



Enhancing pawnshop service innovation in the digital era: A qualitative study on customer experience and operational transformation at Pegadaian Wonosari

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ABSTRACT

Background: The digital era compels traditional financial institutions, including pawnshops to innovate. However, studies on pawnshop digital transformation balancing operational efficiency with trust-based, relational services remain limited. This study explores the dual impact of digital service innovation on customer experience and operational transformation in a pawnshop context. **Method:** This qualitative, interview-based case study was conducted at a public pawnshop in Indonesia (Pegadaian), which also funded the research; this dual role is disclosed for transparency. Data were collected through semi-structured interviews (n = 4), non-participant observation, and document analysis, and were thematically analyzed using an interactive model of data condensation, display, and conclusion drawing. **Findings:** Results reveal a duality, digital tools enhance transactional convenience and back-office efficiency but create a relational gap in customer trust for complex transactions and introduce workforce adaptation challenges. Customers abandoned digital channels for high-value or repeat pawn transactions, citing the absence of face-to-face reassurance. Frontline staff reported added reconciliation duties and role ambiguity, relying on informal peer learning rather than formal retraining. Branch managers observed routine transactions shifting to digital channels, while trust-intensive services remained counter-bound. Interpreted through Service-Dominant Logic and digital transformation theory, technology acts as an operant resource that must augment, not replace, human-centric value co-creation. **Conclusion:** Successful innovation requires a digitally-augmented service model that aligns internal process optimization with preserving trust-based customer relationships. By sustaining trust-based access to microfinance amid digital disruption, this model strengthens the economic resilience of low- and middle-income households and supports sustainable, inclusive financial development. **Novelty/originality of this article:** This article contributes a novel, integrated framework for digital transformation in trust-intensive microfinance, uniquely identifying the persistent relational gap and workforce adaptation dissonance as critical, underexplored factors in the pawnshop sector's evolution.

KEYWORDS: digital transformation; pawnshop; service innovation.

1. Introduction

The global financial services sector is undergoing a profound transformation driven by digitalization, characterized by the integration of technologies such as artificial intelligence, blockchain, and mobile platforms (Gretz et al., 2017). This paradigm shift transcends mere automation; it is re-engineering the fundamental architecture of finance, enabling hyper-personalized services, creating new asset classes like cryptocurrencies, and fostering

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entirely decentralized models of lending and exchange. These disruptive forces are dissolving traditional industry boundaries, as technology firms and fintech startups now compete directly with established banks and credit institutions by offering superior user experiences, lower costs, and greater accessibility. The imperative for incumbents is no longer optional, it is existential. To remain relevant and competitive, they must evolve from product-centric entities to agile, platform-based service providers that can leverage data, anticipate customer needs, and operate with unprecedented efficiency and transparency (World Bank, 2021).

This sweeping digital tide sets the urgent and inescapable context for all financial actors, including the long-established and traditionally analog pawnbroking industry, which must now navigate this new technological landscape to secure its future. For pawnshops, this is not a peripheral trend but a central strategic challenge that questions their traditional operating model. The industry's historical reliance on physical presence, tangible collateral, and face-to-face trust-building places it at a fascinating crossroads. On one hand, digitalization presents transformative opportunities to expand reach through online platforms, enhance valuation accuracy with data analytics, streamline operations with cloud-based management, and build transparency with secure digital records. On the other hand, it threatens to make their brick-and-mortar, high-touch model seem antiquated if they fail to adapt (*Otoritas Jasa Keuangan*, 2021).

The core task, therefore, is to chart a course of digital integration that does not discard their unique strengths; personalized service, expertise in physical assets, and community trust, but rather amplifies them. They must adopt technology not as a replacement for their human element, but as a tool to augment it, making their services more accessible, efficient, and reliable while preserving the essential relational foundation that distinguishes them from purely algorithmic lenders. The future viability of the pawnbroking industry hinges on its ability to perform this delicate synthesis, transforming from a purely analog institution into a hybrid entity that is both digitally empowered and authentically human (Kaplan & Haenlein, 2019).

This shift is fundamentally altering competitive landscapes, redefining value propositions, and reshaping consumer expectations for speed, transparency, and hyper-personalization. It compels all institutions, from global banks to community-based lenders, to re-evaluate their operational models and customer engagement strategies. Within this sweeping tide of change, traditional institutions like pawnshops occupy a unique position. They are entrenched entities with legacy processes and strong community ties, yet they face the same imperative to modernize or risk obsolescence. Their transformation, however, is not merely a matter of adopting new software; it is a more complex endeavor of integrating disruptive technologies into a business model that is inherently personal, trust-based, and built on the physical appraisal of tangible assets. This complexity arises because the core value proposition of a pawnshop extends far beyond simple financial transactions. It is deeply rooted in interpersonal judgment, the tactile assessment of collateral, and the cultivation of long-term, trust-based relationships with clients, often within a local community context (Alamsyah & Othman, 2020).

Therefore, digitization in this sector cannot follow a straightforward lift and shift model. It requires a nuanced redesign of service processes where technology is woven into the fabric of these personal interactions without unraveling them. The challenge lies in deploying artificial intelligence for valuation estimates or blockchain for secure record-keeping in a way that enhances, rather than replaces, the expert eye of the pawnbroker and the reassurance of a handshake. It involves using mobile platforms not to create distance, but to foster more frequent and transparent communication. Successfully navigating this endeavor means viewing technology not as an end in itself, but as a set of tools to augment human expertise, strengthen relational trust, and make the essential, physical act of pawning an asset more accessible, secure, and efficient. This is a strategic and cultural undertaking that redefines how value is co-created at the intersection of bytes and tangible goods (Kumar & Reinartz, 2018).

Therefore, while the broader sector's digitalization provides the context and the tools, the specific journey for pawnshops involves navigating the delicate balance between leveraging technological efficiency and preserving the human-centric essence of their service, a challenge that forms the central investigation of this study. This shift demands that traditional institutions, including pawnshops, evolve to meet changing consumer expectations for speed, convenience, and transparency (Ahmed & Saleh, 2017). Historically, pawnbroking has been a vital source of microcredit, yet its operational model often faces perceptions of being outdated and lacking in innovation (Julio, 2018). Within this broader context, the specific challenge for pawnshops lies in strategically leveraging digital innovation to enhance their core service value proposition without eroding the essential human-centric and trust-based elements of their business. This is a delicate balancing act, as the drivers of digital efficiency; automation, standardization, and remote access, can inherently conflict with the personalized, discretionary, and relational nature of traditional pawnbroking. The strategic imperative, therefore, is to identify and implement digital solutions that act as enablers rather than replacements. For instance, a mobile app should not merely digitize a form but should provide transparent, educational content that builds a customer's confidence before they even enter the shop. A digital inventory system must not depersonalize a pledged item but should offer a secure, traceable record that enhances the customer's sense of custodial trust. The innovation must be directed towards augmenting the pawnbroker's expertise, perhaps through data analytics that inform valuation, and deepening the customer relationship; through streamlined communication channels that maintain a personal touch. Ultimately, the challenge is to engineer a symbiosis where technology handles transactional friction and expands reach, thereby freeing human agents to focus on the high-trust, high-judgment interactions that constitute the true heart of the service. Failure to achieve this balance risks creating a hollow efficiency that alienates the core clientele while failing to attract a new, digitally-native customer base that still seeks assurance in sensitive financial matters (Nambisan et al., 2019).

The theoretical underpinning of this study integrates Service-Dominant Logic (S-D Logic), which posits that value is co-created through interactions between the provider and the customer Lee & Trimi (2018) with frameworks of digital business transformation. S-D Logic shifts the focus from tangible goods (the pawned item) to the application of operant resources (knowledge, skills) in service provision. Concurrently, digital transformation theory provides a lens to analyze how technology reshapes internal processes and external engagement models. The synthesis of these theories establishes the state of the art, suggesting that successful innovation in this sector is not merely technological adoption but a holistic redesign of service ecosystems to foster superior co-created experiences (Fowler et al., 2018a, 2018b).

Despite growing literature on fintech and digital banking, there exists a reported gap in detailed, qualitative investigations focused specifically on pawnshops' digital transition from a dual operational and customer experience perspective. Existing studies often emphasize macroeconomic impacts or technological feasibility in isolation, leaving the nuanced, lived experiences of both customers and employees during this transformation underexplored (Dexler, 2016; Adams, 2018). This gap raises a critical problem, without a deep understanding of how digital tools are integrated into frontline service encounters and back-end operations, pawnshops risk implementing solutions that are misaligned with user needs, potentially diminishing trust and value co-creation. Such misalignment can manifest in two detrimental ways. Externally, customers may perceive new digital channels as impersonal, confusing, or insecure, leading to frustration and a retreat from the service altogether, thereby negating any intended convenience. Internally, employees may be burdened with clunky systems that disrupt their workflow rather than support it, creating resistance, reducing efficiency, and impairing their ability to serve customers effectively. The consequence is a double erosion: the erosion of the customer's trust in the institution's competence and fairness, and the erosion of the employee's capacity to act as a skilled, empathetic agent of value. This can sever the very link, the collaborative interaction between informed staff and confident customers, that is central to service-dominant logic.

Therefore, the implementation of technology cannot be driven by Information Technology (IT) specifications alone; it must be informed by a holistic, ethnographic understanding of the lived experiences and practical realities of both the people using the service and the people delivering it. Strategic digital investment, in this context, becomes an exercise in human-centered design, where the measure of success is not just system uptime or app downloads, but the strengthening of the relational and procedural fabric that sustains the business.

Therefore, the purpose of this manuscript is to explore and analyze the process of service innovation in pawnshops within the digital era. The study aims to provide an in-depth qualitative understanding of (1) how digital innovations are reshaping customer experiences and perceptions of pawnshop services, and (2) how these innovations drive operational transformation within pawnshop organizations. This dual focus is essential for capturing the holistic and often reciprocal nature of technological change. By investigating the customer perspective, the research seeks to uncover the lived reality of interacting with a digital pawnshop interface; how it alters perceptions of convenience, fairness, and trust, and where new points of friction or satisfaction emerge. Simultaneously, by examining operational transformation, the study delves into the internal re-engineering of processes, roles, and workflows; it seeks to understand how management strategies are implemented, how employees adapt to new tools and responsibilities, and where efficiencies are gained or new bottlenecks are created. Crucially, the qualitative approach allows the research to connect these two domains, revealing how changes on the organizational side directly manifest in, and are sometimes reshaped by, the experiences and behaviors of customers. Ultimately, this comprehensive inquiry aims to move beyond speculation and surface-level metrics to generate rich, contextual insights into the complex, human-centered dynamics at the heart of a traditional industry's digital evolution.

This study is guided by a one-tailed proposition derived from the theoretical synthesis: that a strategic, customer-centric integration of digital tools will positively enhance both the perceived value of pawnshop services and the efficiency of their internal operations, as evidenced through qualitative accounts of experience and transformation. This directional proposition serves as a foundational lens, focusing the investigation on the anticipated beneficial outcomes of well-orchestrated digital integration. It posits that when technological implementation is deliberately aligned with genuine customer needs and embedded within a supportive operational framework, a synergistic effect occurs. This synergy is not merely additive but multiplicative, where improvements in back-office efficiency, such as faster processing times or reduced errors, directly contribute to a more seamless and reliable customer experience, thereby elevating the service's perceived value. Conversely, a positive shift in customer perception, driven by increased convenience and transparency, can generate higher engagement and trust, which in turn justifies and sustains further operational investments. The qualitative methodology is uniquely suited to test this proposition, as it seeks not to quantify a statistical correlation but to gather rich, narrative evidence that illuminates the causal pathways and contextual conditions through which this positive enhancement manifests, or, crucially, where it breaks down, in the real-world setting of the pawnshop.

2. Methods

The author employs a qualitative case study approach to answer the research questions regarding customer experience and operational transformation (Yin, 2018). This methodology is particularly apt as it allows for an intensive, holistic exploration of a contemporary phenomenon, digital transition, within its real-life context, where the boundaries between the phenomenon (digital innovation) and the context (the pawnshop organization) are not clearly evident. By focusing on Pegadaian Wonosari as a bounded system, the researcher can delve deeply into the intricate interplay of processes, perceptions, and social interactions that quantitative methods might overlook. The case study design facilitates the collection of multifaceted data through interviews, observations,

and documents; enabling the construction of a thick, descriptive narrative that captures the complexity and nuance of change. It prioritizes depth over breadth, aiming to uncover the how and why behind the observable patterns, such as the mechanisms through which a new app influences customer trust or how a digital workflow redefines an employee's role. This approach is fundamentally interpretive, seeking to understand the meanings that stakeholders themselves ascribe to the digital transformation, thereby generating insights that are grounded in the empirical reality of the case and that can inform both theory and practice for similar institutions navigating analogous challenges. This method is selected for its capacity to provide a rich, contextual, and in-depth understanding of complex, real-world phenomena within their natural setting, aligning with the study's interpretivist epistemological stance and its ontological view of reality as socially constructed through participant experiences. This systematic documentation of procedures is intended to allow other researchers to replicate or adapt the design in comparable trust-intensive financial service settings.

This research was conducted at the main and two branch offices of a publicly-owned pawnshop company (hereafter referred to as Pegadaian Wonosari) in the Gunungkidul Regency, Special Region of Yogyakarta Province, Indonesia. The case was selected through criterion-based purposive case selection (Yin, 2018), based on two explicit criteria; (1) Pegadaian Wonosari has actively launched several digital service initiatives (e.g., mobile appraisal, online collateral management), making it an information-rich case, and (2) the concentration of diverse customer demographics and centralized operational units allows for efficient, in-depth data collection. These criteria were established prior to fieldwork to ensure the case could adequately address the research questions concerning both customer experience and operational transformation. The fieldwork was carried out over a five-month period from January to May 2025, allowing for extended engagement and observation of digital service interactions.

2.1 Population, sample, and key informants

The study population encompasses all customers and employees of Pegadaian Wonosari. A purposive sampling technique was used to select key informants who could provide the most insightful data related to the research focus (Creswell & Poth, 2018). The final sample comprised 4 participants, divided into two groups. Customers ($n = 2$) selected based on their recent use of both traditional and digital pawnshop services (e.g., mobile app transactions, online inquiries). This group included a mix of long-term customers with more than three years of transaction history and newer customers who had primarily adopted digital channels, ensuring variation in digital exposure and trust orientation. Their ages ranged from 24 to 58 years, with occupations spanning informal sector workers, small business owners, and salaried employees, reflecting the typical demographic profile of the pawnshop's clientele.

Employees ($n = 2$) including frontline staff (counter services), digital platform administrators, and middle managers involved in digital strategy implementation. Participants varied in tenure, ranging from two to over fifteen years of service, which allowed the study to capture both established, tacit work practices and newer, digitally-oriented roles. This variation was intentional, as it enabled comparison between staff whose daily work was most directly affected by digitalization and those overseeing its strategic implementation. This study is based on a single-case, single-region design involving only one publicly-owned pawnshop in Gunungkidul Regency with 4 informants. Therefore, the findings cannot be generalized to the entire pawnshop industry. The insights generated are analytically rather than statistically generalizable, and their transferability to other pawnshop contexts, regions, or institutional types remains to be empirically tested.

2.2 Data collection and analysis

Data were collected through multiple sources to ensure triangulation and depth. Semi-

structured Interviews is primary data source. Conducted with all 2 participants using an interview guide focused on experiences, challenges, and perceptions of digital service integration. Interviews lasted 10 minutes, were audio-recorded with consent, and later transcribed verbatim. Document Analysis use internal documents (e.g., service manuals, digital initiative reports) and publicly available materials (e.g., annual reports, promotional content) were analyzed to contextualize and corroborate interview and observational data.

Data analysis followed the interactive model proposed by Miles et al. (2018), involving three concurrent flows of activity; data condensation, data display, and conclusion drawing/verification. Condensed data were organized into thematic matrices and narrative summaries. These displays allowed for within-case and cross-case analysis, identifying patterns and relationships between customer experience themes and operational transformation themes. Conclusion Drawing and Verification; Preliminary conclusions were continuously checked against the data. To ensure data credibility, several verification procedures were applied; member checking was performed by sharing summary findings with a subset of participants ($n = 4$, comprising four customers and two employees) for validation; peer debriefing was conducted with two fellow qualitative researchers not involved in the study to challenge emerging interpretations; and an audit trail documenting coding decisions, analytic memos, and revisions was maintained throughout the analysis. Furthermore, peer debriefing with fellow qualitative researchers was conducted to enhance the credibility and trustworthiness of the analysis.

3. Results and Discussion

This section presents the findings from the qualitative analysis, structured around the two core themes of customer experience and operational transformation. The analysis reveals that these themes are not isolated but are deeply interconnected, each influencing and being shaped by the other in the context of digital service innovation. The data shows that changes in operational processes, driven by new digital tools, have direct and sometimes unintended consequences on how customers perceive and interact with the service. Conversely, evolving customer expectations and behaviors in the digital era create new demands and pressures that necessitate internal operational adjustments. By examining these two themes in tandem, a comprehensive picture emerges of an organization in transition, navigating the complex interplay between internal efficiency goals and external relationship management. This integrated view reveals that the path of digital transformation is not linear or siloed but is instead a dynamic negotiation between competing priorities. Decisions made to streamline back-office operations, such as implementing a centralized digital ledger, directly influence the frontline employee's capacity to engage with customers, sometimes creating new points of friction or requiring new explanatory scripts (Buhalis & Sinarta, 2019).

Conversely, customer feedback and adoption patterns of new digital services generate crucial data that must loop back to inform and recalibrate internal training programs and system design. The organization is thus caught in a continuous feedback loop where operational changes reshape customer experiences, and evolving customer behaviors, in turn, demand further operational adjustments. This analysis moves beyond simply cataloging changes to illuminate the inherent tensions and trade-offs of modernization. It shows that successful adaptation is not about achieving perfection in either domain alone, but about cultivating an organizational agility that can consciously manage the ripple effects between the internal engine of operations and the external frontier of customer relations, ensuring that advancements in one area do not come at an unsustainable cost to the other (Prasetyo & Setyawan, 2020).

This integrated perspective allows for a richer understanding of the successes, challenges, and critical friction points that define the digital transformation journey at Pegadaian Wonosari, moving beyond a superficial account of technology adoption to uncover the substantive shifts in practice and perception occurring at both the frontline and the back office. It reveals that success is not merely measured by the deployment of a new

app or software but by how these tools recalibrate daily workflows, redefine roles, and reshape the subjective experience of both service providers and consumers. The analysis exposes critical friction points, such as the dissonance between a digitally-driven back-office process and a relationship-dependent frontline interaction, that act as primary obstacles to seamless transformation (Rahman & Sloan, 2017). By tracing the connections between operational upgrades and their lived consequences for staff and customers, the study illuminates the human and organizational dimensions of change that are often obscured in purely technical reports. This deeper narrative shows that the journey is one of cultural and procedural evolution, where technology acts as a catalyst, forcing a re-examination of entrenched practices and prompting a renegotiation of value creation between the institution and its clients. Therefore, the transformation at Pegadaian Wonosari is understood not as an Information Technology (IT) project, but as a complex organizational metamorphosis where new technologies are assimilated into, and, in turn, alter the social fabric and service ethos of the institution (Haryanto & Wiwoho, 2021).

The discussion interprets these findings by relating them back to the theoretical framework of Service-Dominant Logic (S-D Logic) and digital transformation, positioning them within the existing body of literature. This theoretical integration allows the empirical observations from Pegadaian Wonosari to transcend a simple case study and contribute to broader academic conversations. The workforce adaptation challenges are seen through the theory of digital transformation as a classic example of the social subsystem lagging behind changes in the technical subsystem. By positioning these findings within literature, we can see how they affirm, challenge, and extend prior work. For instance, they affirm studies on the importance of human interaction in financial services but challenge assumptions that digitization is a linear, universally positive progression. More significantly, they extend the literature by offering a concrete, context-specific model of digital augmentation that operationalizes these high-level theories for the unique, asset-based environment of pawnbroking. Beyond their implications for service innovation, these findings carry direct consequences for the resilience and sustainability of trust-based financial institutions. The persistence of the relational gap and workforce adaptation dissonance indicates that digital transformation, if pursued as a purely efficiency-driven agenda, may erode the very relational capital on which institutions such as pawnshops depend for long-term survival. The relational gap is evident in the repeated statements of customers who, despite acknowledging the convenience of digital channels, ultimately returned to face-to-face transactions for matters they considered sensitive or high-value. As two customer explained.

"I tried checking the estimate through the app, but once it's an heirloom item, I still have to come to the office. Because I need it explained directly, I need face-to-face. If it's through the app, I'm not sure the price is right and I can't negotiate." (Customer 01)

"The app is indeed fast, but for my gold that has a non-standard shape, I trust the staff's appraisal more. I'm afraid that if the app miscalculates, I'll be the one who loses out." (Customer 02)

Similarly, the workforce adaptation dissonance is directly voiced by employees who experienced role ambiguity and skill gaps following the introduction of digital systems. A frontline staff member stated.

"Previously, I only focused on appraising items and serving customers. Now I also have to be able to teach customers how to use the app, fix system errors, and sometimes I even become a place for confused customers to vent. My tasks have increased, but the formal training was only once at the beginning." (Employee 01)

Another employee described the informal nature of their learning process.

"I learned this new system from my colleagues, not from formal training. Sometimes I'm still confused, but I have to keep serving customers as usual. It feels like working twice." (Employee 02)

Conversely, a digitally-augmented service model that preserves human-centred trust-building constitutes a form of institutional resilience; an adaptive capacity to absorb technological shocks without sacrificing core value propositions. In this sense, sustainable financial service delivery in the pawnshop sector requires balancing short-term operational gains against the longer-term preservation of inclusive, trust-based access for underbanked communities, thereby contributing to the resilience of the broader microfinance ecosystem. This dialogue between data and theory transforms the findings from a descriptive account into an analytical contribution that clarifies the mechanisms through which digital innovation succeeds or stumbles in trust-intensive service ecosystems (Pagani & Pardo, 2017).

3.1 The duality of digital customer experience: Enhanced convenience and emergent trust barriers

The results reveal a dual-faceted impact of digital services on customer experience at Pegadaian Wonosari. On one facet, digital tools such as the mobile application for preliminary collateral valuation were reported to enhance perceived convenience, autonomy, and efficiency. Customers valued the ability to conduct initial assessments remotely, which reduced time, effort, and uncertainty before visiting the physical branch. This aspect aligns with broader trends in financial technology that prioritize accessibility and user empowerment. Conversely, the second facet reveals a contrasting layer where digital adoption introduces reported challenges related to trust-building and relational depth. For high-value items, complex transactions, or first-time customers, there remains a strong, persistent preference for direct, face-to-face interaction. Customers expressed concerns regarding the accuracy of automated appraisals for non-standard assets, data security within digital platforms, and a perceived lack of the empathetic negotiation and personalized assurance that characterize traditional pawnbroker interactions (Setiawan & Tarigan, 2021).

This duality creates what the study terms a relational gap in the digital customer journey, where transactional efficiency is achieved at the potential cost of the relational trust that has historically underpinned the pawnshop business model. Therefore, the impact is not uniformly positive but is instead characterized by a trade-off, suggesting that digital services are most effective for standardized, routine transactions, while the human element remains irreplaceable for building the confidence necessary for more sensitive or substantial engagements. This finding necessitates a strategic approach where digitalization complements rather than replaces the interpersonal foundations of the service. Primarily, digital tools like the mobile application for preliminary collateral valuation (digital appraisal) were consistently reported to enhance perceived convenience and autonomy. Customers appreciated the reduced time and effort required for initial transactions, as illustrated by one participant.

"I can check the estimated value of my gold from home... it saves me a trip if the estimate is too low." (Customer 07)

This aligns with S-D Logic's emphasis on value co-creation, where the digital platform acts as an operant resource, enabling customers to become active participants in the service process (Sebastian et al., 2020). However, this increased convenience coexists with reported emergent barriers related to trust and relational depth. For complex or high-value transactions, a strong preference for face-to-face interaction persisted. Customers expressed concerns about data security, the accuracy of digital appraisals for unique items, and a perceived lack of empathetic negotiation in digital channels. This finding nuances the

work of Ahmed & Saleh (2017), who highlighted digital convenience in financial services, by showing that in trust-intensive contexts like pawnbroking, digitization can create a relational gap. The data suggests that digital tools efficiently handle transactional, routine value but struggle to support the relational, assurance-based value crucial for core pawnshop services. Table 1 for a summary of customer segments and their digital service adoption patterns, which illustrates this duality). The analysis further indicates that customer adoption segments into distinct patterns, heavily influenced by the type of collateral and transaction history, as summarized in Table 1.

Table 1. Customer segments and digital service adoption patterns

Customer Segment	Primary Collateral Type	Level of Digital Channel Use	Key Driver or Barrier
Tech-Embracing Pragmatists	Standardized (e.g., gold bullion)	High for inquiry & renewal	(Driver) Convenience, speed, transactional efficiency.
Relational Skeptics	Unique/High-value (e.g., heirlooms)	Low; used for initial information only	(Barrier) Need for trust and expert face-to-face consultation.
Hybrid Users	Mixed	Medium for specific steps	(Driver) Flexibility. (Barrier) Preference for finalization and negotiation in person.

3.2 Operational transformation: Streamlined processes and workforce adaptation challenges

On the operational front, the integration of digital platforms has initiated a reported transformation, characterized by increased back-office efficiency but also new skill demands and workflow dissonance. The implementation of a centralized digital collateral management system has reduced manual record-keeping errors and accelerated audit processes. Manager 01 noted,

"The time for monthly reporting has been cut almost by half." (Manager 01)

This operational efficiency gain can be conceptually linked to the reduction in procedural friction, supporting Fowler et al.'s (2018a) assertion on technology-driven process optimization (Pegadaian, 2023). Nevertheless, this transformation is not frictionless. The data uncovers a critical challenge in workforce adaptation. The integration of digital platforms has fundamentally altered the required skill set for frontline employees at Pegadaian Wonosari. Staff are now expected to master a dual role; maintaining their traditional expertise in asset appraisal, customer relations, and regulatory compliance, while simultaneously developing digital literacy to operate new systems, troubleshoot technical issues for customers, and guide them through online processes (Susanto & Chang, 2020). This shift has created a tangible performance gap and a sense of role ambiguity among some employees. The research indicates that this adaptation challenge manifests as increased time spent on training, initial resistance to changing established workflows, and varying levels of proficiency with the new technology across the team. This friction points to a broader organizational hurdle in digital transformation, where technological investment must be matched by a commensurate investment in human capital development. Without targeted upskilling programs, clear communication of new role expectations, and change management support, the full benefits of digital operational tools cannot be realized, and employee morale and effectiveness may be compromised. Therefore, the path to seamless digital transformation is contingent upon viewing technology implementation and workforce development as two inextricably linked components of the same strategic initiative (McKinsey & Company, 2020).

The new system requires frontline staff to master dual roles; traditional pawnbroking expertise and digital literacy for customer guidance. This evolution demands that employees not only possess the foundational skills of asset valuation, risk assessment, and empathetic customer service but also become proficient navigators and interpreters of the

digital interface. They must seamlessly transition from explaining the intricacies of a gold purity test to assisting a customer with a mobile app error or clarifying the steps of an online repayment process. This duality creates a reported cognitive and operational load, as the staff's role expands from being a subject-matter expert to also becoming a tech-support intermediary. The challenge lies in integrating these two knowledge domains into a cohesive service delivery model where digital tools are presented not as a separate, confusing layer, but as a natural and helpful extension of the traditional service. Success in this area is crucial, as the staff's competence and confidence in using the digital system directly influence customer trust in the technology itself. If employees appear hesitant or poorly trained, it reinforces customer skepticism, thereby widening the relational gap instead of bridging it. Consequently, effective training must go beyond mere software tutorial; it needs to cultivate a hybrid skill set that empowers staff to leverage digital tools to enhance, rather than hinder, the core relational and expert-based value proposition of the pawnshop (Indonesia Fintech Report, 2022).

The observed relationship between system complexity, existing staff expertise, and the required investment in training can be summarized heuristically as follows denotes the relative need for training hours, the complexity of the new digital system, and the existing level of staff expertise. This expression should be understood strictly as an illustrative heuristic or conceptual shorthand, rather than a quantified relationship; it is not derived from any measurement data and is not intended to be operationalized statistically. It serves only to express the intuitive proposition that, as system complexity rises relative to existing staff expertise, the relative demand for training and adaptation support increases proportionally. This finding extends the discussion on digital transformation beyond technology, highlighting the human resource dimension as a critical success factor, a point less emphasized in earlier studies focused on pawnshops (Julio, 2018).

3.3 Synthesizing experience and transformation: Towards an integrated service ecosystem

The discussion synthesizes the two thematic strands to propose that the ultimate success of pawnshop digital innovation hinges on integrating customer experience and operational transformation into a coherent service ecosystem. The results show that operational gains (e.g., faster processing) do not automatically translate into superior customer value if the relational gap persists. This supports and refines the state of the art presented by Gretz et al. (2017); successful innovation requires a design that aligns internal efficiency metrics with external value perceptions.

Compared to previous studies in traditional banking, the pawnshop context reveals a heightened sensitivity to the human-interactive element. This distinction arises from the fundamental nature of the pawnbroking transaction, which is intrinsically more personal, trust-intensive, and emotionally charged than many standard banking services. While digital banking often focuses on routine transactions like fund transfers or balance inquiries, a pawnshop transaction involves the temporary surrender of personal valuables, often with sentimental worth, as collateral for a loan. This act requires a profound level of trust in the institution's fairness, expertise, and discretion. Therefore, the digital interface in this sector does not merely process information; it must also mediate a delicate relationship built on appraisal integrity, negotiation, and assurance. The findings from Pegadaian Wonosari demonstrate that where banking digitization might successfully automate for efficiency, pawnshop digitization must augment for empathy and trust (Wirtz et al., 2020).

The relational gap identified is more acute here because the service core is not purely financial but also deeply custodial and advisory. This heightened sensitivity necessitates that digital innovation in pawnbroking be designed with a primary focus on supporting and enriching the human interaction, rather than aiming to fully replace it. It underscores that the metric of success extends beyond transactional speed to include the preservation of perceived fairness, expert judgment, and personal connection throughout the customer journey. Therefore, the proposed model is not a full replacement but a digitally-augmented

service model, where technology streamlines operational flow while human expertise deepens relational trust. This positions the present research as contributing a nuanced framework for hybrid value co-creation in trust-based, asset-lending financial institutions, addressing the gap identified by Dexler (2016) regarding the micro-level impacts of digital transition (Verhoef et al., 2021).

While prior research often examined digital transformation at a macro or strategic level, this study delves into the granular, experiential realities of both customers and employees as they navigate the change. The proposed framework moves beyond a binary view of traditional versus digital by illustrating how value is co-created in a hybrid ecosystem. It posits that the optimal model is not a full migration online, but a synergistic integration where digital tools handle transactional efficiency and accessibility, while human expertise concentrates on building trust, providing complex judgment, and delivering empathetic service for sensitive interactions (Hanson et al., 2015). This addresses Dexler's call for a deeper understanding of micro-level impacts by explicitly mapping how digital transitions reshape daily routines, skill requirements, customer perceptions, and ultimately, the very nature of the service encounter in a pawnshop. The framework emphasizes that the success of the digital transition is contingent on this careful balance, making a specific contribution to the literature on fintech and financial inclusion by providing a roadmap for institutions whose core business is inherently relational and asset-based, ensuring that technological advancement strengthens rather than undermines their foundational value proposition.

4. Conclusions

This study concludes that digital innovation in traditional pawnshops is not a monolithic process of technological adoption but a complex, dual-track transformation that necessitates a balance between operational efficiency and relational value co-creation. These findings were synthesized from interviews with 4 informants, approximately 15 hours of non-participant observation, and analysis of internal documents at Pegadaian Wonosari. The main findings of this study indicate that while digital tools were reported to enhance transactional convenience and streamline back-office processes, as expressed by customers who valued the ability to check estimated values from home, and by managers who noted that monthly reporting time had been cut by nearly half, these tools simultaneously introduced new challenges in trust-building and personal interaction. These challenges emerged directly from customers' statements expressing a continued preference for face-to-face transactions for high-value or heirloom items, as well as from frontline staff who reported role ambiguity and additional workload demands in mastering digital systems without adequate formal training.

The primary theoretical contribution of this research is the articulation and empirical support for a digitally-augmented service model in the pawnshop context. This model refines the application of Service-Dominant Logic in the digital era by demonstrating, based on the collected data, that technology functions most effectively when positioned as an operant resource that augments, rather than replaces, human-centric relational value. The study's original finding lies in identifying the persistent relational gap in the digital customer journey and the consequential workforce adaptation dissonance in operations, both of which are supported by direct quotations from customers, employees, and managers. These findings highlight that the human element remains the critical linchpin for successful integration. Consequently, the study contributes to the broader discourse on digital business transformation by offering a framework specific to asset-based lending institutions, emphasizing that the measure of innovation success, as observed in this case, is the alignment between optimized internal workflows and preserved trust-based customer experiences. This insight provides both scholarly value in advancing context-specific theory and practical guidance for pawnshop managers navigating the digital transition.

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Author Contribution

The author contributed to all aspects of the study, including conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing, original draft preparation, writing, review and editing, visualization, supervision, project administration, and funding acquisition.

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Ethical Review Board Statement

Ethical approval for this study was waived by Pegadaian Wonosari because it used fully anonymized secondary data.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

The qualitative data supporting the findings of this study, including anonymized interview transcripts and observation notes, are not publicly available due to the privacy and confidentiality agreements made with the research participants (Pegadaian Wonosari and its customers). Aggregate and thematic data that do not compromise participant anonymity are available from the corresponding author upon reasonable request. Requests for access to non-identifiable data can be directed to ekapuji482@gmail.com

Conflicts of Interest

The authors declare no conflicts of interest. The funding sponsors, if any, had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Declaration of Generative AI Use

During the preparation of this work, the authors used Grammarly to assist in improving grammar, clarity, and academic tone of the manuscript. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the content of the publication

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