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Original Article

# Point of Sale System Used by the Start-Up Cafés in Tabaco City, Albay

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**Abstract.** The Point-of-Sale (POS) system is a vital tool that enables business owners to manage daily operations effectively and efficiently. This study examined the use of features and benefits, as well as the challenges and recommended measures, of Point-of-Sale (POS) systems among selected start-up cafés in Tabaco City, Albay. Using a qualitative descriptive research design, data were collected from 7 café owners and managers using a structured questionnaire and follow-up interviews. Findings revealed that most cafés are relatively young enterprises, with 1–3 years in operation and small workforces of fewer than 10 employees. Capitalization levels were generally between ₱501,000 and ₱1,000,000, while average daily patronage remained modest, with most serving fewer than 100 customers. Results indicated that POS systems were frequently used for basic transaction functions, such as order-taking, billing, and receipt generation, but were used only partially or not at all for advanced features, such as inventory management, sales analytics, and customer relationship management. Operational benefits included reduced waiting time, improved accuracy, automated reporting, and real-time inventory tracking, while benefits for patrons emphasized transparency, order accuracy, and enhanced service quality. However, significant challenges were identified, including technical issues (poor internet connectivity, downtime, and compatibility concerns), operational inefficiencies (limited integration with online platforms), financial constraints (subscription and maintenance costs), and human resource challenges (staff errors due to insufficient training). The findings conclude that while start-up cafés recognize the value of POS systems in improving daily operations, their full potential remains underutilized. The study recommends that maximizing POS use requires greater training, infrastructure support, and strategic adoption of advanced features to improve competitiveness and sustainability in Tabaco City's growing café industry.

***Keywords:*** *Cloud-based POS; Point-of-Sale system; Start-up cafés; Technology adoption; UTAUT framework.*

The global café industry has experienced significant technological changes, particularly with the adoption of Point-of-Sale (POS) systems. A POS system is defined as a combination of hardware and software that facilitates daily transactions, inventory management, sales tracking, and customer interactions (Dekopay, n.d.). Similarly, Investopedia.com describes POS systems as computer-based cash registers that process payments, monitor inventory and buying trends, generate invoices, and collect marketing data. Traditionally, cafés relied on manual cash registers and handwritten receipts, but digitalization has pushed businesses worldwide to adopt POS systems to improve operational efficiency, customer service, and decision-making. Digital transformation has significantly influenced Micro, Small, and Medium Enterprises (MSMEs), especially in the food and beverage

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sector, where start-up cafés increasingly adopt POS systems to remain competitive. These systems allow real-time inventory tracking, automated financial reporting, and customer data management, supporting business scalability in a digital economy. The adoption of POS systems gained early momentum in the 2000s, particularly among large coffee chains such as Starbucks and Tim Hortons. Starbucks uses Oracle Symphony as its POS system, which serves as both a payment and data-collection platform, supporting business expansion and personalized marketing strategies (Barraclough & Shirlow, 2024). Similarly, Tim Hortons has relied on Panasonic Company's POS solutions, including its iQtouch POS software, which streamlines order-taking and reduces wait times, thereby maximizing operational output (Panasonic Company, 2019).

Technological advancements have expanded POS system capabilities to include cloud computing, mobile payments, customer relationship management, and real-time analytics. These features became more critical during the COVID-19 pandemic, which accelerated the demand for contactless and digital payment systems. Greubel (2025) emphasized that digital POS solutions are now a core growth strategy in the hospitality industry, as seen in METRO AG's acquisition of POS providers to support integrated digital services for restaurateurs. Market research from 2024 further indicates that 38% of restaurants have adopted POS systems that support both in-store and online orders, reflecting the growing need for unified digital solutions. Despite these advantages, POS system adoption presents challenges, including high implementation costs, cybersecurity risks, reliance on the internet, and the need for continuous staff training. These challenges are more evident among small and independent cafés, particularly in developing countries, where financial and technical resources are limited.

Despite the growing body of literature on Point-of-Sale (POS) system adoption in restaurants and retail establishments, most existing studies focus on large restaurant chains, technologically mature enterprises, or urban food service industries where digital infrastructure and financial resources are relatively stable (Batenburg et al., 2011; Barraclough & Shirlow, 2024; Xin, 2019). These studies primarily highlight the operational benefits of POS systems, such as transaction efficiency, inventory automation, and customer data management. However, limited research has examined how micro-scale hospitality enterprises—particularly start-up cafés operating in small or developing cities—actually utilize POS technologies within their operational constraints.

Furthermore, prior research largely examines technology adoption from a general perspective, without sufficiently explaining the gap between POS system adoption and actual functional utilization. While frameworks such as the Unified Theory of Acceptance and Use of Technology (UTAUT) explain the factors influencing technology acceptance (Venkatesh et al., 2003), fewer studies have explored how these technologies are practically used after adoption, particularly among microenterprises with limited workforce, financial resources, and technical expertise. As a result, the literature lacks empirical evidence on how start-up cafés move from basic transactional POS use toward the strategic utilization of advanced features such as analytics, inventory integration, and customer relationship management.

In the Philippine context, studies on POS systems remain scarce and are often concentrated in major metropolitan areas or large hospitality businesses. There is limited localized evidence on how POS systems are utilized by small hospitality enterprises in provincial cities such as Tabaco City, where businesses operate under different economic, technological, and infrastructural conditions. Consequently, the operational realities, adoption patterns, and utilization gaps experienced by start-up cafés remain underexplored in academic literature.

Addressing this gap, the present study contributes to the literature by examining not only POS system adoption but also functional utilization among start-up cafés in Tabaco City, Albay. Specifically, the study assesses the beginning and current POS features used by café operators, identifies the benefits and challenges encountered during implementation, and explores the operational factors that constrain the use of advanced POS capabilities. By situating the analysis within the UTAUT and Technology Adoption Model Canvas (TAMC) frameworks, this research extends existing knowledge on technology adoption by providing localized, practice-based insights into how micro-scale hospitality enterprises integrate digital tools into daily operations. From this perspective, the study offers both theoretical and contextual contributions by showing that technology adoption in micro hospitality businesses does not necessarily lead to full technological utilization. The findings, therefore, help bridge the gap between technology adoption theory and real-world operational practices in emerging hospitality markets.

POS systems play a critical role in accounting and financial management by automating transaction recording,

reducing human error, and generating financial reports such as revenue summaries, cost of goods sold, and tax-ready documents. These functions are particularly beneficial for start-up cafés with limited manpower. In addition, POS systems support human resource management by enabling employee scheduling, time tracking, and performance monitoring. Barasa (2023) noted that POS-generated data indirectly supports payroll accuracy and performance evaluation while reducing administrative workload. At the regional level, the Bicol Region has experienced growth in food service establishments, with 802 businesses under the accommodation and food service sector in 2022 (Benavidez, P. (2024); CatanduanesTribune.net, 2024). The expansion of cafés in the region encouraged the adoption of POS systems, particularly as cloud-based solutions and mobile payments became more common. However, small café owners continue to face challenges related to system costs, internet connectivity, and technical training. Tabaco City, Albay, reflects these broader regional trends. As a growing, service-oriented city, it offers favorable conditions for start-up cafés, including a low cost of living, investor-friendly policies, and a strong presence in the service sector (tabacocity.com.ph; PNA, 2024). The local café scene has evolved from traditional coffee shops to modern, aesthetic, and community-driven cafés such as Amore Coffee (Cortes, K.; TaraletsAnywhere, 2019), Friends Avenue Café, KofiTea Café, and Javalogy. Despite this growth, only 43.47% of cafés in Tabaco City reportedly use POS systems as of September 2025, indicating uneven adoption among start-up cafés.

Traditionally, cafés in Tabaco City relied on manual transactions, but the growing demand for efficiency and the availability of digital payment platforms encouraged a shift toward POS systems. Nevertheless, high acquisition and maintenance costs, unstable internet connectivity, and limited technical support continue to hinder full utilization. While existing studies highlight POS benefits in general café settings and large chains, there remains limited localized research on how start-up cafés in smaller cities, such as Tabaco City, adopt, use, and optimize POS systems within their specific operational constraints. Therefore, this study aims to assess the use of Point-of-Sale systems among selected start-up cafés in Tabaco City, Albay, focusing on beginning and current features, benefits, challenges, and recommended measures. The study is significant for café owners by providing practical insights to improve efficiency, accuracy, and customer satisfaction. It also benefits government agencies, technology providers, and academic institutions by supporting compliance with Republic Act No. 11032 (Ease of Doing Business Act), Republic Act No. 8792 (Electronic Commerce Act of 2000), Republic Act No. 10173 (Data Privacy Act of 2012), BIR POS registration requirements, and the Magna Carta for MSMEs (Republic Act No. 6977, as amended by R.A. 8289 and R.A. 9501). Furthermore, the findings may inform support programs from DOST-SETUP and DTI, contributing to the sustainable growth and modernization of local café enterprises.

## Methodology

### Research Design

The study employed a qualitative descriptive research design to examine the use of Point-of-Sale (POS) systems among start-up cafés in Tabaco City. Given the limited literature and localized data on POS system adoption among small food businesses in the area, the research aimed to provide a systematic description of the current utilization, features, benefits, and challenges of POS systems in selected establishments. The descriptive approach focuses on presenting participants' experiences and perspectives straightforwardly and systematically, gathered from café owners, managers, and staff directly involved in daily operations. The questionnaire collected information on POS system utilization, operational features, perceived benefits, and challenges encountered during implementation and maintenance.

The data collected were primarily through semi-structured interviews and guided questionnaires, enabling the researchers to capture practical insights. Through this approach, the study provided a clear and objective assessment of the current state of POS system use among start-up cafés in Tabaco City, as well as insights into operational practices and areas needing improvement. The descriptive research design enabled the researchers to systematically present detailed, context-based information on POS system adoption and utilization in the local café industry. The research is delimited to selected start-up cafés in Tabaco City, with data collected from owners, managers, and staff through questionnaires and follow-up interviews conducted in September 2025. The study focuses solely on the utilization, benefits, and challenges of POS systems, excluding established or franchised cafés and other management tools. These delimitations ensured a focused, context-specific analysis aligned with the study's objectives.

### Research Participants

The respondents for the study titled "Point-of-Sale (POS) System Used by the Start-Up Cafés in Tabaco City,

Albay" consist of 4 café owners, 2 managers, and 1 staff member who are actively involved in the day-to-day operations and decision-making processes of their businesses. Of the ten (10) identified potential respondents, only seven (7) participants from selected start-up cafés in Tabaco City took part in the study. These cafés were explicitly chosen because only establishments that use Point-of-Sale (POS) systems were eligible to participate. Each respondent provided valuable insights from firsthand experience regarding the adoption, use, benefits, and challenges of POS technology within their respective businesses.

**Research Instrument**

With guidance from the research adviser and industry experts, the research instrument was carefully developed to align with the study's objectives and relevant literature, ensuring validity and reliability in measuring the utilization of Point-of-Sale (POS) systems among start-up cafés in Tabaco City. The study employed a structured survey questionnaire as the primary data-gathering instrument to obtain quantitative information regarding POS system usage and its operational impact. The primary instruments of the study included a semi-structured questionnaire and an interview guide, using a four-point Likert scale, where 4 indicated frequently used, 3 indicated partially used, 2 indicated seldom used, and 1 indicated never used. The questionnaire consisted of five parts: business profile; assessment of initial and current POS features; perceived benefits for operations and patrons; challenges in implementation and maintenance; and recommendations for system optimization. Data interpretation followed the range interpretation model of Nee and Yunus (2020). In addition, a checklist was developed to identify common POS-related benefits and challenges that may not be fully captured through scaled responses (Sekaran & Bougie, 2019). The combined use of the structured questionnaire and checklist provided a systematic and reliable means of gathering data necessary to analyze the utilization, benefits, challenges, and potential improvements in POS system use among start-up cafés in Tabaco City.

**Data Gathering Procedure**

The data-gathering process began with preparing a formal research letter based on insights from the pilot interview, which the research adviser approved. The letter explained the study's objectives, emphasized voluntary participation, and clarified how the collected data would be used. To allow flexibility, questionnaires and interviews were scheduled at the convenience of café owners and managers. A data collection approach was employed to improve response rates, combining manual distribution of questionnaires with digital follow-ups via SMS and other platforms. The study primarily used semi-structured interviews within a qualitative approach to obtain in-depth insights into POS system utilization. Interviews were conducted with café owners, managers, and staff, with informed consent forms and research documents outlining the participants' roles. To further validate findings, patron interviews, customer feedback forms, and social media reviews were also analyzed to capture customer perceptions of POS-enabled services. To strengthen the research instruments, a pilot interview was conducted at one of their branches, onsite in Legazpi City, the owner of 528 Ilawod Café. This pilot helped refine the questionnaire and interview guide by identifying key POS features, challenges, and areas for improvement, thereby enhancing the study's validity and reliability.

**Data Analysis Procedure**

This study on the use of Point-of-Sale (POS) systems among selected start-up cafés in Tabaco City employed a qualitative descriptive research design to provide a clear and comprehensive account of how POS systems are utilized in small café operations. Qualitative data were collected through semi-structured interviews with café owners, managers, and staff, and were analyzed using thematic analysis. This approach enabled the identification related to POS system utilization, including beginning and current features used, operational and patron benefits, challenges encountered, and recommended strategies to maximize system use. The analysis captured participants' experiences and revealed key contextual factors, including internet connectivity, staff training, and service dynamics, that influence POS system implementation. This method allowed the researchers to examine operational practices, technological limitations, and customer service considerations that shape the effective use of POS systems in start-up cafés. To enhance the credibility and trustworthiness of the findings, data triangulation was employed by integrating information from interviews, online reviews, and surveys. Through this process, the study generated in-depth insights into the contextual realities and operational challenges faced by café operators, providing a comprehensive and meaningful understanding of POS system utilization in selected cafés in Tabaco City, Albay.

**Ethical Considerations**

In conducting the study on the use of Point-of-Sale (POS) systems among selected start-up cafés in Tabaco City,

ethical standards were strictly observed to ensure fairness, transparency, and respect for all participants. The researchers adhered to the provisions of Republic Act No. 10173, which safeguards personal information in both public and private sectors. Before data collection, the researchers clearly explained the study's objectives and purpose to all participants. Informed consent was obtained from café owners, managers, and staff by distributing consent forms, ensuring that participation was voluntary. Participants were informed of their right to decline or withdraw from the study at any stage without any consequences. Confidentiality and anonymity of the data were strictly maintained. Participants' identities and business information were not disclosed, and all responses were coded and securely stored to prevent unauthorized access or misuse. Only the researchers had access to the collected data, which were used solely for academic purposes. The researchers also ensured that no conflict of interest existed throughout the study. The findings were presented objectively, free of any personal or financial bias, particularly regarding POS system providers or vendors. Additionally, the study followed the ethical guidelines and research procedures prescribed by the institution, ensuring that all research activities were conducted in accordance with approved academic standards. Inclusivity was also observed by considering eligible start-up cafés regardless of their size or economic background, thereby minimizing bias in data collection. Finally, the results were reported accurately and truthfully, without manipulation or exaggeration, to preserve the integrity and credibility of the research. These ethical practices ensured that the study upheld the rights, dignity, and welfare of all participants while producing reliable and meaningful findings.

## Results and Discussion

### Business Profile of the Start-up Cafes in Tabaco City

**Table 1.** *Business Profile*

| Cafe | Years of Operation | Number of Employees | Capitalization | Average Daily Patronage |
|---|---|---|---|---|
| 1 | 1–3 years | 1–3 employees | 500,001–1,000,000 | Below 100 customers |
| 2 | 1–3 years | 1–3 employees | 500,001–1,000,000 | Below 100 customers |
| 3 | 1–3 years | 7–10 employees | 300,001–500,000 | Below 100 customers |
| 4 | Less than 1 year | 11 employees | 500,001–1,000,000 | 201-400 customers |
| 5 | 4–6 years | 4-6 employees | 500,001–1,000,000 | Below 100 customers |
| 6 | 4–6 years | 4-6 employees | 500,001–1,000,000 | Below 100 customers |
| 7 | 11+ years | 7-10 employees | Below 100,000 | Below 100 customers |

***Number of Years in Operations***

The years of operation of the selected start-up cafés provide essential context for understanding their stability, experience, and readiness to adopt Point-of-Sale (POS) systems in Tabaco City. The findings reveal varying levels of business maturity among the seven cafés. Three cafés have been operating for 1–3 years, reflecting early-stage establishments focused on building a customer base, refining operational processes, and learning customer preferences. 4, which has been operating for less than one year, represents a newly launched business still undergoing trial operations, personnel training, and technological integration. Meanwhile, 5 and 6, with 4–6 years of operation, demonstrate greater stability, stronger management practices, and a higher capacity to invest in improved technologies and operational systems. 7, with more than 11 years of continuous operation, stands out as the most experienced participant. Its longevity indicates strong resilience, loyal patronage, and a well-established business model, enabling strategic expansion and the adoption of advanced technology. This experience is reflected in the owner's statement:

*"Naisipan naming mag-open ng isa pang branch para sa customers naming malapit dun sa area."* – P7

This highlights strong market positioning and responsiveness to customer convenience. Consistent with this, Batenburg, Huiden, and Plomp (2011) emphasized that business sustainability relies on adaptability, continuous innovation, and the cultivation of customer loyalty. The implications of these varying years of operation are significant for POS adoption. The dominance of cafés in their early years (1–3 years) suggests that many owners depend on POS systems to stabilize daily operations, improve efficiency, and reduce errors. Newly established cafés, particularly those operating for less than a year, face heightened operational and financial risks, underscoring the importance of technology. This is reflected in one café owner's narrative:

*"My family decided to reside here to start a new life closer to our extended family. Working abroad is hard, but I really love to have my own café business."* – P2

This illustrates how personal motivations and newly acquired skills influence entrepreneurial decisions and early technology adoption. Overall, while some cafés exhibit long-term sustainability, most remain in their formative stages, reinforcing the need for technology-driven efficiency and adaptability. Xin (2019) noted that start-ups in the food and beverage sector face significant risks and uncertainties, making the adoption of technology critical to survival and long-term success. Similarly, Venkatesh et al. (2003) noted that technological tools, such as POS systems, support sustained use, enhance operational performance, reduce errors, and improve customer service. For start-up cafés in Tabaco City, POS systems function as both a stabilizing mechanism and a strategic tool for growth and competitiveness.

***Number of Employees***

The number of employees reflects the operational scale and workforce capacity of start-up cafés, directly influencing service quality, efficiency, and the ability to adopt technologies such as Point-of-Sale (POS) systems. Within the Unified Theory of Acceptance and Use of Technology (UTAUT), staffing levels relate to facilitating conditions and social influence, as a limited workforce can restrict the exploration and use of advanced POS features. Cafés with fewer employees often prioritize basic POS functions due to multitasking demands and operational constraints. The findings show varying staffing levels among the cafés. 1 and 2, with 1–3 employees each, operate as micro-scale businesses that rely on multitasking workers to manage service, preparation, and cashiering while maintaining cost efficiency. 5 and 6, each employing 4–6 workers, reflect a transition toward more stable operations with clearer role assignments that support smoother workflows. 3 and 7, with 7–10 employees, indicate medium-scale operations capable of handling higher customer volumes and more complex service processes. 4, with 11 employees, is the most staffed establishment, suggesting greater capitalization, more structured labor divisions, and higher customer traffic.

Staffing size also shapes POS utilization. Micro-sized cafés benefit from POS systems by reducing manual workloads, improving transaction speed, and optimizing limited labor resources. In contrast, cafés with larger teams use POS systems for role-based access control, task coordination, and performance monitoring, thereby enhancing accountability and efficiency. In line with UTAUT, POS adoption improves performance expectancy by supporting operational effectiveness, while effort expectancy ensures usability even for employees with limited technical skills. Most cafés fall under the microenterprise category, consistent with the Department of Trade and Industry's (DTI, 2023) classification. Qualitative data reinforce these patterns. One café owner explained:

*"Konti lang ang hired naming employees para makatipid din sa payroll, anyway tumutulong naman kami dito as owners sa shop."* - P1

This highlights how owners actively participate in daily operations to manage labor costs. While lean staffing allows close supervision and lower costs, it may also lead to workload strain and service delays during peak hours. As noted by Mandabach, VanLeeuwen, and Bloomquist (2003), workforce limitations in small hospitality businesses can affect operational efficiency and customer satisfaction if not correctly managed.

***Capitalization***

Capitalization plays a crucial role in determining the operational scale, technological adoption, and competitiveness of start-up cafés. Within the UTAUT framework, capitalization is closely linked to performance expectancy and facilitating conditions, as greater financial resources enable cafés to acquire equipment, infrastructure, and technologies such as Point-of-Sale (POS) systems. Higher capitalization enables business expansion, adequate staffing, and system upgrades, whereas limited capital may restrict innovation and long-term sustainability. Most participating cafés—1, 2, 4, 5, and 6—reported capitalization between ₱500,001 and ₱1,000,000, indicating a strong financial foundation to acquire quality equipment, maintain sufficient inventory, and adopt advanced technologies, including POS systems and digital payment platforms. 3, with capitalization ranging from ₱300,001 to ₱500,000, represents a moderately funded enterprise capable of sustaining essential operations but with limited capacity for rapid technological or operational expansion. In contrast, 7, with capitalization below ₱100,000, operates on a micro-scale with minimal equipment and basic processes, relying on cost-saving strategies and simplified operations to remain viable.

Across all capitalization levels, cafés prioritize essential investments, including equipment, furnishings, inventory, and basic technology integration, with POS systems recognized as vital tools for operational efficiency and

decision-making (Xin, 2019). However, limited financial resources constrain some cafés' ability to adopt fully accredited or advanced POS systems. As noted by one café owner:

"*Our POS is not really BIR-accredited because it requires many documents and formal registration. Someone once suggested UTAK POS, but it comes with monthly charges and additional costs. That is why we opted for a built-in, offline POS instead.*" – P1

This highlights how regulatory and cost considerations shape technology choices. Consistent with Sanhueza (2019), insufficient capitalization increases financial vulnerability, while higher-capitalized cafés demonstrate stronger adaptability and innovation capacity, supporting long-term sustainability (Batenburg, Huiden, & Plomp, 2011). Overall, variations in capitalization significantly influence POS adoption, operational efficiency, and growth potential among start-up cafés in Tabaco City. Cafés with higher capitalization possess greater strategic flexibility and technological maturity, while those with limited capital rely on lower-cost alternatives that may restrict scalability. These findings underscore the importance of capitalization in shaping the sustainability and competitiveness of start-up café enterprises.

***Patronage***

Patronage is a key indicator of café performance, reflecting customer demand, market reach, and revenue sustainability. For start-up cafés in Tabaco City, customer traffic directly influences daily operations, staffing decisions, inventory control, and technology adoption. Understanding patronage levels provides essential context for assessing business viability and the effective use of Point-of-Sale (POS) systems. Most participating cafés—1, 2, 3, 5, 6, and 7—reported serving fewer than 100 customers per day, a level typical of small cafés operating in a compact city with limited seating capacity and overlapping customer bases. This modest patronage often results in the use of basic POS functions focused on order processing and sales tracking rather than advanced analytics or customer relationship tools. 4, however, stands out with 201–400 daily customers, indicating a strong market presence likely driven by strategic location, brand identity, and accessibility. High customer volume necessitates efficient operations and makes advanced POS features essential for order management, reporting, and service speed.

Qualitative responses further explain these patterns. Owners shared:

"*Most of our customers are students kasi naghihintay lang sila ng next class nila or nagre-review kasi we are just in front of the school.*" - P4

"*Maraming students, families, and workers nearby ang nagdi-dine-in sa amin kasi andito kami mismo located sa centro.*" – P7

These insights highlight the importance of location and proximity to schools and commercial areas. Conversely, low patronage among other cafés reflects intense local competition, as expressed by a Café 3 owner:

*"We are a small city, kaya halos ng mga customer namin minsan ay customer din nila – nagsha-share share lang kami depende sa mood or vibes ng customer."* – P3

This situation limits revenue growth and constrains investment in the workforce and advanced technologies, consistent with the findings of Mandabach, VanLeeuwen, and Bloomquist (2003). Aligned with the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003), cafés with higher patronage show greater motivation to adopt POS systems due to performance expectancy. In contrast, those with lower traffic may hesitate because of cost concerns. Nevertheless, POS systems offer features that facilitate customer retention, inventory control, and data-driven decision-making, even for low-traffic cafés. As noted by the Department of Trade and Industry (DTI, 2023), cafés in the Philippines thrive by responding to younger consumers who value cafés as social and functional spaces. Overall, patronage not only measures café performance but also shapes POS utilization and long-term sustainability, emphasizing the need for start-up cafés in Tabaco City to strategically leverage technology to enhance competitiveness and customer loyalty.

**Assessing the Beginning and Current Features of the POS System**

***Basic Transaction Features***

Basic transaction features, such as recording and processing customer orders, are the most consistently used across the participating cafés. Participants noted that this feature is essential for ensuring that customer orders are accurately captured and communicated to the service or kitchen staff. Café owners and staff emphasized that using POS systems for order processing helps minimize errors, improve coordination among employees, and maintain a smooth service flow during busy periods. Another commonly used feature is the issuance of printed or digital receipts. Many cafés reported that receipts are increasingly used not only to document transactions but also to provide customers with clear records of their purchases. 1, 2, 5, 7 - explained that they gradually adopted digital or printed receipts to enhance transparency and maintain organized sales records for monitoring and reporting purposes. The automatic calculation of sales totals and change was also widely described as a helpful function in daily transactions. 7 staff highlighted that this feature reduces the likelihood of manual computation errors and speeds up the checkout process. As a result, employees were able to serve customers more efficiently, particularly during peak service hours. 6, which processes multiple payment methods, such as card payments or electronic wallets, was reported to be used less consistently across cafés. 1, 2, 3, 5, 6, and 7 - explained that while their POS systems can support various payment options, actual usage depends on customer demand, available payment infrastructure, and internet connectivity. In several cases, cafés still rely primarily on cash transactions. Similarly, the management of discounts, promotional offers, and loyalty programs was described as a feature not yet fully maximized. While some establishments occasionally use these functions for promotional activities, many start-up cafés indicated that their primary focus remains on managing core transactions rather than implementing advanced marketing features through the POS system.

Qualitative insights reinforce these patterns. Café 2 shared:

*"Ito talaga ang pinaka-gagamit namin at importante sa daily operation namin… ni-refer lang itong POS naming from our friend from Manila."* – P2

This highlights the centrality of order-taking, receipt generation, and sales computation. Café 1 explained:

*"Kailangan may resibo para sa kitchen, sa kaha, and sa customer."* – P1

This emphasizes the coordinating role of POS-generated receipts. Conversely, Café 5 noted:

*"Masyado kasing matrabaho… nung una may loyalty card kami pero hindi na naming napagpatuloy,"* – P5

This illustrates how resource constraints limit the adoption of advanced POS, consistent with Xin (2019). These narratives confirm that start-ups prioritize essential functions first, reflecting both performance expectancy and effort expectancy as described in the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003). Overall, POS adoption among these cafés follows a functional trajectory: initial reliance on core transaction tools gradually expands as businesses stabilize. The incremental improvement in weighted means demonstrates growing digital adaptation, yet marketing and analytics features remain underutilized. Interventions such as vendor-led training, financial literacy programs, or government digitalization initiatives could help cafés unlock the full strategic potential of POS systems (Barraclough & Shirlow, 2024; Xin, 2019). In summary, POS technology has been successfully integrated into daily operations but remains predominantly transactional rather than strategic. Café owners must expand the use of advanced features, strengthen digital literacy, and reduce technological barriers to move from basic digital adoption to comprehensive digital empowerment. Such efforts will enhance operational efficiency, support data-driven decision-making, and position start-up cafés in Tabaco City for long-term growth and competitiveness.

***Inventory Management Features***

Participants indicated that POS systems were occasionally used to monitor inventory levels and automatically deduct items after each transaction. These functions are the most familiar to café operators because they are directly linked to sales transactions and routine operations. However, the use of more advanced inventory tools remains limited. Features such as low-stock alerts, supplier order management, and historical inventory reporting were seldom used by 2 and 4. All respondents continue to rely on manual inventory checking, visual monitoring of stock levels, and direct communication with suppliers rather than automated system notifications. This practice

reflects operational habits commonly observed in small business owners, who prefer hands-on supervision of supplies and purchasing decisions. Some establishments demonstrated minor progress in adopting digital inventory tools, indicating a gradual awareness of the potential advantages of automated monitoring. The use of the inventory feature suggests that most cafés still view POS systems primarily as transaction and billing tools rather than comprehensive inventory management systems. These findings highlight an operational tendency among start-up cafés to prioritize immediate, visible control over stock management, aligned with observations in small-enterprise operations. Small business studies on technology adoption suggest that owners often favor familiar manual processes over automated systems, particularly when resources, training, or technical support are limited.

Qualitative responses reinforce these quantitative findings and reveal practical reasons for underuse.

*"Bihira or weekly lang siguro naming nagagamit yung inventory kasi hindi naman agad-agad nauubos yung mga supplies namin kagaya ng coffee beans, flavored syrup, or mga perishable products."* – P1

*"Kadalasan nau-update namin yung inventory pag ubos na pala yung supplies… kaso konti lang talaga kami na staff dito eh maglilinis pa ng shop."* – P6

These insights highlight that inventory management is often reactive and secondary to immediate sales operations. Limited staff, multitasking, and time constraints reduce the consistency with which digital inventory systems are monitored and updated, leading to stockouts, overstocking, and coordination challenges. Batenburg, Huiden, and Plomp (2011) and Xin (2019) emphasize that micro and small enterprises often restrict technology use to essential functions, limiting strategic decision-making. From a technological adoption perspective, low utilization aligns with the Unified Theory of Acceptance and Use of Technology (UTAUT). Modern POS features designed for automated reordering and supplier tracking are perceived as complex, time-consuming, or unnecessary, consistent with Venkatesh et al.'s (2003) assertion that performance and effort expectancy strongly influence adoption. The convergence of quantitative and qualitative data highlights three implications: increased operational risks from stockouts and waste, unused data-driven opportunities for forecasting and menu planning, and limitations in competence stemming from a small staff and a lack of dedicated inventory personnel. Addressing these gaps requires targeted interventions, such as capacity-building programs, vendor-led training, and awareness campaigns that emphasize ease of use, affordability, and the strategic benefits of automated inventory systems.

***Sales Reporting and Analytics***

The findings indicate that café owners and staff primarily use POS systems for basic sales monitoring, particularly for generating daily, weekly, or monthly sales reports. 1, 2, 3, and 7 - noted that these reports help them track daily transactions and monitor general business performance. However, 7 explained that they still rely on manual recording or simple monitoring due to operational limitations, including unstable internet connectivity, intermittent power outages, and limited familiarity with advanced system functions. These challenges reduce the consistency of POS systems for continuous sales analysis and data-driven decision-making. 5 and 6 reported gradually recognizing the usefulness of features that identify best-selling products, as this information helps them determine which menu items are popular among customers. 5 shared that knowing their top-selling items helped them plan inventory purchases and adjust menu offerings. This growing awareness suggests that start-up cafés are beginning to explore the practical benefits of POS data beyond basic transaction processing. Despite these emerging practices, the use of more advanced analytical features—such as analyzing long-term sales trends or comparing sales performance across different days or time periods—remains limited. Respondents rarely review reports because they are more focused on immediate operational tasks, such as order preparation, customer service, and daily financial monitoring. In addition, some café operators reported lacking the technical knowledge or time needed to interpret detailed sales analytics.

Qualitative responses illuminate the practical realities behind these patterns. Café 7 noted:

*"Yung mga best sellers naming coffee drinks ay mabenta talaga. Marami din students na nagtatanong kung ano yung maire-recommend naming."* – P7

This indicates that best-seller tracking is primarily used to validate intuitive recommendations rather than to

evaluate data systematically. Café 2 also shared:

*"Sa pag-generate ng reports, palagi naming nagagawa, at may duplicate din kami na manual in case mag-brownout… swerte na lang if may battery pa yung tablet naming."* – P2

Such responses highlight infrastructure constraints, reliance on manual backups, and practical adaptation strategies that reinforce dependence on traditional reporting methods (Benavidez, 2024; Lanuzo, 2023). The convergence of quantitative and qualitative evidence suggests that café owners use POS systems mainly for basic monitoring, with limited adoption of analytical functions due to low technical training, perceived complexity, and immediate operational priorities (Xin, 2019; Anton, Trupp, Stephenson, & Chong, 2023; Barasa, 2023; Apoorva, 2024). While tracking best-sellers shows early steps toward data-driven management, overall reliance on routine reporting limits opportunities for trend analysis, forecasting, or strategic decision-making (Batenburg et al., 2011; Barraclough & Shirlow, 2024). Applying the Unified Theory of Acceptance and Use of Technology (UTAUT), these patterns align with Venkatesh et al.'s (2003) principles: features perceived as easy to use and directly beneficial—like basic reports—are adopted, whereas advanced analytics are avoided due to perceived effort or limited relevance to small-scale operations (Anton et al., 2023; Ligon et al., 2019). The combined findings highlight four implications: reliance on POS primarily for operational monitoring, dependence on manual backups, missed opportunities for data-driven insights, and emerging awareness of digital tools through best-seller tracking. Overall, sales reporting features remain underleveraged for strategic management, indicating a need for targeted training, infrastructure support, and capacity-building to transform POS use from operational to strategic among start-up cafés.

***Employee and Security Features***

Participants indicated that POS systems are commonly used to record employee log-in and log-out activities, allowing café managers to monitor staff attendance and track work schedules during daily operations. This feature improves accountability among employees, as managers can easily verify who handled specific transactions during a given shift. However, 1, 2, 3, 4, 6, and 7 noted that POS-based attendance tracking is often supplemented by traditional methods such as manual attendance sheets or biometric systems. This suggests that while POS systems contribute to staff monitoring, they have not completely replaced existing attendance management practices. In terms of employee performance monitoring, the use of POS systems appears to be relatively limited. Some café owners and managers acknowledged that the system tracks individual sales performance and transaction records. However, the features are not consistently used to evaluate employee productivity or implement incentive programs. Performance assessment still relies on informal observation or manual reporting rather than systematic POS-generated data. This indicates that although the technology provides tools for performance tracking, these capabilities remain unused in the daily management of staff operations. The study also found that POS systems play an important role in enhancing internal control and operational security. All respondents emphasized the importance of restricting access to sensitive POS functions, such as refund processing, price adjustments, and financial reporting. Managers typically assign user accounts and permission levels to ensure that only authorized personnel can perform certain tasks. This practice helps reduce the risk of unauthorized transactions and strengthens accountability within the café's operational workflow. Additionally, transaction monitoring through POS systems helps prevent fraud and enhance financial transparency. Participants reported that digital transaction records allow them to review sales activities, identify discrepancies, and verify transaction histories. The ability to track orders, payments, and refunds through the system provides an added layer of protection against potential financial irregularities. Although the extent of monitoring varies among establishments, café operators generally recognize the value of POS systems in improving operational security.

Qualitative insights provide context for these patterns. Café 3 noted:

*"Lahat kami same ang access ng log-ins; however, I only trained them kung ano lang yung magagamit talaga nila like sa sales and pag-print ng report. I also have one employee na alam niya kung paano mag-inventory sa system para mas focus siya doon since he works sa kitchen."* – P3

This reflects a role-based, customized approach to access control, in which permissions are assigned based on job responsibilities. Café 7 explained:

*"Na-lo-log in namin yung time ng pag start niya sa work though may separate kaming biometrics… para mas sigurado na recorded talaga yung pag time-in and time-out nila."* – P7

This illustrates a hybrid monitoring strategy in which the POS system complements external attendance tools, highlighting practical adaptation, trust-building, and infrastructural limitations. Collectively, these narratives indicate that cafés are cautiously integrating POS systems for employee monitoring and security while continuing to rely on traditional or third-party tools to ensure reliability and reduce risk. These trends align with prior research. Modern POS systems increasingly offer customizable access controls to safeguard sensitive business information (Barraclough & Shirlow, 2024), while small enterprises primarily adopt POS for security and accountability (Batenburg, Huiden, & Plomp, 2011). However, low utilization of performance-tracking is echoed by Mandabach, VanLeeuwen, and Bloomquist (2003), who emphasize the importance of monitoring staff productivity for training, incentives, and quality control. SMEs frequently overlook advanced POS capabilities due to limited awareness, resources, and technical capacity (Xin, 2019; Lanuzo, 2023).

From a theoretical perspective, the Unified Theory of Acceptance and Use of Technology (UTAUT) explains these patterns: performance expectancy and effort expectancy shape adoption (Venkatesh et al., 2003). Café owners perceive access restrictions and security features as both valuable and easy to implement. In contrast, performance-tracking tools require more analytical effort and are perceived as complex or unnecessary for minor operations. Implications include heightened awareness of internal security, underutilized HR capabilities, gaps in integration with existing systems, and training needs. Overall, start-up cafés in Tabaco City are in a transitional phase of POS adoption: access control and log-in monitoring are improving, but employee performance evaluation and fraud analytics remain underdeveloped, limiting the system's full potential for workforce management and operational accountability.

***Customer Relationship Features***

The findings indicate that these features are among the least used functions of the establishments. Responses from café owners, managers, and staff revealed that most cafés primarily use their POS systems for basic operational tasks such as order processing and payment recording, while customer relationship management functions receive limited attention. All participants noted that recording customer contact information for marketing purposes is not commonly practiced in their establishments. Many cafés rely on walk-in customers and repeat visits rather than maintaining structured customer databases. As a result, systematic tracking of customer information is rarely integrated into their daily operations. Similarly, loyalty programs and reward systems are not widely implemented through POS systems. While some participants acknowledged that loyalty programs could encourage repeat patronage and strengthen customer engagement, they indicated that these features are often overlooked due to limited familiarity with the system or the perception that such functions are better suited to larger businesses. The use of POS systems to send promotional offers through email or SMS is also minimal. Automated marketing tools within the POS system, café operators tend to promote their products through informal channels such as word-of-mouth recommendations or social media platforms. 2, 4, and 7 shared that these methods are easier to manage and require fewer technical skills compared to configuring digital marketing features within the POS system.

Qualitative findings align with these quantitative trends and provide insight into café owners' perspectives. Cafés 2, 4, and 7 noted:

*"Sa soft opening lang naming nagamit yung loyalty card… minsan naiisip pa din naming mag-loyalty card pero depende pa rin… we only post in social media like Facebook for promos and updates."* – P2, P4, P7

This demonstrates an episodic, informal approach to customer engagement, with loyalty programs piloted briefly but not sustained. Instead, social media serves as the primary channel for visibility and communication, effective for engagement but lacking the systematic tracking and feedback mechanisms provided by POS-integrated CRM tools (Barasa, 2023; Brown, 2022). These narratives suggest that café owners value customer connection but lack the structure, expertise, or resources to maintain CRM activities. Immediate operational priorities—serving customers, managing sales, and controlling inventory—take precedence over long-term, data-driven marketing strategies, as reflected in the quantitative results. Barriers such as perceived complexity, financial constraints, and limited technical support further discourage CRM adoption (Xin, 2019; Anton et al., 2023; Lanuzo, 2023).

These findings corroborate Batenburg, Huiden, and Plomp (2011), who observed that SMEs often emphasize efficiency-oriented POS functions while underutilizing customer-centered applications. The operational bias stems from perceptions that CRM tools are complex, costly, or non-essential for short-term survival. Similarly, Xin (2019) noted that small enterprises often avoid CRM due to limited capital, low digital literacy, and limited awareness of long-term marketing advantages. Among Tabaco City start-up cafés, transactional functions overshadow relationship-oriented strategies. The Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003) explains this pattern: café owners perceive CRM features as low in immediate utility and high in maintenance effort, discouraging sustained use despite proven long-term benefits (Anton et al., 2023; Barasa, 2023; Apoorva, 2024). Despite overall underutilization, the modest improvement in loyalty program usage (2.00 → 2.40) signals emerging recognition of CRM's potential. Barraclough and Shirlow (2024) noted that modern POS systems increasingly integrate CRM tools to automate promotions, analyze purchasing behavior, and manage customer relationships. Early experimentation with loyalty cards or rewards is an initial step toward prioritizing customer retention. In competitive markets like Tabaco City, effectively leveraging CRM features can differentiate brand identity, build stronger customer relationships, and foster repeat patronage—critical for long-term sustainability.

Integrating quantitative and qualitative findings yields several implications: 1) Customer Retention Missed Opportunities – limited CRM use prevents cafés from fostering stable customer relationships, relying instead on walk-in traffic and short-term sales; 2) Weak Data-Driven Marketing – without systematic customer data, cafés miss opportunities for tailored offerings, forecasting, and targeted promotions; 3) Competitive Disadvantage – cafés that utilize CRM-integrated POS systems can deliver personalized experiences and targeted campaigns, positioning themselves more competitively; 4) Potential for Digital Upskilling – training programs, simplified POS interfaces, and vendor-led support can build owners' capacity to use CRM tools effectively, encouraging wider adoption. Overall, the analyses confirm that CRM functions remain the weakest link in POS utilization among start-up cafés in Tabaco City. POS systems are primarily valued for transactional efficiency rather than customer engagement, limiting opportunities to cultivate loyalty, differentiate brands, and support long-term growth.

***Integration and Technical Features***

Responses from café owners and staff suggest that employee log-in and log-out recording is moderately practiced in several establishments. 5 explained that this feature helps track staff attendance and system usage during daily operations. However, 1, 2, 3, and 6 reported that they do not consistently rely on this function because the number of employees is small and staff scheduling is often monitored manually by the owner or manager. As a result, the system feature is used only when necessary rather than as a standard operating procedure. Tracking employee sales performance was described as one of the least utilized features. Several participants indicated that although the POS system generates employee sales reports, they rarely access or analyze this data. Instead, managers often rely on direct observation of staff performance or simple daily sales summaries. For many start-up cafés, detailed employee performance analytics are not yet considered essential because their operations are relatively small and involve only a limited staff. Restriction of access to sensitive POS functions is more commonly practiced among establishments. The 5 owner emphasized the importance of controlling access to certain system features, such as voiding transactions, editing orders, or modifying prices. Restricting these functions to managers or supervisors measures to prevent operational errors and maintain accountability during transactions. Similarly, monitoring transactions for possible irregularities or fraud was acknowledged as a useful capability of the POS system.

Qualitative responses provide deeper insight into practical challenges and adaptive strategies. Café 5 staff member shared:

*"Sa pag-order and deliver, ngayon na lang kamo nag-start gumamit ng FoodPanda though hindi talaga integrated sa POS namin, third party siya. Meron din na ibang delivery service dito, which they call us or SMS, minsan they message us online through social media like Facebook."* – P5

This illustrates fragmented digital operations, where online ordering exists but is handled outside the POS system. Relying on manual coordination or third-party tools limits digital integration. The Café 6 owner explained:

*"Somehow enough naman yung storage naming kasi siguro hindi namin masyado namamaximize… We can check our sales and report kasi we use Loyverse, so parang online siya—we can access anytime, anywhere, convenient naman."* – P6.

While cloud-based and mobile-access features exist, they are not fully utilized. Owners may appreciate the convenience, yet engagement remains limited due to unfamiliarity, limited use, or fear of disrupting existing routines. These narratives illustrate "functional minimalism," in which cafés adopt only what is necessary for daily operations and defer more advanced integration due to perceived complexity, cost, or irrelevance. The underutilization aligns with prior studies. Batenburg, Huiden, and Plomp (2011) noted that SMEs often avoid system integration due to financial limitations, inadequate digital infrastructure, and a lack of training. Xin (2019) similarly highlighted that unstable internet, high subscription costs, and security concerns discourage SMEs from adopting cloud-based and interconnected technologies. Limited online ordering integration is significant; as Barraclough and Shirlow (2024) observed, the COVID-19 pandemic accelerated global digital commerce, making online ordering a competitive necessity. Start-up cafés' reluctance reflects infrastructural constraints and behavioral inertia favoring traditional interactions. Declines in cloud storage and remote access further reveal concerns about data protection and reliance on external providers (Xin, 2019; DICT, 2023).

These findings are consistent with the Unified Theory of Acceptance and Use of Technology (UTAUT), which posits that performance expectancy, effort expectancy, and facilitating conditions drive technology adoption. Café owners may perceive advanced POS features as complex, less beneficial, or unsupported by local infrastructure, reducing their adoption. Integrating quantitative and qualitative findings highlights critical implications: 1) Marginal Operations – without accounting integration, cafés remain vulnerable to manual errors, inefficient tracking, and inconsistent reporting; 2) Missed E-Commerce Opportunities – minimal online ordering integration prevents tapping into digital consumer markets and meeting evolving expectations; 3) Digital Vulnerability – reduced cloud backup and remote access increases risk of data loss and operational downtime; 4) Infrastructure and Cost Barriers – internet instability, subscription fees, and limited technical support hinder adoption of advanced features. In sum, the analyses confirm that start-up cafés in Tabaco City exhibit cautious engagement with advanced POS technologies, focusing mainly on core operational functions rather than integrated digital systems. The underutilization of accounting integration, online ordering, cloud storage, and mobile access underscores a digital-readiness gap, where POS tools exist but are not fully embraced due to contextual, economic, and perceptual barriers.

**Benefits of the POS System**

***Operations***

The data show that POS systems play a vital role in enhancing the efficiency of daily business processes in start-up cafés. They accelerate order-taking and payment processing, reduce manual errors, and automate routine operational tasks such as billing, sales recording, and inventory tracking. By improving accuracy, operational control, and workflow efficiency, POS systems enable cafés—often operating with limited staff and constrained resources—to maintain smooth and professional service delivery. These benefits validate the systems' importance as essential operational tools in the selected start-up cafés of Tabaco City (Batenburg, Huiden, & Plomp, 2011; Barasa, 2023). A majority of respondents 1, 2, 3, 4, 5, and 7 reported that POS systems significantly speed up order-taking and payment processing. Faster transactions reduce customer wait times and streamline service during peak hours, reinforcing the POS system's central role in transaction efficiency. Only 6 did not identify this as beneficial, possibly due to reliance on manual methods, lower customer volume, or limited familiarity with the POS interface.

Similarly, most cafés recognized the role of POS systems in reducing manual errors in billing and transactions, as automated calculations limit mistakes commonly associated with handwritten receipts or manual encoding. 1 and 6, however, did not experience this benefit. Café 2 owner shared:

*"We rely more on manual transactions and receipts than we will just transfer or update them on our POS. So basically, we didn't really practice real-time."* – P2

The automation of sales reports emerged as an important benefit, validated by six cafés, with 1 establishment being the only one that did not find it advantageous. For most cafés, automated reporting simplifies financial monitoring, reconciliation, and performance evaluation. Real-time inventory tracking was validated by all cafés except 1, reflecting its relevance in managing stock levels and preventing stockouts, which directly affect customer satisfaction and product availability (Xin, 2019; Gaoat, Cabungcal, Enriques, & Medios, 2023).

In terms of payment flexibility, six cafés valued the POS system's ability to manage multiple payment methods,

including cash, cards, and e-wallets. The lone exception, 7, may rely heavily on cash or serve a customer base preferring traditional payment methods. Integrated sales and accounting functions were also widely recognized as beneficial, except by 6, which may rely on manual bookkeeping or lack software integration. Employee-related features received mixed validation. Monitoring staff performance and attendance was found beneficial by most cafés, but not by 6 and 7, possibly due to small workforce sizes or preference for manual supervision. The least validated indicator was the facilitation of task scheduling and work assignments, which 1, 2, 4, 6, and 7 did not find useful. For small cafés, manual scheduling often suffices, and advanced workforce modules may not be prioritized. Overall, cafés primarily maximize POS features that directly influence revenue, customer service, and operational accuracy (Venkatesh et al., 2003; Anton et al., 2023).

Qualitative responses reinforce strong validation from patrons and owners of POS benefits. The Café 7 owner emphasized:

*"It's actually fulfilling pag may automated receipt ka versus manual receipt…"* – P7

This highlights the psychological and professional advantages of POS-generated receipts, reinforcing customer trust and business credibility. Conversely, several café owners expressed challenges in sustaining CRM-driven initiatives.

*"Sa soft opening lang naming nagamit yung loyalty card… we only post on Facebook for promos and updates."* – P5

*"Starbucks really does personalized offers… hopefully one day magawa din naming."* – P2

These insights confirm that most start-up cafés rely more on social media and organic patronage than on POS-based CRM features. This aligns with Barraclough and Shirlow (2024), who emphasized that modern POS platforms enhance efficiency, reduce transaction errors, and strengthen customer trust. Apoorva (2024) and Colburn (2024) highlighted how newer POS systems integrate real-time analytics and user-friendly dashboards into café workflows, supporting data-driven decision-making. Administrative benefits of automated reporting and accounting integration are also supported by Batenburg, Huiden, and Plomp (2011) and Barasa (2023), who noted that such features reduce clerical workload and support strategic planning. Real-time inventory monitoring addresses recurring industry challenges, as highlighted by Xin (2019) and Gaoat et al. (2023), preventing stockouts and ensuring consistent product availability.

The limited use of advanced workforce management features reflects insights from Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Adoption Model Canvas (TAMC) by Anton et al. (2023), emphasizing that perceived usefulness drives adoption. Café owners prioritize POS functions that offer immediate operational benefits, while secondary features—such as staff scheduling—are less likely to be used. This finding aligns with Brown (2022), who noted that digitalization trends in cafés prioritize speed and customer experience over human resource integration, and with Beltran (2024), who emphasized balancing automation with workforce adaptability and ethics. The implications extend beyond selected start-up cafés. They underscore the need for capacity-building and awareness initiatives to help small business owners maximize POS capabilities. Government agencies, local business associations, and technology providers could collaborate on training programs that emphasize the strategic use of POS for financial management, HR planning, and operational sustainability. POS developers might consider customizing system interfaces to highlight underused features—such as employee monitoring or scheduling—thereby making them more intuitive for small enterprises (Apoorva, 2024; Guirdham, 2024). Ultimately, results suggest that while the selected start-up cafés in Tabaco City have embraced POS technology for efficiency and customer satisfaction, the full realization of its benefits depends on sustained education, technical support, and a broader cultural shift toward comprehensive digitalization of café operations (Anton et al., 2023; Lanuzo, 2023; Daily Guardian, 2024).

***Patrons***

The data show that POS systems are essential in enhancing daily business processes in start-up cafés. They accelerate order-taking and payment processing, reduce manual errors, and automate routine tasks such as billing, sales recording, and inventory tracking. These functions improve accuracy, operational control, and workflow efficiency, enabling cafés with limited staff to maintain smooth service delivery (Batenburg, Huiden, & Plomp, 2011; Barasa, 2023). Most respondents—1, 2, 3, 4, 5, and 7—reported that POS systems significantly speed up

order-taking and payment, reducing customer wait times. Café 6 did not identify this benefit, possibly due to reliance on manual methods or lower familiarity with the system. Similarly, most cafés valued error reduction in billing and transactions. Café 2 owner shared:

"*We rely more on manual transactions and receipts than we will just transfer or update them on our POS. So basically, we didn't really practice real-time.*" – P2

Automated sales reporting was found advantageous by six cafés, while real-time inventory tracking was recognized by all except 1, emphasizing its role in managing stock and preventing shortages (Xin, 2019; Gaoat, Cabungcal, Enriques, & Medios, 2023). Six cafés appreciated POS flexibility in managing multiple payment methods; integrated sales and accounting functions were also valued, except by 6. Employee monitoring received mixed validation, and task scheduling was least used by 1, 2, 4, 6, and 7, as manual scheduling suffices for small staff sizes (Venkatesh et al., 2003; Anton et al., 2023).

Qualitative responses reinforce these benefits. Café 7 owner noted:

"*It's actually fulfilling pag may automated receipt ka versus manual receipt…*" – P7

However, CRM-driven initiatives were underutilized. Café 5 admitted:

"*Sa soft opening lang naming nagamit yung loyalty card… we only post on Facebook for promos and updates.*" – P5

"*Starbucks really does personalized offers… hopefully one day magawa din naming.*" – P2

These insights confirm reliance on social media over POS-based CRM features. This aligns with Barraclough and Shirlow (2024), Apoorva (2024), and Colburn (2024), highlighting efficiency, error reduction, and data-driven decision-making. Automated reporting and accounting integration reduce workload and support planning (Batenburg, Huiden, & Plomp, 2011; Barasa, 2023), while real-time inventory monitoring prevents stockouts (Xin, 2019; Gaoat et al., 2023). Limited adoption of workforce management features reflects perceptions of their usefulness. Café owners prioritize immediate operational benefits, while staff scheduling is less used, consistent with UTAUT and TAMC insights (Venkatesh et al., 2003; Anton et al., 2023). This aligns with Brown (2022) and Beltran (2024), who emphasize operational speed over HR integration. These findings highlight the need for capacity-building and awareness initiatives. Training programs by government, business associations, and technology providers could improve financial, HR, and operational management. POS developers might customize interfaces to make underused features, such as employee monitoring, more intuitive (Apoorva, 2024; Guirdham, 2024). Overall, selected start-up cafés in Tabaco City embrace POS technology to improve efficiency and customer satisfaction, but the full benefits depend on sustained training, technical support, and a cultural shift toward comprehensive digital adoption (Anton et al., 2023; Lanuzo, 2023; Daily Guardian, 2024).

**Challenges Encountered by Start-up Cafes in Using the POS System**

While Point-of-Sale (POS) systems provide clear advantages in transaction efficiency, accuracy, and customer service, their utilization in start-up cafés is constrained by technical, financial, operational, and human-related challenges. Technical issues such as system errors, downtime, and reliance on the internet, coupled with recurring subscription and maintenance costs, limit daily operations and long-term sustainability. Operational difficulties, including integration with delivery platforms, menu updates, and user access controls, further reduce system effectiveness. Human factors—like insufficient training, staff resistance, and unfamiliarity with POS features—also hinder adoption. Identifying these obstacles is crucial for understanding why certain POS functionalities remain underutilized and how cafés can maximize the system's full potential (Venkatesh et al., 2003; Anton et al., 2023). The participating cafés in Tabaco City faced diverse challenges aligned with UTAUT constructs. 2 and 7 experienced errors due to limited familiarity with POS functions, while 5 and 6 encountered inaccurate inventory tracking and staff learning difficulties, illustrating gaps in effort expectancy. Technical instability was prevalent: 4 and 7 reported poor internet connectivity, disrupting cloud-based operations, 5 and 6 faced system downtime and crashes, and 1 noted compatibility issues with external devices and software, weakening facilitating conditions. Operational inefficiencies were also evident: 2, 3, 4, and 7 struggled with limited integration with online ordering platforms; 4 faced difficulties updating menus; and 4, 5, 6, and 7 struggled with user access assignment, reflecting constraints on system flexibility and security management.

Financial barriers compounded these challenges. 7 highlighted high software subscription costs, while 2 and 7 struggled with maintenance and upgrade fees. 2 emphasized the burden of replacing systems, noting that frequent upgrades may exceed small cafés' financial capacity. These pressures reduce performance expectancy, as owners question whether advanced POS features justify their costs. Human behavior and organizational readiness also influenced adoption: 4 noted staff resistance to using the POS system, and 2 reported additional technical issues, such as cash registers failing to open, inconsistent device functionality, and the financial difficulty of sustaining application fees. Taken together, these challenges demonstrate that although POS systems offer substantial operational benefits, their effectiveness depends on stable infrastructure, technical competence, financial resources, and staff readiness. 2 emphasized financial problems with upgrading the system, highlighting how compounded technical, operational, and economic limitations impede full adoption. Consequently, most start-up cafés in Tabaco City rely on basic POS functions such as sales recording and receipt printing. At the same time, advanced features—CRM tools, analytics dashboards, delivery platform integration, and security controls—remain underutilized. Without addressing these barriers, the full potential of POS systems to enhance competitiveness, service quality, and long-term sustainability in the café industry will remain unrealized (Venkatesh et al., 2003; Anton et al., 2023).

## Conclusion

This study evaluated the utilization of Point-of-Sale (POS) systems among selected start-up cafés in Tabaco City, Albay, and found that most establishments were in their early years of operation, characterized by small workforces, modest capitalization, and a developing customer base. These conditions influenced the cautious yet necessary adoption of POS technology to improve efficiency. Findings showed that cafés consistently maximized basic transaction functions, while employee and security features improved over time. However, inventory management, customer relationship management, and advanced analytics remained underutilized, indicating limited awareness and capacity to leverage system capabilities fully. POS systems were found to enhance operational efficiency, transaction speed, sales monitoring, and overall service quality, with patrons expressing positive feedback on these improvements. Despite these benefits, cafés faced challenges including high system costs, limited technical skills, unstable internet connectivity, and low utilization of advanced features. The findings carry several important implications. Cafe owners and managers should prioritize staff training, invest in user-friendly POS platforms, and gradually adopt advanced features such as inventory automation and analytics to support data-driven decision-making. Local government units (LGUs), together with agencies such as the Department of Trade and Industry and the Department of Science and Technology, may strengthen support programs by providing financial assistance, digitalization grants, and training initiatives tailored to micro and small enterprises, while also simplifying compliance requirements for POS accreditation. Academic institutions offering hospitality and tourism programs should integrate POS system training, digital business tools, and data analytics into their curriculum to better prepare students for technology-driven operations in the industry. Future studies may explore comparative analyses across different cities or hospitality sectors, examine the long-term impact of POS adoption on business performance, or investigate strategies to improve the adoption of advanced POS features among microenterprises. Strengthening these areas will enable cafés in Tabaco City, Albay, to fully maximize POS capabilities, enhance competitiveness, and support sustainable growth in the evolving hospitality industry.

## Contributions of Authors

The author conceptualized the study, designed the research, collected and analyzed the data, and prepared and finalized the manuscript.


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There is no known conflict of interest.


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