ASSESSING THE IMPACT OF DEMONETIZATION: A MACRO AND MICRO ANALYSIS
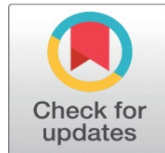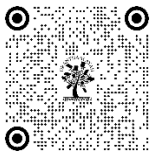
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ABSTRACT

November 7, 2021 announced the end of India's famous five-year demonetization operation. To assess how effective it is, the authors examined both the macro and micro effects. This research was done using secondary data from a poll of 120 regular men and women as well as data provided by the Reserve Bank of India. The survey's findings indicate that there is agreement on how to accomplish targets that include lowering interest rates, boosting cashless transactions, and decreasing corruption. The outcomes show that although the goals have been successfully met in most cases, some areas like micro-level corruption have not seen a substantial decline. People support a more systematic demonetization attempt as well. Policymakers are looking for ways to fight corruption at the national level.
The study demonstrates how monetary policy can be utilized to successfully accomplish a number of objectives.

Keywords: Demonetization, Macro Impact, Micro Impact, Corruption Reduction, Digital Payments, Cashless Economy, Monetary Policy

1. INTRODUCTION

India's Minister of Economic Affairs in a newspaper interview (The Economic Times, 2018) stated that the demonetization targets of Rs. 500 and Rs. 1000 notes, announced on November 8, 2016, have largely been met. These objectives were: controlling black money or curbing corruption, curbing terrorist financing, promoting digital transactions and getting rid of fake currencies. On November 7, 2021, the historic demonetization of five years ended. In this paper, we examine the extent to which these objectives have been achieved based on relevant facts and figures drawn from secondary data sources such as the reports of the Reserve Bank of India and the Comptroller and Auditor General of India. We also assess the perception of ordinary people through a nationwide survey and talk to five experts from the field of economics and banking. Apart from evaluating the effectiveness of the 2016 demonetisation experiment, we checked whether people are ready for another demonetisation if it has to come. Drawing on the Indian experience,

this article aims to see whether demonetisation can be adopted as a time-tested tool by the government. Is demonetization the perfect vaccine against the virus called corruption? We are trying to answer this question.

On the evening of 8 November 2016, the Prime Minister of India announced in an address to the nation that Rs 500 and Rs 1000 notes (the two highest denomination notes on that date) were banned with immediate effect. They were supposed to be deposited with banks. New banknotes entered circulation. The nation was in utter shock. The move was met with sharp criticism from prominent figures such as former Prime Minister of India Dr. Manmohan Singh (who is known as an expert economist) and former Governor of India (RBI). "It must be remembered that no democracy anywhere in the world has taken such a coercive step and withdrawn 86% of the legal tender in one fell swoop" (The Hindu, 2017). Former RBI Governor (Rajan, 2018) stated in his book that neither RBI nor he was in favor of demonetisation. The objectives set for demonetisation had some justification. For example, black money and corruption were seen at their all-time highs in 2010-15. The popular 'Coalgate' scam reported by the Comptroller and Auditor General (CAG) of India in 2012-2013 stunned the nation as the estimated loss to the exchequer was 1.86 million rupees (approx. USD). 25 billion at today's exchange rate). It was found that 194 coal block allocations were done in a non-transparent manner (Inamdar, 2013). In another case related to fraudulent allocation of licenses for 2G telecom networks, the CAG reported a loss of Rs.1.76 libh crore (approx. USD 25 billion) to the exchequer (BusinessToday.in, 2017). In 2010, a fraud involving a loss of 70,000 crores ($9 billion) was reported in the organization of the Commonwealth Games (Times of India, 2020). These cases strongly supported the government's claim that black money and corruption were at their peak.

2. LITERATURE REVIEW

Aggarwal and Narayanan (2017) find that the reduction in the value of domestic agricultural trade continued well beyond the crop season that matched with the shock (demonetization period), contrary to the existing findings that suggest that the negative impact on the economy was nullified. Karmakar and Narayanan (2020) find that households without bank accounts showed a significant decrease in expenditure for November and December-2016. A slight decreased in income was found in November-2016, but after that, the effect dissipated. Zhu *et al.* (2018) found that household income was reduced by about USD 20.6 during a couple of months following demonetization. Local remittances and incomes were adversely affected due to demonetization. Chanda and Cook (2019) write that on 8th November 2016, the Indian Government demonetized 86% of its currency in circulation to curb corruption, black money, and counterfeiting. Yet, as much as 99% of the currency was eventually returned to banks. Tharoor (2017) has criticized the demonetization stating that normal economic activity was disrupted, and the implementation was quite poor. Vyas and Wu (2020) have compared Indian and Chinese Government initiatives to curb corruption. While China has a top-down approach, India relies more on a bottom-up approach supported with top-down initiatives like demonetization. Fair *et al.* (2021) find that demonetization corresponded to increased stone-pelting in the terror-affected State of Jammu and Kashmir. Fouillet *et al.* (2021) find that demonetization has led to faster adoption of digital financial services like POS and mobile payments. It was a game-changer in the adoption of digital transactions. Dharmapala and Khanna (2019), investigating the impact of demonetization on the stock market, find significant positive returns for banks and state enterprises. Subramaniam (2020) posits that show that cash plays an important role in India's informal economy. Importantly, given the heavy dependence of India's formal sector on the informal sector for the supply of material and labor, any disruption in the supply of cash is likely to affect the economy as a whole. Nippani and Malhotra (2020) find that markets positively reacted to demonetization by moving to a cashless system to improve the real estate sector. The move will attract global investors, including hedge funds, to put their money in the Indian real estate market as residential and commercial real estate demand is constantly growing.

3. METHODOLOGY

To draw meaningful inferences and conclusions, a minimum sample size of 100 is recommended (Alreck and Settle, 2003). Accordingly, 120 common men and women from Pune were surveyed through a questionnaire containing agreement accorded to the 5 statements pertaining to the effectiveness in terms of achievement of goals of demonetization:

1) Reduction in corruption

2) Decrease in bank interest rate

3) Increase in digitalization

4) Decrease in terror funding

5) Overall improvement in economy

Likert scales were used for response options. The response options were - 0 - Can't Say, 1 - Somewhat agree, 2 - Completely agree, 3 - Somewhat Disagree, 4 - Completely Disagree.

Responses were received from 120 common men and women. The questionnaire was tested for reliability, and it returned a Cronbach Alpha score of 0.83 and hence was considered reliable. Following hypotheses were formulated:

Ho: Goals of demonetization were not achieved

Ha: Goals of demonetization were achieved

The hypothesis was tested based on the average agreement/disagreement responses to the five statements of the questionnaire. The average agreement/disagreement response of the 120 respondents for all the five statements was taken as the sample mean and it was compared with a hypothesized population mean of 50% agreement/disagreement connoting an event by chance and not due to any statistical significance. A t-test was applied at 95% confidence level and based on the p-value the null hypothesis was tested for rejection or non-rejection.

4. DATA ANALYSIS AND INTERPRETATION

35 respondents were from the Northern region of Pune, 30 were from the Eastern region, 25 were from the Western region, and 30 were from the Southern region. 37 respondents were from the age-group of <30 years, 53 were from the age-group 30-40 years, and 30 were from the age-group of >40 years.

Table 1 gives the five statements items and their agreement ratings by the 120 respondents:

Table 1: Average ratings for the five statements

Sr. No.	Item	Agreement %
1	Reduction in corruption	81%
2	Decrease in bank interest rate	85%
3	Increase in digitalization	83%
4	Decrease in terror funding	74%
5	Overall improvement in economy	81%
	Average	81%

The average agreement for the five statements was 81% and this was compared with the hypothesized population mean of 50%. Results were as under:

Table 2: Summary statistics

Parameter	Value
Sample mean	81%
SD of sample	1.1032
Hypothesized population mean	50%
N	120
t-value	3.07821
p-value	0.00129
Alpha	0.050

As the computed p-value is lower than the significance level alpha=0.05, one should reject the null hypothesis H0, and accept the alternative hypothesis, Ha.

Thus, the null hypothesis goals of demonetization were not achieved was rejected in favor of the alternate that goals of demonetization were achieved.

5. CONCLUSION

We draw our conclusion based on collective consideration of the secondary data sources, the survey responses, and the expert group views. There is not much doubt that demonetization has taken India closer to being a digital economy. All three data sources lead us to conclude that demonetization had a strong impact on corruption, at least at the macro level. We can confidently say that post-demonetization, there has been no "headline" corruption at its peak pre-demonetization. Notwithstanding the hardships faced by the masses during the initial few months of demonetization, people on an overall basis feel that demonetization has achieved its objectives. The significant agreement has been seen to achieve three objectives of demonetization: curbing corruption, reduction in interest rates, and increase in cashless transactions. All the data sources used in this study overwhelmingly point out towards rejection of the achievement of this objective. A major outcome of demonetization has been "e-monetization." Demonetization and e-monetization were the two sides of the same coin. India's transformation into a digital economy has been aggressive post-demonetization. Critics of demonetization are perhaps right but from a short-term perspective. From a long-term perspective of a period like five years, one can feel the benefits like the smooth passage of the economy during the Covid-19 pandemic period thanks to the high levels of digitalized operations.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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