

P.O.S. Terminal Usage Amongst Merchants in Guwahati: Assessing SBI's Market Share with Respect to Competing Banks

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Abstract

Point-of-Sale (POS) terminals form a critical infrastructure of India's digital payments ecosystem. This study examines POS terminal usage patterns among merchants across diverse business sectors in Guwahati, Assam, with a specific focus on assessing the market share of State Bank of India (SBI) relative to competing banks and payment service providers. Primary data were collected from 81 merchant respondents via structured questionnaire (June-July 2024). HDFC Bank leads with 32.1% market share; SBI holds 9.9%. SBI terminals average Rs. 1,17,500 in monthly transactions.

Keywords: *POS terminal, digital banking, merchant acquiring, SBI, market share, Guwahati, fintech, UPI*

1. Introduction

1.1 Digital Banking: An Overview

Digital banking refers to the automation of traditional banking services through internet-enabled platforms and devices, enabling customers to access financial services around the clock, independent of physical branch locations or public holidays (Haralayya, 2021). The shift to digital banking has profoundly altered the bank–customer relationship by enabling seamless, near-instantaneous financial transactions.

1.1.1 Key Features and Benefits

The principal features of digital banking that distinguish it from conventional banking include:

- Remote banking platforms accessible via mobile applications or internet banking portals.
- Simplified onboarding through Video KYC, as permitted by the Reserve Bank of India.
- Rapid fund transfers via NEFT, IMPS, RTGS, and UPI.
- Automated bill payments and auto-debit facilities.
- Real-time account monitoring through SMS alerts and mini statements.
- Investment and loan application services integrated into banking portals.

1.1.2 Future Directions

Emerging technologies are poised to transform digital banking further. Artificial Intelligence (AI) and Machine Learning (ML) will enhance fraud detection and personalisation. Open banking frameworks will facilitate secure data sharing between financial institutions and third-party providers. Financial inclusion will continue to expand via mobile banking for previously unbanked populations. Cybersecurity investment will intensify, with biometric verification and end-to-end encryption becoming standard. Additionally, sustainable banking practices will gain prominence as digital banks pursue environmental and social governance commitments (Chauhan et al., 2022).

1.2 Point-of-Sale (POS) Terminals

A POS terminal is a hardware device deployed at retail and service establishments to process credit and debit card payments. Embedded software reads the magnetic strip or EMV chip on payment cards and communicates with acquiring banks to authorise transactions. The next generation of POS systems encompasses portable, contactless-capable devices that support mobile payment methods including NFC-based wallets and QR code payments.

1.2.1 How POS Terminals Function

When a cardholder initiates a payment, the POS terminal reads the card's magnetic strip or chip, verifies the available balance or credit limit via the payment network (Visa, Mastercard, RuPay, etc.), and authorises the transfer of funds to the merchant's acquiring bank. A receipt is then

issued digitally or in print. The market has progressively shifted from fixed proprietary hardware toward software-based systems deployable on tablets and smartphones, enabling merchants in high-footfall environments—such as restaurants and busy retail stores—to process payments directly at the point of service, reducing waiting times.

1.2.2 Benefits of POS Terminals

- Enhanced customer retention and revenue generation through cashless payment acceptance.
- Improved cash flow management and faster settlement cycles.
- Flexible pricing and instalment options (EMI) for consumers.
- Acceptance of all major card networks: AMEX, CUP, JCB, Mastercard, RuPay, and Visa.
- Round-the-clock technical support (24×7×365 helplines).
- Robust security through PCI-DSS compliance.

1.2.3 Types of POS Terminals

POS terminals are available in several form factors to suit different merchant environments:

- Android POS: A compact, smartphone-like portable device offering mobility and touchscreen interaction.
- Mobile POS (mPOS): A wireless device enabling card acceptance away from a fixed location.
- Portable GPRS: A battery-powered terminal with GPRS SIM connectivity.
- Desktop GPRS: A fixed terminal connected via GPRS SIM.
- PSTN: A terminal connected to the merchant's existing landline infrastructure.

1.3 POS Terminal Offerings: Competing Providers

SBI POS Terminal

SBI Merchant Acquiring Services operate through a network of over 15,000 branches nationwide. SBI POS terminals—also called electronic data capture (EDC) machines or PIN pads—are installed at merchant outlets to facilitate card-based transactions. Given SBI's position as India's

largest bank by market share (~25%), its POS infrastructure is strategically significant for financial inclusion and digital payment adoption.

HDFC Bank POS Terminal

HDFC Bank's POS terminals support credit, debit, and contactless payments and incorporate advanced security protocols to protect transaction data. The bank offers end-to-end support including installation, training, and maintenance.

Paytm POS Terminal

Paytm POS terminals are multifunctional devices accepting credit/debit cards, UPI, Paytm Wallet, and QR code payments. They provide real-time payment alerts and sales analytics through integration with the Paytm merchant ecosystem.

Axis Bank POS Terminal

Axis Bank terminals support contactless payments, EMV chip card reading, digital receipt generation, and multi-currency transactions with real-time reporting capabilities.

Pine Labs POS Terminal

Pine Labs terminals offer comprehensive transaction processing capabilities, including loyalty programme integration, EMI options, and detailed sales statistics, making them particularly popular among large retail chains.

PhonePe POS Terminal

PhonePe POS machines facilitate UPI, card, and digital wallet payments with contactless and QR code scanning capabilities, seamlessly integrated with the PhonePe merchant platform for transaction reporting.

1.4 Objectives of the Study

1. Examine POS terminal usage patterns across diverse merchant categories including petrol pumps, wine shops, hardware stores, and shopping complexes.
2. Evaluate SBI's market share relative to competing banks and fintech providers.

3. Investigate the geographic distribution and performance of SBI POS terminals in Guwahati.
4. Identify the key factors influencing merchant preferences for particular POS terminal providers.
5. Compare average monthly transaction volumes across POS terminal providers.
6. Measure merchant satisfaction with SBI's POS terminal services.
7. Assess SBI's competitive positioning in the Guwahati POS terminal market.
8. Identify actionable areas for improving SBI's service performance and market penetration.

2. Literature Review

The academic literature on digital banking and POS terminal adoption spans multiple disciplines, encompassing technology acceptance, service quality, and market behaviour. The following review situates the present study within this scholarly landscape.

Haralayya (2021) traces the evolution of digital banking in India, documenting how the transition from paper-based to digital operations has expanded the range of financial products available to consumers and improved transactional efficiency. The author identifies digitally-enabled products as central to enhancing customer satisfaction and banking sector growth.

Chauhan et al. (2022) examine customer experience in digital banking through a systematic review, proposing a framework for evaluating critical digital banking variables that influence financial performance. The study underscores the importance of seamless digital interfaces and responsive service in driving customer loyalty.

Wungow et al. (2019) conduct a comparative analysis of male and female customers' perceptions of BRILink POS terminal performance in Manado, Indonesia, across dimensions including security, consumer awareness, perceived ease of use, and usability. The study, drawing on 100 respondents, contributes to understanding gender-based differences in POS terminal adoption.

Moges (2021) evaluates the effect of POS terminal service quality on customer satisfaction at

Dashen Bank, Ethiopia, using the SERVQUAL methodology across a sample of 144 users. The findings reveal that service quality—particularly reliability, tangibility, assurance, and empathy—falls short of customer expectations, offering a cautionary benchmark for banks seeking to improve POS terminal services.

Adeoti (2013) examines challenges to efficient POS terminal usage in Nigeria across 650 respondents in 20 local government areas, identifying network failures, frequent power outages, limited terminal availability, and security concerns as the principal impediments. These findings are germane to the Indian context, where connectivity-related issues similarly affect merchant experience.

Nworie and Okafor (2021) synthesise the literature on challenges facing POS terminal adoption in the Nigerian banking system, noting that high transaction fees, inadequate infrastructure, intermittent network connectivity, and security concerns impede uptake. They recommend fee reductions to broaden access among both banked and unbanked populations.

Gebre (2018) applies the Technology Acceptance Model (TAM) to investigate factors affecting POS terminal adoption by businesses in Addis Ababa, identifying internet connectivity, receipt printing issues, and reconciliation delays as critical barriers. The TAM framework's application to an emerging market context offers a useful theoretical lens for understanding adoption dynamics.

Gizaw (2020) assesses POS terminal service quality at the Commercial Bank of Ethiopia using the E-SERVQUAL paradigm, evaluating seven quality dimensions including reliability, responsiveness, security, efficiency, and empathy. The study's multi-dimensional approach to service quality measurement informs the present study's focus on merchant satisfaction.

Taken together, this literature highlights that POS terminal adoption and satisfaction are influenced by a complex interplay of technological, institutional, and socioeconomic factors. The present study contributes to this body of knowledge by providing empirical evidence from an emerging Indian urban market—Guwahati—where data on POS terminal usage patterns remains sparse.

3. Theoretical Framework and Organisational Profile

3.1 State Bank of India: Organisational Profile

The State Bank of India (SBI) is an Indian multinational public-sector banking and financial services statutory corporation headquartered in Mumbai, Maharashtra. As India's largest bank, SBI commands approximately one-quarter of the national banking market and serves over 500 million customers through a network of 22,542 branches, 63,580 ATMs/ADWMs, and 82,932 Business Correspondent (BC) outlets.

SBI's core organisational values—Service, Transparency, Ethics, Politeness, and Sustainability—underpin its strategic commitment to customer-centricity and innovation. The bank's vision is to serve as the preferred bank for a transformative India, and its mission is to deliver simple, responsive, and innovative financial solutions.

3.1.1 Company Profile

Attribute	Detail
Formerly Known As	Imperial Bank of India
Type	Public Sector Undertaking (PSU)
Stock Listings	NSE: SBIN BSE: 500112 LSE: SBID
ISIN	INE062A01020
Founded	1 July 1955 (as SBI); 27 January 1921 (as Imperial Bank)
Headquarters	Mumbai, Maharashtra, India
Branches	22,542
ATMs	63,580
Countries of Operation	29
Key Products	Retail Banking, Corporate Banking, Wealth Management, Credit Cards
Operating Profit (2024)	₹93,797 crore
Net Profit (2024)	₹61,077 crore
Total Assets (2024)	₹67,33,779 crore

Attribute	Detail
Employees	2,32,296
Parent	Ministry of Finance, Government of India
Website	sbi.co.in

Table 3.1: SBI Organisational Profile (Source: Annual Report, SBI, 2024)

3.2 Historical Development of SBI

SBI traces its institutional lineage to the Bank of Calcutta, established on 2 June 1806, which was re-chartered as the Bank of Bengal on 2 January 1809—the first joint-stock bank in British India to be sponsored by the Government of Bengal. The Bank of Bombay (incorporated 15 April 1840) and the Bank of Madras (1 July 1843) subsequently emerged as the other two Presidency Banks. All three merged on 27 January 1921 to form the Imperial Bank of India, a commercial banking superpower that also served as a quasi-central bank.

Following Indian Independence, the Imperial Bank was nationalised and reconstituted as the State Bank of India on 1 July 1955, under the State Bank of India Act, 1955, inheriting 480 offices and a mandate to support India's planned economic development. The Paper Currency Act of 1861 had previously stripped the Presidency Banks of the right to issue banknotes, with the Government of India assuming sole authority over currency from 1 March 1862.

Over its subsequent decades of operation, SBI has expanded exponentially in terms of branch network, asset base, and digital service delivery, cementing its position as India's systemically important financial institution and a key driver of the government's financial inclusion agenda.

4. Research Methodology

4.1 Research Design

The study employs a descriptive research design, combining qualitative and quantitative approaches to provide a comprehensive picture of POS terminal usage patterns and competitive dynamics in Guwahati's merchant sector. This design is appropriate for studies aimed at documenting and interpreting observed phenomena without manipulating variables (Kothari,

2004).

4.2 Data Sources

Both primary and secondary data were collected. Primary data were gathered directly from merchant respondents through a structured questionnaire. Secondary data were sourced from published academic literature, bank annual reports, RBI publications, and online databases.

4.3 Sampling

A convenience sampling method was employed, with 81 merchants surveyed across 19 localities in Guwahati during June–July 2024. The sample spans diverse business categories including shopping complexes, wine shops, petrol pumps, hardware stores, medical stores, clothing shops, and cosmetics outlets.

4.4 Research Instrument

Data were collected using a structured questionnaire comprising both closed-ended and open-ended items. The questionnaire covered: type of business, company name, location, POS terminal usage (current provider, duration of use, number of terminals), average monthly transaction volume, satisfaction with POS services, valued features, issues encountered, switching intention, and general feedback. All 81 respondents confirmed active use of exactly one POS terminal.

4.5 Analytical Tools

Data were analysed using descriptive statistics. Findings are presented through frequency tables, donut/pie charts, column charts, and line charts to enable intuitive comparative interpretation. Transaction volume figures reported by respondents in approximate terms (e.g., ₹1 lakh+) were conservatively converted to numeric values for analysis.

4.6 Limitations

- The sample size of 81 respondents limits generalisability to the broader merchant population.
- Convenience sampling may introduce selection bias, as respondents were drawn from accessible locations rather than a probabilistic frame.
- Self-reported transaction volume data are subject to recall and social desirability biases.
- The study is geographically confined to Guwahati and may not reflect patterns in other Indian cities.

5. Data Analysis and Interpretation

5.1 POS Terminal Provider Distribution Across Merchants (N = 81)

POS Terminal Provider	Number of Merchants	Market Share (%)
HDFC Bank	26	32.1
Paytm	12	14.8
Pine Labs	10	12.3
State Bank of India	8	9.9
Axis Bank	7	8.6
PhonePe	5	6.2
Union Bank	3	3.7
Bank of India	2	2.5
Canara Bank	2	2.5
ICICI Bank	2	2.5
Bank of Indian	1	1.2
BharatPe	1	1.2
Federal Bank	1	1.2
Yes Bank	1	1.2
Total	81	100.0

Table 5.1: Distribution of Merchants by POS Terminal Provider (Source: Primary Data, 2024)

Interpretation: HDFC Bank commands the largest share of POS terminal deployments among surveyed merchants (n = 26; 32.1%), more than three times the share held by SBI (n = 8; 9.9%). Fintech platforms Paytm and Pine Labs together account for 27.1% of the market, reflecting the growing footprint of non-bank payment service providers. SBI ranks fourth overall, behind HDFC Bank, Paytm, and Pine Labs.

5.2 POS Terminal Provider Distribution by Business Type

POS Terminal Provider	Number of Business Types Served
State Bank of India	6
PhonePe	4
HDFC Bank	3
Axis Bank	2
Bank of India	2
Canara Bank	2
ICICI Bank	2
Paytm	2
Union Bank	2
Bank of Indian	1
BharatPe	1
Federal Bank	1
Pine Labs	1
Yes Bank	1

Table 5.2: Number of Distinct Business Types Served by Each POS Terminal Provider (Source: Primary Data, 2024)

Interpretation: Although SBI ranks fourth by merchant count, it demonstrates the broadest penetration across business categories (6 types), suggesting its terminals are deployed in more diverse merchant environments than any other provider. This is consistent with SBI's role as a universal public-sector bank serving a wide range of institutional and retail clients. PhonePe (4 types) and HDFC Bank (3 types) follow.

5.3 POS Terminal Usage by Location in Guwahati

Location	Number of Merchants
Ganeshguri	33
Christian Basti	10
Silpukhuri	6
Fancy Bazar	5
Lalganesh	5
Ganesh Guri	3
Ganeshguri GS Road	2
Jhalukbari	2
Kahilipara	2
Paltan Bazar	2
Pan Bazar	2
Ulubari	2
Chandmari	1
Dr. R.P. Road, Ganeshguri Dispur	1
Ganeshguri Dispur	1
Jalukbari	1
Kharguli	1
Ulubari, Guwahati	1
Uzanbazar	1
Total	81

Table 5.3: POS Terminal Usage by Location in Guwahati (Source: Primary Data, 2024)

Interpretation: Ganeshguri and its immediate sub-localities (combined $n = 39$; ~48%) dominate POS terminal deployment among the surveyed merchants, likely attributable to the high concentration of commercial retail establishments, shopping complexes, and food service outlets

in that corridor. Christian Basti (n = 10) and Silpukhuri (n = 6) are the next most represented areas.

5.4 SBI POS Terminal Usage by Location

Location	SBI POS Terminal Count
Ganeshguri GS Road	2
Lalganesh	2
Silpukhuri	2
Fancy Bazar	1
Uzanbazar	1
Total	8

Table 5.4: Geographic Distribution of SBI POS Terminals (Source: Primary Data, 2024)

Interpretation: SBI's terminal deployments are distributed across five localities, with the highest concentrations at Ganeshguri GS Road, Lalganesh, and Silpukhuri (two terminals each). This suggests that SBI's merchant acquisition efforts in Guwahati have reached commercially active but relatively peripheral zones rather than the high-density Ganeshguri mall corridor, where HDFC Bank and Pine Labs are dominant.

5.5 Duration of SBI POS Terminal Usage

Duration of Usage	Number of SBI Merchants
Four Years	3
Ten Years	2
Eight Years	1
Five Years	1
Two Years	1
Total	8

Table 5.5: Duration of SBI POS Terminal Usage Among SBI Merchants (Source: Primary Data, 2024)

Interpretation: The majority of SBI POS terminal users ($n = 3$) have been using SBI's terminals for four years, while two merchants have remained with SBI for a decade—the longest usage duration recorded in the study. This indicates strong institutional loyalty among a segment of SBI's merchant base, despite competitive pressure from private banks and fintech providers.

5.6 Duration of POS Terminal Usage: All Providers

Duration of Usage	Number of Merchants
Three Years	27
Two Years	18
Four Years	11
Five Years	10
One Year	4
Six Years	2
Ten Years	1 (SBI only)
Total	73*

*Table 5.6: Duration of POS Terminal Usage Across All Providers (Source: Primary Data, 2024). *Note: 8 respondents reported non-standard durations (e.g., months), excluded from this tabulation.*

Interpretation: The majority of merchants ($n = 27$; 37%) have been using their current POS terminals for three years, followed by two-year users ($n = 18$; 25%). The concentration of adoption in the 2–3-year range coincides broadly with the accelerated push for digital payments following the COVID-19 pandemic and India's continued UPI-led payment ecosystem expansion.

5.7 Average Monthly Transaction Volume by POS Terminal Provider

POS Terminal Provider	Avg. Monthly Transaction Value (₹)
Bank of Indian	2,50,000
PhonePe	1,82,000
ICICI Bank	1,55,001
Paytm	1,49,166
Union Bank	1,20,000
State Bank of India	1,17,500
HDFC Bank	94,231
Yes Bank	80,000
Pine Labs	73,000
Federal Bank	70,000
Axis Bank	65,000
Canara Bank	65,000
Bank of India	60,000
BharatPe	10,000

Table 5.7: Average Monthly POS Transaction Volume by Provider (Source: Primary Data, 2024). Note: Values computed as arithmetic mean of numeric transaction volumes reported by respondents. Approximate figures converted to conservative numeric estimates.

Interpretation: Bank of Indian records the highest average monthly transaction volume (₹2,50,000) driven by its single respondent being a high-volume plastic wholesale enterprise. PhonePe (₹1,82,000) and ICICI Bank (₹1,55,001) rank second and third respectively. SBI ranks sixth (₹1,17,500), ahead of HDFC Bank (₹94,231), suggesting that while SBI has fewer merchant deployments, those terminals process relatively high transaction values—consistent with their deployment at fuel stations and larger trade establishments.

5.8 Average Monthly Transaction Volume by Business Type

Business Type	Avg. Monthly Transaction Value (₹)
Petrol Pump	4,33,333
Plastic Wholesalers	2,00,000
Wine Shop	1,03,750
Clothes Shop	90,000
Hardware	86,667
Shopping Complex	71,122
Medical Store	70,000
Cosmetics Shop	40,000
Food & Beverage	20,000

Table 5.8: Average Monthly POS Transaction Volume by Business Type (Source: Primary Data, 2024)

Interpretation: Petrol pumps generate the highest average monthly transaction volumes (₹4,33,333), more than double that of plastic wholesalers (₹2,00,000) and approximately four times that of wine shops (₹1,03,750). The high throughput at petrol pumps reflects their high-frequency, high-value fuelling transactions. Shopping complexes, despite their large absolute number of respondents ($n = 49$), record lower average volumes (₹71,122), driven by small-format food and beverage outlets within mall environments.

5.9 Merchant Satisfaction with POS Terminal Services

Satisfaction Rating	Number of Merchants	Percentage (%)
Very Good	68	84.0
Good	13	16.0
Total	81	100.0

Table 5.9: Merchant Satisfaction with POS Terminal Services (Source: Primary Data, 2024)

Interpretation: Overall merchant satisfaction is strikingly high, with 84.0% of respondents (n=68) rating their POS terminal services as “Very Good.” No respondents indicated dissatisfaction. This suggests that the market has matured sufficiently for merchants to derive reliable utility from their current POS systems, regardless of provider.

5.10 Most Valued POS Terminal Features: SBI Merchants

Feature Combination Valued	SBI Merchant Count
Transaction Speed + Reliability/Uptime	2
Transaction Speed + Reliability/Uptime + Customer Service	2
Transaction Speed + Reliability/Uptime + Customer Service + Fees/Charges	2
Customer Service only	1
Transaction Speed only	1

Table 5.10: Features Valued Most by SBI POS Terminal Merchants (Source: Primary Data, 2024)

Interpretation: SBI merchants most commonly value a combination of Transaction Speed, Reliability/Uptime, and Customer Service. No respondent singled out fees/charges alone as the primary driver, suggesting that service reliability and transactional performance are the dominant considerations for SBI’s merchant base.

5.11 Most Valued POS Terminal Features: All Providers

Feature Combination Valued	Merchant Count
Transaction Speed + Reliability/Uptime + Customer Service	25
Transaction Speed + Reliability/Uptime	18
Transaction Speed + Reliability/Uptime + Customer Service + Fees/Charges	15

Feature Combination Valued	Merchant Count
Transaction Speed + Customer Service	7
Transaction Speed only	5
Reliability/Uptime + Customer Service + Fees/Charges	1
Transaction Speed + Customer Service + Fees/Charges	1
Transaction Speed + Fees/Charges	1
Other/Not specified	8
Total	81

Table 5.11: Features Valued Most by Merchants Across All POS Terminal Providers (Source: Primary Data, 2024)

Interpretation: The combination of Transaction Speed, Reliability/Uptime, and Customer Service is the most frequently cited feature set ($n = 25$; 30.9%), affirming that operational performance—rather than cost—is the primary driver of merchant satisfaction and provider choice. Transaction speed and reliability collectively dominate across virtually all feature combinations, consistent with the findings of Adeoti (2013) and Gebre (2018) in other emerging market contexts.

5.12 Merchant Feedback on SBI POS Terminals

Feedback Category	Number of SBI Merchants
Good	4
Good work	4
Total	8

Table 5.12: Qualitative Feedback on SBI POS Terminal Services (Source: Primary Data, 2024)

Interpretation: All eight SBI POS terminal merchants provided positive qualitative feedback, split evenly between “Good” and “Good work.” While uniformly favourable, the absence of feedback in higher sentiment categories (e.g., “Excellent” or “Very helpful”) suggests scope for service enhancement to delight rather than merely satisfy SBI’s merchant customers.

5.13 Merchant Feedback Across All POS Terminal Providers

Feedback Category	Number of Merchants
Good	41
Good work	18
All good	6
Helpful	6
All okay	2
Other/Not captured	8
Total	81

Table 5.13: Qualitative Feedback Across All POS Terminal Providers (Source: Primary Data, 2024)

Interpretation: Across all 81 respondents, the dominant feedback theme is positive endorsement of the service (“Good”: $n=41$; 50.6%), with a notable proportion emphasising effort and reliability (“Good work”: $n=18$; 22.2%). The uniformly positive qualitative feedback corroborates the quantitative satisfaction data in Table 5.9, reinforcing the conclusion that the current POS terminal market in Guwahati is delivering broadly satisfactory experiences for merchants.

6. Findings

6.1 Market Share

- HDFC Bank leads the Guwahati POS terminal market with a 32.1% share ($n=26$).
- SBI holds a 9.9% market share ($n=8$), ranking fourth behind HDFC Bank, Paytm, and Pine Labs.
- Fintech platforms (Paytm and Pine Labs combined: 27.1%) collectively rival HDFC Bank’s dominance.

6.2 Geographic Distribution

- Ganeshguri and its sub-localities account for ~48% of all POS terminal deployments, reflecting high commercial activity.
- SBI's terminals are concentrated in Ganeshguri GS Road, Lalganesh, and Silpukhuri—areas with fuel stations, wine shops, and mixed retail—rather than mall-based shopping complexes.

6.3 Duration of Usage

- The modal usage duration across all providers is three years ($n = 27$), consistent with the post-pandemic digital payment acceleration.
- Two SBI merchants have retained SBI terminals for ten years—the longest loyalty observed, underscoring SBI's institutional trust.

6.4 Terminal Allocation

- All 81 surveyed merchants operate with a single POS terminal, suggesting that multi-terminal deployments are not yet prevalent in this market segment.

6.5 Transaction Volume

- Petrol pumps generate the highest average monthly transaction volumes (₹4,33,333), more than twice that of the next highest sector.
- SBI terminals process an average of ₹1,17,500 per month, ranking sixth across providers—higher than HDFC Bank's average—despite fewer deployments.

6.6 Merchant Satisfaction

- 84.0% of respondents rated POS services as “Very Good;” 16.0% as “Good.” No negative ratings were recorded.
- All eight SBI merchants provided positive feedback, though none exceeded the “Good/Good work” sentiment category.
- Transaction speed, reliability/uptime, and customer service are the most valued features across the merchant sample.

7. Suggestions

7.1 Market Share Expansion

SBI should develop targeted merchant acquisition campaigns in high-density commercial zones—particularly Ganeshguri mall corridors and Christian Basti—where HDFC Bank and Pine Labs currently dominate. Competitive pricing structures, zero-cost POS terminal options for small merchants, and bundled banking products (current accounts, working capital loans) could accelerate adoption.

7.2 Geographic Focus

Given Ganeshguri's disproportionate share of commercial activity, SBI should consider deploying dedicated merchant relationship officers and local support centres in this zone. Understanding the factors that have driven HDFC Bank's success in this locality could inform SBI's counter-strategy.

7.3 Long-Term Customer Retention

SBI's most loyal merchants (10-year users) represent a valuable retention asset. A structured merchant loyalty programme—offering terminal upgrades, reduced MDR (Merchant Discount Rate), or preferential banking terms—would reward long-term customers and deter switching.

7.4 Sector-Specific Strategies

Petrol pumps represent the highest-volume sector and currently include SBI terminals at Silpukhuri and Lalganesh locations. SBI should develop purpose-built POS solutions for fuel retail environments, incorporating features such as faster batch processing, offline transaction capability, and direct integration with fuel management software.

7.5 Transaction Volume Optimisation

SBI terminals currently process above-average monthly transaction values relative to HDFC Bank, indicating quality over quantity in its merchant base. SBI should leverage this to communicate a “high-value merchant” positioning while simultaneously expanding volume by targeting mid-size shopping complexes and medical/hardware stores.

7.6 Feature and Service Enhancement

Given that merchants consistently prioritise transaction speed, reliability/uptime, and customer service, SBI should invest in: (a) upgrading terminal firmware to reduce transaction latency; (b) implementing proactive network monitoring to improve uptime; and (c) expanding the 24×7×365 helpline capacity to reduce resolution times. Regular merchant training sessions on terminal features and troubleshooting would also enhance the service experience.

8. Conclusion

This study provides empirical evidence on POS terminal usage patterns and competitive dynamics in Guwahati's merchant sector, with a specific focus on SBI's market position. The findings reveal a highly competitive landscape in which HDFC Bank leads by merchant count (32.1%), while fintech platforms Paytm and Pine Labs collectively command over a quarter of the market. SBI holds a 9.9% share, ranking fourth overall, yet demonstrates the broadest sectoral reach (6 business types) and above-average transaction volumes per terminal (₹1,17,500/month).

SBI's competitive challenge is primarily one of merchant acquisition rather than service quality—all eight SBI merchants are satisfied with their terminals, and some have remained loyal for a decade. However, SBI has not succeeded in penetrating the high-density commercial zones where its private-sector and fintech competitors are most concentrated. Strategic priorities should therefore include targeted geographic expansion, sector-specific product development (particularly for petrol pumps and large retail), and a structured merchant loyalty framework.

Overall merchant satisfaction across all providers is high (84% "Very Good"), indicating that the Guwahati POS terminal market has matured to a point where baseline service standards are broadly met. The next competitive frontier will likely be defined by advanced features—analytics, loyalty integration, multi-currency support, and seamless UPI interoperability—rather than basic terminal functionality. SBI's institutional strength, extensive branch network, and government backing position it well to compete on this frontier, provided it moves decisively to bridge its current market share gap.

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