

A TRANSFORMATIVE FORCE: ASSESSING DEMONETIZATION'S IMPACT ON DIGITAL TRANSACTIONS IN INDIA

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ABSTRACT

This research delves into the repercussions of demonetization, particularly the abolition of valuable banknotes, on the prevalence of cashless undertakings across India. Investigating the adoption rates of cashless techniques for instance e-wallets, UPI (Unified Payments Interface), and online banking post-demonetization, using survey data from 500 participants and the utilization of descriptive and inferential statistics. Our findings underscore a notable positive correlation between demonetization and the upsurge in cashless undertakings. Evident increases in e-wallet and UPI usage, alongside a rise in payment gateway transactions, are observed. While factors like gender and marital status demonstrate minimal effects on perceived impact, age and educational attainment exhibit varying degrees of influence. Particularly, individuals with higher levels of education report a more pronounced impact of demonetization on their adoption of cashless undertakings. In conclusion, demonetization emerges as a catalyst for the proliferation of cashless undertakings in India. Nonetheless, persistent provocation for instance security apprehensions and limited digital literacy are persist. Future research endeavours should delve into the enduring effects of demonetization and its ramifications across diverse income brackets.

Keywords: Demonetization, Digital Transactions, UPI, E-Wallet, Digital Literacy.

Introduction

The demonetization drive in India has spurred accelerated the adoption of cashless undertakings, encouraging the usage of credit and debit cards, online payments, and mobile wallets among the public. Among these, mobile wallets have experienced a significant surge in popularity, particularly among the younger demographic aged 18-25. These wallets offer convenient remittance solutions via mobile apps, capitalizing on India's expansive smartphone market and the proliferation of financial apps.

Moreover, remittance gateways and banks are progressively embracing cashless undertakings, aligning with the government's "Cashless India" initiative. This concerted effort aims to propel India towards becoming a digitally-enabled cashless economy.

This study aims to delve into the impact of mobile wallets and UPI (Unified Payments Interface) on the transition towards cashless transactions, shedding light on their role in shaping India's evolving payment ecosystem.

Impact of Demonetization

Demonetization, the sudden withdrawal of specific currency denominations from circulation, has profound implications cashless undertakings, affecting various aspects of the economy. Here's how demonetization can impact cashless undertakings:

- **Surge in Cashless Transactions:** Demonetization often triggers a temporary scarcity of cash, prompting individuals to explore alternative payment avenues like digital wallets, credit/debit cards, and online banking. This can lead to a short-term spike in cashless transactions as people seek to circumvent scarcity of cash.

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- **Catalysing Digital Payment Adoption:** Demonetization can serve as a catalyst for embracing digital payment technologies. Faced with restricted access to physical currency, individuals and businesses may hasten their transition to cashless options. This can drive a sustained shift towards digital payments even beyond the immediate aftermath of demonetization.
- **Strengthening Cashless Infrastructure:** Governments and financial institutions may expedite efforts to bolster the infrastructure supporting cashless transactions in response to demonetization. This may involve deploying more point-of-sale terminals, developing mobile payment solutions, and enhancing online banking platforms to offer viable alternatives to cash.
- **Heightened Awareness and Education:** Demonetization often fosters increased awareness and education regarding cashless payment methods among the populace. Stakeholders may initiate campaigns to educate people about the benefits and usage of digital payment systems, addressing resistance to change and encouraging broader adoption.
- **Addressing Security and Privacy Concerns:** With the rise of cashless transactions, there may be amplified concerns about security and privacy. Individuals may fear fraud, identity theft, or unauthorized approach to their financial information. It's crucial to mitigate these concerns through vigorous security measures and consumer protection regulations to maintain trust in cashless transactions.

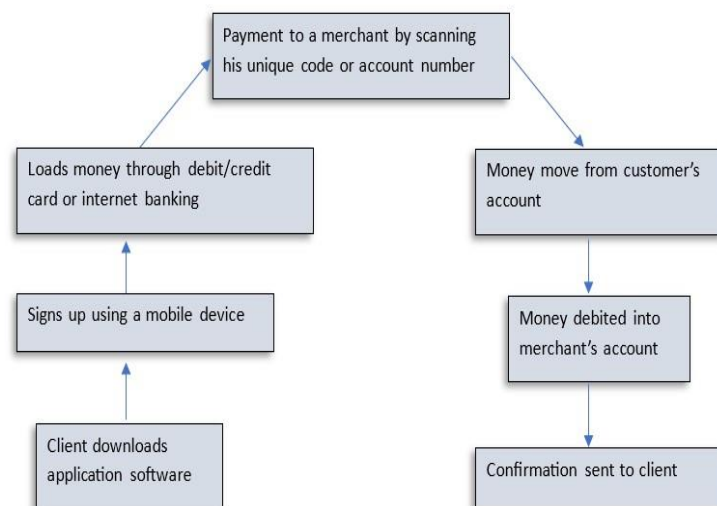
Overall, demonetization significantly influences the landscape of cashless transactions, fostering their adoption and prompting investments in digital payment infrastructure. However, the magnitude and duration of these effects hinge on various factors, including the specific circumstances surrounding the demonetization policy and measures taken to alleviate its consequences.

Digital Payment Systems within India: A Blessing for Cashless Transactions

- **E-Wallet (Mobile Wallet)**

An E-Wallet, also known as a mobile wallet, is a digital remittance system that enables users to store, manage, and transact money through a mobile application. This innovative financial tool allows individuals to link their bank accounts, credit/debit cards, or load funds onto the mobile wallet, creating a virtual wallet on their smartphones. E-Wallets facilitate various transactions, including mobile recharges, bill payments, and online purchases, providing users with a convenient and cashless remittance experience. Moreover, E-Wallets often provide auxiliary element for instance rewards programs, discounts, and seamless peer-to-peer money transfers. With a focus on user-friendly interfaces and enhanced security measures, E-Wallets have experienced a revolt trend in popularity, contributing to transition towards an additional digitized and streamlined financial ecosystem.

Basic mechanism of a Mobile/ E-wallet transaction



- Unified Payment Interface**

The National Payments Corporation of India (NPCI) has pioneered the evolution of the Unified Payments Interface (UPI), a state-of-the-art digital payment system that remove the dynamics of individual transactions in India., UPI redefines the way individuals engage in financial transactions, offering a seamless and user-friendly platform., UPI provides a seamless platform for instant money transfers between bank accounts through mobile devices. Users can link multiple bank accounts to a single UPI-enabled mobile application, allowing for easy peer-to-peer transactions, bill payments, and online purchases. UPI operates on a 24/7 basis, ensuring round-the-clock accessibility, and its unique identifiers, for instance UPI IDs or QR codes, clarify the transaction procedure. UPI has emerged as a key driver in promoting a cashless economy, offering a secure, convenient, and interoperable solution for digital payments that has gained widespread adoption among users and businesses alike.

UPI (Unified Payments Interface) In view of the fact, its float in 2016 by the National Payments Corporation of India (NPCI), the Unified Payments Interface (UPI) has noticed essential growth, model the digital payment scenery in India. Here are pointer milestones in the UPI expedition with remarkable Year-on-Year (YoY) extension statistics up until January 2023:



In 2017, UPI accomplished a magnificent YoY extension of 900%, handling over 100 million undertakings valued at INR 67 billion.

The momentum proceeds with in 2018, with a YoY extension of 246%, procedure undertakings exceeding INR 1.5 trillion.

In 2019, UPI continue a vigorous YoY growth of 67%, easing transaction possessions over INR 2.9 trillion.

In spite of, provocation in 2020, UPI exhibit resilience with a YoY growth of 63%, recording undertakings surpassing INR 4.3 trillion by December.

In 2021, UPI keep in existence its uphill trajectory with a YoY extension of 72%, handling more than 1.49 billion transactions valued at INR 5.6 trillion by June.

Termination of the calendar year 2022, UPI perceived a remarkable total transaction value of INR 125.95 trillion, marking a 1.75X YoY enlarge and considering for virtually 86% of India's GDP in FY22.

Termination of the calendar year 2023, UPI's total undertaking volume stands at a magnificent 83.75 billion.

These statistics manifest illustrate the escalating popularity and widespread acquisition of UPI, solidifying its location as a convenient and secured digital transaction platform in India.

Review of Literature

Sarika and Vasantha (2019) delve into the rising prominence of mobile wallets in India, extolling their virtues of convenience, security, and time-saving capabilities. The study illuminates how demographic variables influence the propensity to use mobile wallets, emphasizing the critical role of trust in fostering adoption. While heralding mobile wallets as potential game-changers in the economic growth and catalysts for economic growth, the research underscores the necessity for further exploration of security concerns and the nuanced interplay between demographic factors and mobile wallet adoption.

Padiya and Bantwa (2018) escort into the surge of mobile wallet proliferation in India, with a keen focusing on Ahmedabad City post the 2016 demonetization. He underscores the escalating popularity of mobile wallets as a primary remittance method, amidst the burgeoning global mobile remittance industry, now a multi-billion-dollar industry. Emphasizing trust as pivotal in mobile wallet adoption, with a particular emphasis on user satisfaction, amidst lingering security apprehensions. While lauding e-wallets' potential to transform the payment landscape and bolster economic growth, particularly in micro-payments, they advocate for further exploration into security apprehension and the intricate role of demographic variables in mobile wallet adoption.

Mitra, Rath, and Nayak (2017) scrutinize the repercussions of demonetization on the prevalence of cashless undertakings in India. This investigation reveals a significant upswing in the utilization of cashless payment methods post-demonetization, regardless of individuals' liquid cash holdings. They identify several hurdles impeding the widespread adoption of cashless methods, such as insufficient acceptance among merchants, transaction expenses, and apprehensions regarding security. Nonetheless, despite these barriers, demonetization is perceived as a catalyst for the advancement of a digital economy. Its benefits include streamlined transaction processes and a reduction in the circulation of counterfeit currency..

Methodology

Sample Size

The research comprises a sample size of 500 individuals, chosen via random selection. The questionnaire was administered to members of the general public.

Research Design

The research is both analytical and descriptive, employing a combination of primary and secondary data sources. A closed-ended questionnaire, administered to a sample of 500 individuals, facilitated data collection. Analysis was conducted using SPSS Software, employing descriptive statistics such as Mean, Standard Deviation, and Frequency, alongside inferential statistics including independent t-tests, paired t-tests, and one-way ANOVA. Secondary sources, including literature reviews, journals, and articles, supplemented the analysis.

Sources of Data

The research data has been gathered primarily through both primary and secondary sources. The primary data stem from the administered questionnaire, while secondary sources encompass a range of journals, research papers, and internet websites.

Objectives

This research endeavours to assess the influence of demonetization on cashless transactions within India, with a particular focus on the extent to which demonetization spurred the adoption of cashless remittance techniques for instance e-wallets and UPI. Additionally, the investigation motives to identify and examine the obstacles hindering broader acceptance of cashless transactions in the Indian context.

Hypothesis

H₁: There is no notable difference among responder on the impact of demonetization on cashless transactions based on their demographic elements like gender, age, affiliation, marital status, income and qualification.

Reliability

Reliability Statistics	
Cronbach's Alpha	No of items
.970	11

The table provided demonstrates the questionnaire's reliability, with Cronbach's alpha calculated at 0.970, exceeding the 0.7 threshold. This finding assures us that the questionnaire data is highly reliable, making it conducive for further analysis.

Impact of Demonetization on cashless transaction

Table 1 presents the mean rating for the impact of demonetization on cashless transaction as perceived by the responders of the research.

Table 1: Impact of Demonetization on Cashless Transaction

S. No.	Impact of Demonetization on Cashless Transaction	SD		D		N		A		SA		Mean	SD
		N	%	N	%	N	%	N	%	N	%		
1	Immediate dip in CLT	105	21	90	18	100	20	145	29	60	20	2.93	1.337
2	Impact on the COD mode	60	12	100	20	75	15	175	35	90	18	3.27	1.296
3	Fostering the adoption of CLT	55	11	80	16	80	16	150	30	135	27	3.46	1.331
4	Remarkable surge in online payment	75	15	75	15	65	13	175	35	110	22	3.34	1.367
5	Step decline in the payment using COD	65	13	90	18	85	17	180	36	80	16	3.24	1.283
6	Payment through digital wallets gradually Increase	60	12	95	19	65	13	170	34	110	22	3.35	1.331
7	Small traders and shops levered demonetization by opting for digital payment	95	19	85	17	95	19	155	31	70	14	3.04	1.342
8	Demonetization has changed the transaction methods	65	13	100	20	70	14	185	37	80	16	3.23	1.296
9	There has been notable increase in sales through e marketing than in retail shop after demonetization	70	14	95	19	95	19	170	34	70	14	3.15	1.127
10	Stronger emphasis on payment through credit / debit cards and digital wallets	70	14	90	18	90	18	170	34	80	16	3.20	1.297
11	Demonetization has increased transaction through payment gateways	60	12	70	14	100	20	170	34	100	20	3.36	1.278
Total												3.23	1.20

From the above table, it is initiated that the top factor associated to the impact of demonetization on cashless transactions was "Fostering the adoption of cashless transaction" (M=3.46, SD=1.331). This was followed by the factors like "Demonetization has resulted in increased transactions through Payment gateways" (M=3.36, SD=1.278), "Payment through digital wallets gradually

Increase" (M=3.35, SD=1.331) "Remarkable surge in online payment" (M=3.34, SD=1.367) and "Demonetization has changed the transaction methods" (M=3.23, SD=1.296), "Stronger emphasis on payment through credit / debit cards and digital wallets" (M=3.20, SD=1.297). The elements like "There has been notable enlarge in sales through cashless transaction than in retail shop after demonetization" (M=3.15, SD=1.127), "Small traders and shops levered demonetization by opting for digital payment" (M=3.04, SD=1.342). Overall, the responders of the research are accepting the figure that demonetization has notable impact of on cashless transactions which is evident in their mean rating (M=3.23, SD=1.20)

Assessment of Hypothesis 1

Hypothesis H1

"There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements such as marital status gender, age, affiliation, income and qualification".

This hypothesis comprises five sub-hypotheses, whatever is tested as outlined below

Hypothesis H1a

"There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on gender".

Sub-hypothesis H1a was examined through sample t-test (an independent sample), as delineated in Table 1.2. In this analysis, the responders gender served as the independent variable, while the impact of demonetization on cashless undertakings was assessed as the dependent variable.

Table 2: Sample t-test(Independent) analysed the relation between gender and influence of demonetization on cashless transactions.

Variable	Gender	N	SD	Mean	t-value	p-value
Impact of demonetization On cashless transactions	Male	365	1.22570	3.3014	1.882	.278
	Female	135	1.12389	3.0741		

*Significance level (p < 0.05)

** High significance level (p < 0.01)

*** Very high significance level (p < 0.001)

Analysis out of the table indicates that there is no notable distinct between female and male responders regarding the influence of demonetization on cashless undertakings, as evidenced by a p-value greater than 0.05. Therefore, the hypothesis asserting "There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements such as gender" was supported.

Hypothesis H1b

"There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on marital status".

Sub-hypothesis H1b underwent testing through an independent sample t-test, as detailed in Table 3 In this analysis, the responder's marital status served as the independent variable, while the impact of demonetization on cashless undertakings served as the dependent variable.

Table 3: Sample t-test (Independent) between Impact of demonetization on e-marketing and marital status

Marital Status	N	SD	Mean	f-value	p-value
Married	420	1.21988	3.2262	2.198	.139
unmarried	80	1.10915	3.3125		

*Significance level (p < 0.05)

** High significance level (p < 0.01)

*** Very high significance level (p < 0.001)

Analysis out of table indicates that responders' marital status categorized as "married" and "unmarried" do not exhibit a notable distinct in the collision of demonetization on cashless undertakings, as the p-value is exceeded than 0.05. Therefore, the hypothesis asserting that "There exists no notable

distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements such as marital status". is accepted.

Hypothesis H1c

"There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on age group".

Sub-hypothesis H1c was escorted utilizing the "One-way ANOVA" technique, with the responders age as the independent variable and the collision of demonetization on cashless undertaking as the dependent variable.

Table 4: One-way ANOVA test explored the association between age group and Influence of demonetization on cashless undertakings

Age	N	SD	Mean	F -value	p-value
0-20	55	.99663	2.4545	10.562	.000***
21-30	125	1.058	3.3600		
31-40	195	1.0618	3.5128		
41-50	110	1.4838	3.000		
Above 50	15	.9759	3.3333		
Total	500	1.2022	3.2400		

*Significance level ($p < 0.05$)

** High significance level ($p < 0.01$)

*** Very high significance level ($p < 0.001$)

Analysis of Table 4 reveals a notable disparity among responders across various age groups regarding the influence of demonetization on cashless undertakings, with a p-value below 0.05. Consequently, the hypothesis suggesting "There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements such as age group" was refuted.

Hypothesis H1d

"There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on education".

Sub-hypothesis H1d was explored utilizing the "One-way ANOVA" technique, with the respondent's education as the independent variable and the influence of demonetization on cashless undertakings as the dependent variable.

Table 5: One-way ANOVA test explored the relationship between education and Influence of demonetization on cashless undertakings

Education	N	SD	Mean	f-value	p-value
H. Sec	60	1.1243	2.9167	10.270	0.000***
U.G.	150	1.2446	2.833		
P.G.	230	1.17728	3.5217		
Others	40	.86787	3.625		
Uneducated	20	.8507	3.250		
total	500	1.2022	3.240		

*Significance level ($p < 0.05$)

** High significance level ($p < 0.01$)

*** Very high significance level ($p < 0.001$)

Findings out of Table 5 reveal a notable distinction among responders with varying education levels concerning the collision of demonetization on cashless undertakings ($F=10.270$, $p=0.000$), as the p-value is below 0.05. Consequently, the hypothesis asserting that "There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on education". is refuted.

Moreover, a Post HOC Multiple Comparisons test, employing the LSD method, was escorted to investigate the association between education and the influence of demonetization on cashless undertakings.

Table 6: Post HOC - Multiple Comparisons test Utilizing LSD Technique, was escorted to evaluate the relationship between Education and impact regarding cashless remittances.

Dependent variable	(I)Qualification	(J)Qualification	Mean Difference (I-J)	Std Error	Sig.
Awareness Towards Cashless transaction After demonetization	Higher Secondary	U.G.	.08333	.17717	.990
		P.G.	-.60507	.16814	.003***
		Other	-.70833	.23676	.024*
		Uneducated	-.33333	.29948	.800
	U.G.	H. Secondary	-.08333	.17717	.990
		P.G.	-.68841	.12173	.000***
		Other	-.79167	.20640	.001***
		Uneducated	-.41667	.27611	.557
	P.G.	H. Secondary	.60507	.16814	.003***
		U.G.	.68841	.12173	.000***
		P.G.	-.10326	.19870	.985
		Uneducated	.27174	.27040	.853
	other	H. Secondary	.70833	.23676	.024*
		U.G.	.79167	.20640	.001***
		P.G.	.10326	.19870	.985
		uneducated	.37500	.31765	.763
	H. Secondary	.3333	.29948	.800	
	UG	.41667	.27611	.557	
	PG	-.27174	.27040	.853	
	Other	-.37500	.31765	.763	

*Significance level (p < 0.05)

** High significance level (p < 0.01)

*** Very high significance level (p < 0.001)

Hypothesis H1e

“There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on Income”.

Sub-hypothesis H1e was investigated using the “One-way ANOVA” technique with responders Income as the independent variable and influence of demonetization on cashless undertakings as the dependent variable.

Table 7: One-way ANOVA test explored the relationship between Income and Influence of demonetization on cashless undertakings

Income	N	Mean	SD	F-value	p-value
0-2	295	3.2373	1.12696	2.306	.057
2-4	80	3.125	1.4175		
4-8	65	3.0769	1.4503		
8-12	20	3.250	.85070		
Above 12	40	3.75	.83972		
Total	500	3.24	1.2020		

*Significance level (p < 0.05)

** High significance level (p < 0.01)

*** Very high significance level (p < 0.001)

Analysis out of Table 1.7 indicates that responders with varying income levels do not exhibit a notable diversity in terms of the influence of demonetization on cashless undertakings, as the p-value is exceeding than 0.05. Consequently, the hypothesis asserting that “There exists no notable distinction among responders regarding influence of demonetization on cashless undertakings, considering their demographic elements on Income”. is accepted.

Conclusion

The research indicates that demonetization exerted a notable influence on cashless transactions in India, manifesting in increased adoption rates of e-wallets and UPI. Nonetheless, persistent challenges such as security apprehensions and disparities in digital literacy persist. The study

underscores the necessity for additional investigation into the effects on different income brackets and the enduring viability of cashless transactions in the long run.

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