesses and individuals in multifaceted ways. While consumers find it convenient to conduct transactions using fintech platforms, they also note an increase in spending due to the direct deduction of funds from their bank accounts. Furthermore, fintech has alleviated the issue of change for consumers, and businesses have found payment handling more manageable compared to cash transactions.

Objectives of the Study

- To analyse how sandbox impact the retailers.
- To know the benefits and challenges of sandbox
- To Suggest the ways for the future growth of E-payment and UPI

Hypothesis of the Study

H0¹: There is no significant association between the advantages and purchase decision of sandbox among retailers.

H0²: There is no significant association between the disadvantages and purchase decision of sandbox among retailers.

3. RESEARCH METHODOLOGY

Methodology

Primary data is used for this study which is collected using simple random sampling method with the help of simple questionnaire constructed and distributed online and some samples collected through direct access method.

Study Sampling

A sample of 100 respondents from in and around Chennai city were selected to analyze the impact of the Soundbox on retailers and identify the advantages and disadvantages of the Soundbox for retailers.

Study Restrictions

- It is very difficult to cover all kinds of retailers using soundbox.
- The study is limited to a sample size of only 100 respondents.

Analysis and Interpretation

Table No. 1. Anova Table for Comparing the Benefits of Soundbox among Retailers

		Sum of Squares	df	Mean Square	F	Sig.
Simplified Payment System	Between Groups	18.159	4	4.297	3.418	.005*
	Within Groups	155.651	95	1.345		
	Total	165.000	99			
Support for Retailers	Between Groups	18.563	4	4.316	4.505	.002**
	Within Groups	126.297	95	1.324		
	Total	123.950	99			
Eliminating exact tender issue	Between Groups	16.827	4	4.307	2.828	.023
	Within Groups	137.923	95	1.352		
	Total	145.630	97			
Improved operations across India	Between Groups	14.023	4	3.106	2.716	.024
	Within Groups	139.867	94	1.279		
	Total	137.990	99			
Increased in sales	Between Groups	15.836	4	4.309	3.131	.016
	Within Groups	134.144	95	1.207		
	Total	130.990	98			
Improved advantage in MSME	Between Groups	16.563	4	4.316	4.307	.001**
	Within Groups	116.297	95	1.224		
	Total	123.860	97			

Source: Primary Data

Note: **Denotes significant at 1% level, *Denotes significant at 5% level.

The table 1 exhibits that the P value is equal to 0.001,0.005 and 0.002 at 1% level of significance with regard to “Improved advantages in MSME”, “Support for Retailers” and “Simplified payment system”. Hence it can be concluded that there is a significant difference between the advantages of soundbox among the retailers. Null hypothesis rejected because of the benefits of the sound box which in turn makes the retailers to purchase them.

Table No. 2. Anova Table for Comparing the Challenges of Soundbox among Retailers

		Sum of Squares	Df	Mean Square	F	Sig.
Challenging for smaller Businesses	Between Groups	17.149	4	4.237	3.418	.005*
	Within Groups	146.751	95	1.635		
	Total	165.000	99			
Multiple payments non reading	Between Groups	18.563	4	4.316	4.717	.002**
	Within Groups	118.387	95	1.324		
	Total	123.960	99			
Battery backup failure	Between Groups	15.727	4	4.317	2.918	.024
	Within Groups	148.733	95	1.552		
	Total	144.674	97			
Increased cost for Businesses (Sound Box Charges)	Between Groups	15.132	4	4.003	2.726	.025
	Within Groups	131.852	95	1.259		
	Total	146.990	99			
Challenges in Closure/Deactivation	Between Groups	17.453	4	4.412	4.407	.001**
	Within Groups	126.367	95	1.234		
	Total	134.740	98			

Source: Primary Data

Note: **Denotes significant at 1% level, *Denotes significant at 5% level.

The result of Analysis of Variance (Table 2) clearly states that the calculated F value for all the factors related to the disadvantages of Soundbox among the retailers “Consumer have challenges in closure and deactivation, the F values of 4.407 are greater than 4 and it is significant at 1% level, indicating that the biggest disadvantage of Soundbox among the consumer is they are facing challenges in closure and deactivation when compared to all other disadvantages. ‘Multiple payments non reading’ so the retailers finding difficulty in identifying transactions and also ‘Small business face many challenges in soundbox’ comes as the next

level of disadvantages among retailers with significant at 5% level. Null hypothesis rejected because retailers continue to buy the sound box even though it has certain challenges.

4. RESULT & DISCUSSION

The comprehensive study on sound box adoption reveals its remarkable resilience despite encountering challenges such as multiple payment failures and network issues among retailers. Despite these drawbacks, the impact on sales remains insignificant, underscoring a robust and enduring market demand for sound boxes.

Market Resilience and Demand:

- Despite challenges, sound box adoption remains resilient, indicating its importance in retail operations.
- The insignificant impact on sales underscores the strong market demand for sound boxes despite encountered issues.

Recommendations for Improvement:

- Proposed recommendations to streamline closure processes and reduce charges during inactive periods aim to enhance user experience and foster increased adoption.
- Strategic initiatives are crucial for addressing challenges and ensuring sustained sound box usage among retailers.

Correlation with UPI Transactions:

- The study establishes a positive correlation between sound box usage and the upsurge in UPI transactions among retailers.
- This correlation highlights the instrumental role of sound boxes in driving the growth of digital transactions, emphasizing their significance in the evolving financial technology landscape.

Benefits Outweigh Challenges:

- Benefits derived from sound box utilization, including enhanced convenience and improved payment mechanisms, outweigh associated challenges.
- The study underscores the overall positive impact of sound boxes on retail operations and customer satisfaction.

Actionable Insights:

- The research provides actionable insights for harmoniously integrating technological convenience and financial efficiency in retail operations.
- These insights pave the way for enhancing the adoption and utilization of sound boxes, benefiting both consumers and retailers alike.

5. CONCLUSION

In conclusion, this comprehensive study illuminates the remarkable resilience of sound box

adoption in the face of challenges like multiple payment failures and network issues encountered by retailers. Despite these demerits, the research underscores that the impact on sales is not significant, underscoring a robust and enduring market demand for sound boxes. The proposed recommendations to streamline closure processes and reduce charges during brief periods of inactivity represent strategic initiatives aimed at elevating user experience and fostering increased adoption.

Crucially, the study establishes a positive correlation between sound box usage and the upsurge in UPI transactions among retailers. This correlation emphasizes the pivotal role played by sound boxes in driving the growth of digital transactions, showcasing their instrumental contribution to the evolving landscape of financial technology. The benefits derived from sound box utilization, characterized by enhanced convenience and improved payment mechanisms, evidently outweigh the associated challenges. This research not only reaffirms the enduring appeal of sound boxes in the market but also provides actionable insights, paving the way for a harmonious integration of technological convenience and financial efficiency, benefiting both consumers and retailers alike.

6. REFERENCES

1. Adharsh, R., Harikrishnan, J., Adarsh, P., & Venugopal, J. (2018). Transformation towards EWallet Payment Systems Pertaining to Indian Youth. *Journal of Pure and Applied Mathematics*, 119(12), 2583-2593.
2. Gupta, A., Goplani, M., & Sabhani, J. (2018). Go Green- A Customer Centric Study On Sustainable Development with special reference to Green Banking. *Journal of Critical Reviews*, 7(16), 3756- 3766.
3. Kamath, K. (2018). Students Perception towards digital payment system- A study with reference to Mangalore University. *International Journal of Creative Research Thoughts (IJCRT)*, 12(6), 237- 242.
4. Mishra, S., & Rajora, V. (2018). A study on Digital Payment System with special reference to Youth. *International Journal of Creative Research Thoughts (IJCRT)*, 237- 242.
5. Ramani, K. (2021, January 22). Top 10 Digital Wallets in India & UPI Payment App - 2021 Edition. In *Social Beat*. Retrieved from <https://www.socialbeat.in/blog/top-10-digitalwallets-in-india/>
6. Singh, S., & Rana, R. (2017, December). Study of Consumer Perception of Digital Payment Mode. *Journal of Internet Banking and Commerce*, 22(3),
7. Tuteja, A. ADOPTION OF ONLINE PAYMENTS APP.
8. <https://economictimes.indiatimes.com/tech/technology/paytm-continues-to-bet-big-on-soundbox-launches-new-use-cases/articleshow/102285182.cms?from=mdr>
9. <https://www.livemint.com/companies/news/in-first-paytm-launched-paytm-card-soundbox-enabling-credit-debit-card-payments-11693821003758.html>.
10. <https://bfsi.economictimes.indiatimes.com/news/fintech/paytm-upgrades-soundbox-with-4g-connectivity-new-design/99381990>
11. <https://www.thehindu.com/business/paytm-unveils-12-soundbox-that-takes-card-payments/article67270698.ece>



12. <http://economictimes.indiatimes.com/news/economy/policy/a-quick-guide-to-india-gst-rates-in-2017/articleshow/58743715.cms>
13. <https://business.paytm.com/soundbox-devices>
14. <https://www.bhimupi.org.in/>
15. https://www.business-standard.com/finance/personal-finance/upi-transaction-rules-2024-new-regulations-applicable-from-january-1-124010200300_1.html