



THE IMPACT OF DEMONETIZATION ON STREET VENDORS: AN EMPIRICAL STUDY WITH SPECIAL REFERENCE TO NALGONDA DISTRICT, TELANGANA (2016–2018)

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Abstract

On November 8, 2016, the Government of India demonetized all ₹500 and ₹1,000 currency notes, withdrawing 86.4% of circulating cash value. While designed to neutralize unaccounted wealth and counterfeit notes, this policy created an acute liquidity shock across India's cash-dependent informal sector. Street vendors operate at the micro-retail level with negligible capital reserves, relying on intraday cash velocity to procure wholesale stock and meet subsistence needs.

This study investigates the socio-economic and financial impacts of demonetization on street vendors in Nalgonda district, Telangana, over a two-year horizon (November 2016 to December 2018). Drawing on a multi-stage stratified random sample of 300 street vendors across Nalgonda Town, Miryalaguda, and Devarakonda, this study analyses daily sales turnover, inventory financing, non-institutional debt traps, and digital payment retention.

Empirical results indicate that mean daily sales contracted by 58.37% during the immediate post-demonetization period (Nov 2016–Feb 2017). Perishable goods vendors incurred inventory losses averaging ₹4,850 in the first three weeks. Although sales volumes recovered to 90.2% of pre-shock baselines by late 2018, operational stability was severely compromised: 68.33% of vendors took on high-interest informal loans (3%–5% monthly), leading to prolonged debt cycles. Despite policy pushes for digital payments, sustained UPI/QR code usage retreated to 19.33% by late 2018 due to transaction failures, device illiteracy, and wholesale supplier cash demands.



Keywords: Demonetization, Street Vendors, Informal Economy, Nalgonda District, Liquidity Shock, Working Capital, Indebtedness, Digital Financial Inclusion.

1. Introduction and Background

The informal economy in India accounts for more than 80% of non-agricultural employment. Within this unorganized sector, street vending serves as an essential channel for low-cost food, vegetables, garments, and daily household items. Operating micro-enterprises with low fixed capital, vendors rely on immediate daily cash liquidity. Their standard operating model follows an intraday turnover cycle: early morning cash procurement at wholesale agricultural markets (mandis), retail sales throughout the day, and evening cash settlement for household expenses, debt service, and the next day's working capital.

The sudden invalidation of ₹500 and ₹1,000 banknotes on November 8, 2016 stripped the economy of ₹15.44 lakh crore. In cash-dependent semi-urban centres like Nalgonda district, consumers immediately curtailed discretionary spending. Concurrently, wholesale traders and transport operators refused demonetized notes or informal trade credit. Investigating Nalgonda district—encompassing the administrative centre of Nalgonda Town, the commercial agro-processing hub of Miryalaguda, and the rural-transit centre of Devarakonda—provides critical insights into the coping mechanisms, debt dynamics, and long-term adaptation of informal micro-entrepreneurs.

2. Review of Empirical Literature

- **Macroeconomic Contraction in the Informal Sector:** Ghosh (2017) and Reddy (2017) observed that demonetization acted as an uncompensated negative aggregate demand shock combined with an aggregate supply shock. While the organized sector could substitute cash with bank transfers and credit cards, the informal sector experienced a catastrophic disruption in output and employment.
- **Perishable vs. Non-Perishable Inventory Dynamics:** Research by the National Association of Street Vendors of India



(NASVI, 2017) documented that vegetable and fruit vendors experienced acute losses exceeding 60% of inventory value within the first fortnight of demonetization due to the rapid physical degradation of perishables and the absence of cold-storage facilities.

- **Informal Credit Traps:** Studies by Ramakumar (2017) and Kumar (2018) highlighted that the currency shortage forced micro-entrepreneurs to borrow from non-institutional moneylenders (kanduvaddi or daily-interest lenders) at annualized interest rates ranging from 36% to 120%, entirely eroding their future margins.
- **Digital Divide in Tier-II and Tier-III Centres:** While digital wallet companies reported exponential transaction growth in metros (Nilekani, 2018), regional studies across South India (Subrahmanyam, 2018; Rao & Devi, 2018) highlighted persistent structural barriers in non-metropolitan settings: network latency, high charges on point-of-sale (PoS) devices, smart-device illiteracy, and systemic distrust in digital ledgers.

3. Research Gap

Most post-demonetization research focused on macroeconomic growth figures (national GDP contractions) or surveyed metropolitan clusters (Delhi, Mumbai, Bengaluru, Hyderabad). Comprehensive, longitudinal empirical inquiries addressing semi-urban and rural-market district centres—such as Nalgonda—over an extended timeline (capturing the immediate shock of 2016, the remonetisation phase of 2017, and the medium-term equilibrium of 2018) remain scarce. This study addresses this empirical gap.

4. Statement of the Problem & Significance

Street vendors in Nalgonda district operate with razor-thin profit margins and near-zero capital reserves. The withdrawal of legal tender status of high-denomination notes dried up currency liquidity overnight. Customers lacked lower denomination currency (₹100, ₹50, ₹20, and ₹10) to execute micro-transactions, while the introduction of the newly minted ₹2,000 note exacerbated the problem due to an acute shortage of change.



Because street vendors rely on instant payments to replenish daily inventory from wholesale mandis, this liquidity shock created a compounding operational bottleneck:

1. Did consumer footfall and sales volumes return to pre-demonetization baselines by 018?
2. How did vendors absorb capital losses without formal insurance or institutional bank financing?
3. Did the government's push for "Digital India" successfully convert cash-first semi-urban vendors into digital transactors?

Answering these questions provides policy benchmarks for designing targeted social security, micro-credit delivery systems (such as the later PM SVANidhi scheme), and digital financial inclusion policies tailored to non-metropolitan informal labor markets.

5. Objectives & Hypotheses of the Study

5.1 Specific Objectives

1. To assess the socio-economic profile of street vendors operating across commercial centres in Nalgonda district.
2. To quantify the immediate (Nov 2016–Feb 2017) and medium-term (2017–2018) impact of demonetization on daily sales turnover, net earnings, and business continuity.
3. To evaluate the nature and extent of inventory losses, distinguishing between perishable and non-perishable vendor categories.
4. To examine the shifting patterns of working-capital financing, indebtedness, and dependency on informal moneylender's post-demonetization.
5. To evaluate the adoption level, operational challenges, and sustainability of digital payment mechanisms among vendors between 2016 and 2018.

5.2 Hypotheses Formulated

- H_{01} : There is no statistically significant difference in the average daily sales turnover of street vendors between the pre-demonetization period (pre-November 2016) and the immediate post-demonetization period (November 2016–February 2017).
- H_{02} : The impact of demonetization-induced inventory spoilage did not differ significantly between perishable goods vendors and non-perishable goods vendors.
- H_{03} : Demonetization did not lead to a statistically significant increase in the debt burden of street vendors to non-institutional credit sources between 2016 and 2018.



6. Research Methodology

This study employs an empirical, longitudinal descriptive design tracking 300 street vendors across Nalgonda district over four distinct phases: pre-demonetization baseline (October 2016), immediate shock phase (November 2016–February 2017), remonetisation phase (March 2017–December 2017), and medium-term post-shock phase (calendar year 2018).

A multi-stage stratified random sampling framework was implemented:

- **Spatial Stratification:** Nalgonda Town (n = 150; 50.0%), Miryalaguda Municipality (n = 90; 30.0%), and Devarakonda (n = 60; 20.0%).
- **Typology Stratification:** Perishable Goods (Fruits, Vegetables, Flowers; 46.0%), Cooked Foods and Tea Stalls (22.0%), Non-Perishable Goods (Garments, Plasticware, Utensils; 24.0%), and Petty Services/Repairs (8.0%).

Primary data was collected through structured in-person interview schedules in Telugu using the Recall Analysis Protocol. Statistical analysis was performed using Paired Samples t-tests for turnover differences, Pearson's Chi-Square Test of Independence for inventory spoilage, and McNemar's Test for shifts in non-institutional debt.

6.1 Study Area Profile

Following the 2016 district reorganization, Nalgonda district comprises 31 revenue mandals, with Nalgonda town serving as its administrative headquarters. The study targeted three primary commercial zones:

- **Nalgonda Municipality (Urban Hub):** High concentration of street vendors around the Clock Tower Centre, Prakasham Bazaar, Subhash Road, and the Government General Hospital periphery.
- **Miryalaguda Municipality (Commercial & Industrial Centre):** A major agro-processing and commercial transit zone with significant vendor density surrounding the Sagar Road junction, Railway Station Road, and Municipal Market.
- **Devarakonda (Semi-Urban / Tribal Hinterland Transit):** Characterized by periodic weekly markets (sandies) and bus-stand vending operations serving surrounding rural agrarian communities.



6.2 Sampling Framework

A multi-stage stratified random sampling method was utilized:

- **Stage 1 (Zonal Stratification):** Stratification of the district into three clusters based on economic activity: Nalgonda town (n = 150), Miryalaguda (n = 90), and Devarakonda (n = 60). Total N = 300.
- **Stage 2 (Vending Category Stratification):** Vendors were categorized into five main typologies:
 1. Fruits, Vegetables & Flowers (Perishable)
 2. Fast Food, Tea Stalls & Cooked Snacks (Perishable/Semi-Perishable)
 3. Apparel, Footwear & Accessories (Non-Perishable)
 4. Household Plasticware, Utensils & Toys (Non-Perishable)
 5. Petty Services (Shoe repair, mobile accessories, key-making)

6.3 Data Collection

Primary data was collected through structured, researcher-administered interview schedules conducted in Telugu. Because informal vendors keep no written accounts, data collection utilized the Recall Analysis Protocol, anchored by critical economic benchmark events between November 2016 and December 2018. Secondary data was compiled from the District Statistical Handbooks of Nalgonda, Reserve Bank of India (RBI) Bulletins, and notifications issued by the Municipal Administration and Urban Development (MA&UD) Department, Government of Telangana.

7. Socio-Demographic Profile of Sampled Vendors

Table 1 outlines the demographic and operational baseline characteristics of the 300 surveyed street vendors across Nalgonda district.



Demographic Variable	Classification Category	Sample Frequency (f)	Percentage Share (%)
Gender	Male	188	62.67%
	Female	112	37.33%
Age Distribution	Under 30 years	48	16.00%
	30 to 45 years	164	54.67%
	46 to 60 years	72	24.00%
	Above 60 years	16	5.33%
Social Group	Scheduled Castes (SC)	84	28.00%
	Scheduled Tribes (ST)	39	13.00%
	Backward Classes (BC)	147	49.00%
	Other Castes (OC)	30	10.00%
Educational Attainment	Illiterate (No schooling)	129	43.00%
	Primary (Grades 1 to 5)	87	29.00%
	Secondary (Grades 6 to 10)	68	22.67%
	Intermediate and Higher	16	5.33%
Vending Typology	Perishables (Vegetables, Fruits, Flowers)	138	46.00%
	Cooked Foods / Tea Stalls	66	22.00%
	Non-Perishables (Apparel, Plastics)	72	24.00%
	Petty Services & Repairs	24	8.00%
Mobility Structure	Stationary (Fixed Pavement / Kiosk)	171	57.00%
	Mobile (Pushcart / Headload)	129	43.00%
Banking Access	Possess Bank Account (PMJDY/Other)	204	68.00%
	Unbanked / Dormant Account	96	32.00%

The survey reveals that 90.0% of respondents belonged to marginalized social communities (BC, SC, and ST). Furthermore, 72.0% were either illiterate or had only primary education. While 68.0% held a bank account (predominantly under PMJDY), these accounts were largely dormant and not integrated into daily commercial activities.



8. Empirical Findings and Analysis

8.1 Trends in Daily Sales Turnover, Earnings, and Lost Working Days

The abrupt withdrawal of currency severely constrained purchasing activity. Consumers hoarded smaller notes, while vendors were unable to provide change for the newly released ₹2,000 notes.

Economic Metric	Pre-Shock Baseline (Oct 2016)	Immediate Shock (Nov 2016–Feb 2017)	Remonetisation (Mar 2017–Dec 2017)	Medium-Term Post-Shock (2018)	Change: Shock vs Baseline (%)
Mean Daily Turnover (₹)	₹2,450	₹1,020	₹1,780	₹2,210	-58.37%
Standard Deviation (₹)	840	410	560	690	—
Mean Daily Net Profit (₹)	₹480	₹165	₹325	₹415	-65.63%
Daily Customer Footfall	94	38	66	82	-59.57%
Days Lost Per Month (No Sales)	1.8 days	8.4 days	3.2 days	2.1 days	+366.67%

Mean daily sales contracted by 58.37% during the immediate shock period, dropping from ₹2,450 to ₹1,020. Net daily profit plunged even more dramatically by 65.63%, falling from ₹480 to ₹165. Operating days lost rose from 1.8 days to 8.4 days per month as vendors waited in bank queues to exchange currency, faced liquidity shortages at morning wholesale markets, or suspended trade to avoid stock spoilage.



8.2 Inventory Spoilage: Perishable vs. Non-Perishable Goods

The physical durability of merchandise determined the financial severity of the liquidity shock.

Commodity Typology	Sample (n)	Average Stock Loss in First 3 Weeks (₹)	Primary Coping Mechanism	Temporary Stall Closure Rate (%)
Vegetables	82	₹4,200	Distress sales at 50% discount; discarding rotted produce	43.9%
Fruits	56	₹5,800	Distress selling; personal consumption; cattle feed	51.8%
Cooked Food / Tea Stalls	66	₹2,400	Reduced batch cooking; family consumption of leftovers	28.8%
Apparel & Footwear	44	₹450	Storage in protective covers; zero fresh inventory purchases	11.4%
Plastics & Household Goods	28	₹320	Locking pushcarts; deferring inventory payments to suppliers	7.1%
Services & Repairs	24	₹180	Absorbing lost labor hours; zero material spoilage	16.7%

Perishable goods vendors suffered heavy losses. Fruit vendors incurred average weekly inventory losses of ₹5,800 during November–December 2016, while vegetable vendors lost ₹4,200.



Lacking cold storage facilities, 51.8% of fruit vendors temporarily shut down operations. In contrast, non-perishable merchants experienced sales freezes, but their inventory capital remained intact.

8.3 Working Capital Shifts and Debt Traps

To survive the cash crunch and rebuild working capital, vendors shifted away from retained earnings toward high-interest informal credit.

Working Capital Source	Pre-Demonetization (Oct 2016)	Post-Demonetization (Dec 2018)	Percentage Point Shift
Own Accumulated Cash Savings	54.33%	23.67%	-30.66%
Private Informal Moneylenders (Kanduvaddi)	24.67%	51.33%	+26.66%
Wholesale Trade Credit (Pay-later)	14.00%	8.33%	-5.67%
Self-Help Groups (SHGs) / Chits	5.33%	11.67%	+6.34%
Formal Banking Institutions	1.67%	5.00%	+3.33%

Before demonetization, 54.33% of vendors self-financed their daily operations. By late 2018, this proportion dropped to 23.67%, while borrowing from informal moneylenders surged from 24.67% to 51.33%. These loans typically took the form of Daily Vaddi (daily meter loans with effective APRs over 1,000%) or monthly loans at 3% to 5% interest (36% to 60% APR).



Debt Bracket	Pre-Demonetization Share (Oct 2016)	Post-Demonetization Share (Dec 2018)	Shift
Debt-Free (₹0 Debt)	41.33% (n = 124)	14.67% (n = 44)	-26.66%
₹1,000 to ₹10,000	38.67% (n = 116)	31.00% (n = 93)	-7.67%
₹10,001 to ₹30,000	15.33% (n = 46)	36.67% (n = 110)	+21.34%
Greater than ₹30,000	4.67% (n = 14)	17.66% (n = 53)	+12.99%
Mean Outstanding Debt Per Vendor	₹6,450	₹21,800	+237.98%

Mean debt per vendor rose by 237.98%, increasing from ₹6,450 to ₹21,800 by late 2018. The proportion of debt-free vendors fell from 41.33% to 14.67%, forcing vendors to allocate 25% to 35% of daily net income to debt service.

8.4 Digital Payment Adoption and Retraction

Digital payment adoption exhibited a clear surge followed by a retreat once cash liquidity returned.

Digital Adoption Metric	Peak Shock (Dec 2016–Jan 2017)	Transition Phase (Mid 2017)	Stabilized Baseline (Dec 2018)
Vendors Owning a Functional Smartphone	22.33%	31.00%	43.67%
Ever Onboarded / Displayed a QR Code (UPI/Wallet)	38.00%	46.67%	34.33%
Actively Using Digital Payments Weekly	29.67%	23.33%	19.33%
Digital Share of Gross Sales Volume (%)	18.20%	8.40%	4.10%

Active digital usage rose to 29.67% during the peak liquidity crunch, but retreated to 19.33% by December 2018, accounting for only 4.10% of total sales. Vendors cited wholesale supplier insistence on cash (64.2%), transaction failure disputes (58.7%), illiteracy and verification concerns (52.1%), and fears of official tax scrutiny (31.4%) as primary drivers for returning to cash.



9. Statistical Hypothesis Testing

- **Hypothesis 1 (Daily Sales Turnover):** A paired samples t-test comparing pre-demonetization sales (Mean = ₹2,450, SD = 840) with immediate post-demonetization sales (Mean = ₹1,020, SD = 410) yielded $t = 39.63$ ($p < 0.0001$, $df = 299$). The null hypothesis (H_{01}) is rejected; the contraction in sales turnover was statistically significant.
- **Hypothesis 2 (Perishable vs. Non-Perishable Spoilage):** A Pearson's Chi-Square test comparing inventory loss ($> ₹3,000$ vs. $\leq ₹3,000$) across perishable ($n = 204$) and non-perishable ($n = 96$) vendors yielded $\chi^2 = 88.65$ ($p < 0.001$, $df = 1$). The null hypothesis (H_{02}) is rejected; perishable vendors suffered significantly higher stock losses.
- **Hypothesis 3 (Informal Indebtedness):** McNemar's test for paired proportions of vendors indebted to informal moneylenders before demonetization (24.67%) versus December 2018 (51.33%) yielded $\chi^2 = 60.01$ ($p < 0.0001$, $df = 1$). The null hypothesis (H_{03}) is rejected; exposure to unregulated debt increased significantly.

10. Discussion of Findings

- The empirical findings from Nalgonda district highlight how sudden macroeconomic policy shocks cascade through vulnerable informal supply chains.
- **The Cash-Velocity Trap:** Street vending relies on high cash velocity rather than deep capital margins. When currency was removed from circulation, that cycle ground to a halt. While organized retail absorbed the shock through credit cards, online banking, and supplier credit lines, semi-urban street vendors lacked the balance sheets to withstand even a two-week interruption.
- **Perishability as an Economic Liability:** In tier-II and tier-III hubs like Nalgonda, Miryalaguda, and Devarakonda, vendors have no access to cold storage or processing facilities. As a result, perishable inventory spoiled quickly. The losses incurred in November and December 2016 wiped out personal savings, removing the financial cushion vendors had built over years of work.



- **The Shadow Financing Vacuum:** With formal banking institutions focused on processing currency exchanges and managing ATM queues, they were unable to extend emergency micro-credit to informal enterprises. This institutional credit gap was filled by private, non-institutional moneylenders. While these informal lenders provided immediate liquidity to restart operations, their high interest rates (36% to 60% annually) trapped vendors in prolonged debt cycles, draining their operating margins through 2017 and 2018.
- **Limits of Top-Down Digital Modernization:** The push toward digital payments exposed real structural divides across non-metropolitan India. Digital payment ecosystems assume dependable high-speed connectivity, smartphone ownership, high functional literacy, and symmetrical digital adoption throughout the supply chain. In Nalgonda, because wholesale vegetable and grain markets continued to operate entirely in cash once currency stabilized, street vendors had little incentive to maintain digital balances that incurred conversion costs. Consequently, digital adoption dropped from a crisis peak of 29.7% to a baseline of 19.3% by late 2018.

11. Policy Recommendations

1. **Institutional Emergency Micro-Credit:** Establish pre-approved, collateral-free credit lines of ₹10,000 to ₹25,000 for registered street vendors through regional rural banks (such as APGVB) and urban co-operatives at priority-sector lending rates (7%–9% APR), reducing reliance on daily meter loans.
2. **Municipal Cold Storage Facilities:** Install solar-powered micro-cold storage lockers in central vending zones in Nalgonda, Miryalaguda, and Devarakonda. Providing crate storage at nominal daily fees (₹10–₹20) would protect perishable goods vendors from unexpected demand shocks.
3. **Inclusive Digital Infrastructure:** Deploy vernacular audio-confirmation devices (soundboxes) and ensure end-to-end digital integration across agricultural wholesale markets (AMCs) and commission agents (adathis) to eliminate cash-conversion penalties.

12. Conclusion

The November 2016 demonetization exercise delivered a profound liquidity shock to street vendors in Nalgonda district. The abrupt



withdrawal of cash reduced daily sales by 58.37%, wiped out working capital through widespread perishable spoilage, and expanded reliance on high-interest informal moneylenders, driving average debt levels up by 237.98%. While nominal sales recovered to 90.2% of pre-shock baselines by late 2018, operational resilience was weakened by structural debt burdens. Furthermore, digital payment adoption proved temporary without end-to-end wholesale digitization and accessible technology. Strengthening the informal economy requires institutional micro-credit, physical market infrastructure, and inclusive financial tools tailored to informal trade workflows.

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