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EVALUATING THE K-CASH PILOT TRIAL IN MUTUAL FUND TRANSACTIONS: A USER-CENTRIC PERSPECTIVE

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Abstract

This study examines the initial institutional user acceptance of the K-CASH (KSEI Cash Management System) during its pilot testing phase in mutual fund transactions. The initiative to develop K-CASH stems from the growing need to digitalize fund settlement processes that traditionally rely on virtual accounts, manual proof-of-transfer verification, and reconciliation procedures conducted by Custodian Banks, mechanisms that are susceptible to mismatches and may prolong the settlement cycle. The system, which is built upon the Investor Fund Unit Account (IFUA) structure, introduces real-time balance validation, automated fund locking, unit validation, and integrated settlement instructions through S-INVEST. Employing a qualitative case study approach, this research adopts the UTAUT framework, comprising performance expectancy, effort expectancy, social influence, and facilitating conditions, and the interview findings suggest the presence of behavioral intention among users. Data collection involved semi-structured interviews with five institutional users at PT X, complemented by pilot testing documentation. The findings indicate that users perceive K-CASH as a system with substantial potential to enhance operational efficiency by reducing reconciliation workloads and minimizing mismatches, despite the presence of several technical issues such as reporting filter errors. The system is generally considered user-friendly, supported by effective internal coordination and managerial endorsement. Regulatory influence was also identified as a critical driver of participation, positioning PT X as an early institutional adopter. Nonetheless, the study identifies significant external gaps, including limited industry participation, dependence on cross-institutional integration readiness, and the need for clearer regulatory mandates and transition guidelines. These factors suggest that the full-scale implementation of K-CASH will require not only internal institutional preparedness but also decisive regulatory support and broader industry alignment. Furthermore, interview results reveal the emergence of behavioral intention among users to adopt K-CASH once system stability and regulatory clarity are achieved. This study contributes to the literature on technology adoption in capital market infrastructures and provides practical implications for refining the full implementation strategy of K-CASH.

Keywords: K-CASH, Digitalization, Capital Market, Mutual Funds, Pilot Testing

INTRODUCTION

The rapid advancement of information technology has accelerated digital transformation across various sectors, including the capital market industry. In recent years, digitalization has become a strategic priority for regulators and industry players to enhance operational efficiency, expand investor inclusion, and strengthen transaction transparency and accountability (KSEI, 2024a; OJK, 2024). The Financial Services Authority (OJK), through policies such as POJK No. 3/POJK.04/2021, has mandated the adoption of electronic systems in capital market operations as part of broader structural reform and financial infrastructure modernization efforts (OJK, 2021).

Among capital market instruments, mutual funds have experienced the highest growth in investor participation (Figure 1.1). Mutual funds pool public funds to be managed by Investment Managers (MI) into diversified portfolios consisting of equities, bonds, and money market instruments (IDX, 2024). The mutual fund transaction ecosystem involves multiple stakeholders, including Investment Managers, Custodian Banks, Mutual Fund Selling Agents (APERD), and OJK as the regulator. On the infrastructure side, PT Kustodian Sentral Efek Indonesia (KSEI) operates S-INVEST, an integrated system for transaction processing and reporting (KSEI, 2024b).

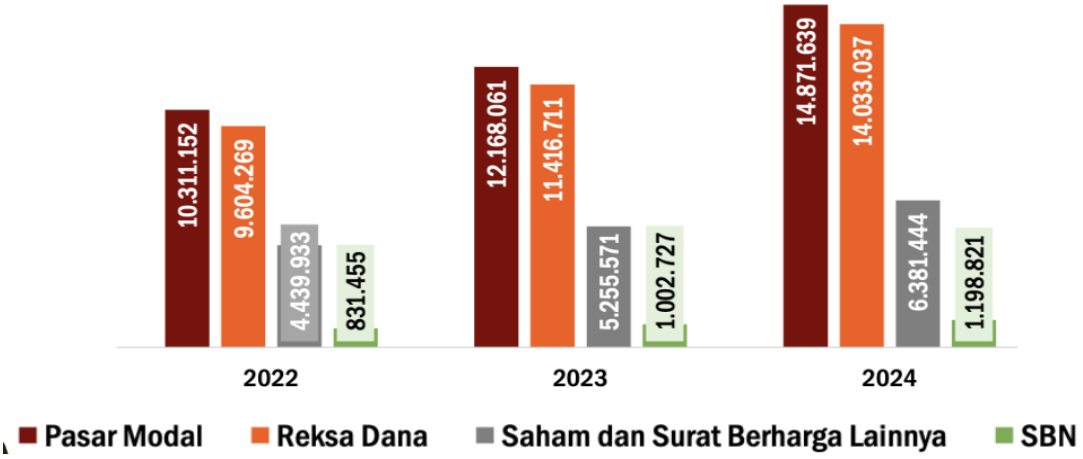

Figure 1
Investor Growth Trends in the Indonesian Capital Market

Although S-INVEST has streamlined operational workflows and record-keeping, the cash settlement process remains dependent on virtual accounts and Custodian Bank accounts. These mechanisms are not fully efficient in supporting integrated and real-time payments, and they remain vulnerable to reconciliation errors and settlement delays (Antaranews, 2024; Liputan6, 2024; KSEI, 2024d). To address these issues, KSEI developed the Cash Management System (K-CASH), an IFUA-based (Investor Fund Unit Account) feature integrated with Bank Indonesia's BI-FAST payment system (KSEI, 2024e; 2024f). Formerly used only to record unit holdings, IFUA has now been expanded into an investor-owned account capable of storing cash in accordance with POJK No. 4/2023. Consequently, IFUA enables the recording of cash balances that may be used directly for subscription transactions or to receive redemption proceeds, offering lower transfer fees and alternative payment methods for investors.

As part of the system development, KSEI established the K-CASH Working Group (WG), comprising stakeholders willing to participate in the pilot project conducted in mid-2024. The pilot involved two fintech-based Selling Agents (PT Inovasi Finansial Teknologi and PT Sayakaya Lahir Batin) and seven Custodian Banks (PT Bank Central Asia Tbk, PT CIMB Niaga Tbk, Standard Chartered Bank, PT Bank Danamon Tbk, PT Bank HSBC Indonesia, Citibank N.A., and Deutsche Bank AG). KSEI officially announced the go-live of K-CASH in December 2024 through Press Release PR-009/KSEI/SKE/1224. The pilot testing focused exclusively on redemption and subscription transactions using dummy data, meaning no actual investor funds were utilized.

Despite being a strategic initiative, industry participation during pilot testing remained limited. Out of 98 registered Selling Agents, only two joined the Working Group. Similarly, only seven of the 28 Custodian Banks participated (Figure 1.2). This composition indicates that only a small subset of industry players possessed the technological readiness, operational capacity, and organizational commitment required for early involvement in testing a non-mandatory system.

Within this context, PT X holds a strategic position as an early institutional adopter—one of the few institutions with adequate technical capabilities and infrastructure, as well as a proactive orientation toward supporting regulator-led digitalization initiatives. PT X's voluntary participation was driven by multiple strategic considerations, including the need to test internal infrastructure readiness, endorse the modernization of transaction processes, and strengthen its reputation as an adaptive and technologically progressive financial institution (PT X, 2025).

However, this early involvement also introduced several challenges. First, from a technological perspective, integrating the entity's internal core systems with K-CASH required additional development, budgeting, and adaptation time. Second, from a human resource standpoint, the organization needed training, SOP adjustments, and cross-departmental coordination to ensure effective system utilization. Third, regulatory uncertainty—particularly the absence of a clear roadmap and clarity on whether K-CASH would become mandatory—led many stakeholders to delay full adoption. These challenges indicate that the core issue lies not in the technological functionality itself, but in the readiness and early acceptance of institutional users toward a system that remains optional.

By mid-2024, KSEI had conducted K-CASH testing with seven Custodian Banks and two fintech-based Selling Agents (KSEI, 2024b). Although the system was declared "go-live" in December 2024, adoption was uneven due to technical readiness, cross-unit coordination demands, system adjustment requirements, and the absence of investor-driven demand. Many participants, including PT X, remained in the technical simulation stage, with no real investor transactions recorded through K-CASH as of mid-2025 (PT X, 2025). Without regulatory incentives or investor pressure, K-CASH is perceived as a long-term strategic agenda rather than an urgent operational priority.

This situation demonstrates that system adoption is still confined to internal testing and has not reached end users. Consequently, PT X's focus has been primarily on evaluating system readiness, cross-departmental coordination, and early-stage user acceptance. This phenomenon is critical to investigate, as it highlights the gap between technology readiness and organizational readiness in the digitalization of capital markets. It raises fundamental questions about how institutional users perceive and interpret this new system—as a strategic

necessity or merely symbolic participation in a regulator-driven project. The pilot phase thus represents an essential moment to understand how user perceptions are formed, including whether the system is seen as easy to use (effort expectancy), capable of improving work efficiency (performance expectancy), supported by organizational infrastructure (facilitating conditions), and influenced by regulatory expectations (social influence).

Previous studies have examined digital technology adoption in well-established systems such as XBRL (Wahyudi & Anggraini, 2025), e-IPO, and digital investment applications, employing the UTAUT framework to analyze determinants such as performance expectancy, effort expectancy, social influence, and facilitating conditions (Prasarry et al., 2023; Setiawan & Oktavia, 2024a). In digital payment contexts, studies such as UTAUT Determinants of Cashless Payment System (Namahoot & Boonchieng, 2023) and Applying the UTAUT Model to Understand M-Payments Adoption in Fiji (Chand & Kumar, 2024) show that UTAUT variables are effective predictors of user intention. However, research evaluating user perceptions of systems that remain in a pilot and optional phase—such as K-CASH—is still limited. Therefore, this study aims to evaluate the initial acceptance of institutional users toward K-CASH using the Unified Theory of Acceptance and Use of Technology (UTAUT).

Accordingly, this study focuses on assessing the early acceptance of institutional users participating in PT X's pilot testing of K-CASH, using the UTAUT framework to identify factors influencing the acceptance of a system that has not yet been fully implemented.

RESEARCH METHOD

Research Design

This study adopts a qualitative descriptive case study design, which enables an in-depth exploration of a complex and ongoing phenomenon within its real-world institutional context. A case study approach is appropriate for examining the early-stage pilot testing of the K-CASH system, where organizational responses, decision flows, and user interpretations are integral to understanding system adoption dynamics (Ellet, 2018).

The focus of this research is to assess how institutional users—specifically one Custodian Bank participating in the Working Group—perceive the initial implementation of K-CASH during the simulation phase using dummy data. A descriptive qualitative approach is used to capture the perceived benefits, challenges, and readiness surrounding the system's early adoption.

The analytical lens of the study is guided by the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), using four core constructs:

1. Performance Expectancy,
2. Effort Expectancy,
3. Social Influence, and
4. Facilitating Conditions.

Although UTAUT typically includes *behavioral intention* and *use behavior*, these variables are not explicitly captured through direct questions, considering that K-CASH was still in the pilot testing stage and no real investor transactions had occurred. Nevertheless, the

analysis remains open to identifying emerging indications of behavioral intentions during the interviews.

Data Collection Methods

Primary data were collected through semi-structured interviews with institutional users involved in the pilot testing of K-CASH. Five respondents were selected using purposive sampling to represent different functional levels within the organization, enabling the study to capture both strategic perspectives and operational execution issues.

Table 1.
Interview Respondents

Position	Number of Respondents
Vice President (VP)	1
Assistant Vice President (AVP)	1
Manager	1
Officer	2

This sampling strategy aligns with the concept of information power, where a focused research aim, theoretical framing (UTAUT), and a homogeneous institutional context justify a smaller sample size (Malterud et al., 2016).

Interviews followed an open-ended format based on the UTAUT constructs, with additional consideration of the Software Testing Life Cycle (STLC) to capture issues specific to system pilot testing. All interviews were audio-recorded with consent, transcribed within 72 hours, and anonymized using role-based codes (e.g., “AVP”).

An interview guide was developed by adapting UTAUT indicators into context-specific questions. Table 2 summarizes the adaptation logic used.

Table 2.
Adaptation of UTAUT Indicators into Interview Questions

UTAUT Variable	Original Indicators	Adaptation Focus
Performance Expectancy	Speed, productivity	Perceived efficiency, reconciliation speed, process optimization during pilot testing
Effort Expectancy	Ease of use, learnability	Learning curve, clarity of guidance, error frequency, test case execution
Social Influence	Management and organizational support	Role of internal leadership, influence of KSEI as regulator/developer, project prioritization
Facilitating Conditions	Resources, technical support	Infrastructure readiness, internal–external coordination, issue resolution mechanisms

The full list of interview questions is provided in Appendix A.

Secondary data were obtained from testing documentation, including system logs, test results, and technical reports generated during the K-CASH pilot simulation. These documents contain execution outcomes, error logs, SLA performance data, and records of integration issues.

Documentation served two analytical purposes:

1. Verifying and complementing interview findings through source triangulation, and
2. Providing objective evidence regarding system performance, error frequency, and areas requiring further refinement.

This combination of interviews and documentation strengthens the credibility and robustness of the findings.

Data Analysis

Data analysis began with repeated reading of interview transcripts, memoing, and identification of meaningful segments. A thematic coding approach was implemented, guided by both deductive codes (UTAUT variables) and inductive open coding to capture emergent themes beyond the theoretical framework (Gale et al., 2013).

Primary thematic categories included:

- Performance Expectancy (PE)
- Effort Expectancy (EE)
- Social Influence (SI)
- Facilitating Conditions (FC)

Open coding allowed the identification of additional themes—such as audit trail issues or integration concerns—which were later aligned with the most relevant UTAUT construct. This structured reduction facilitated coherent interpretation and alignment between user experiences and theoretical determinants of technology acceptance.

Triangulation was conducted by comparing interview narratives with documentation evidence and official KSEI materials (press releases, technical guidelines, and communication notices). This approach ensured cross-validation of data, strengthened analytical rigor, and highlighted any discrepancies between perceived and documented system behavior (Donkoh, 2023).

Triangulation also allowed the study to distinguish between:

- perceived challenges (from interviews), and
- observed system performance patterns (from technical logs).

This integrative process contributed to a comprehensive understanding of institutional acceptance during the early adoption of K-CASH.

RESULTS AND DISCUSSION

Analysis of UTAUT Variables in the Pilot Testing of K-CASH for Mutual Fund Transactions from the User Perspective

Performance Expectancy (PE)

The findings indicate a consistently positive assessment of performance expectancy among institutional users during the early pilot testing of the K-CASH system. Users across operational and managerial levels perceived that K-CASH has strong potential to enhance the efficiency, accuracy, and reliability of mutual fund settlement processes. Although the system had not yet been used by real investors or Selling Agents (SA), the simulation using dummy data was considered sufficiently representative of actual operational conditions.

From the operational level, officers emphasized that K-CASH accurately mirrored the existing workflow and addressed key pain points in the reconciliation process. Users highlighted that the system's logical flow, automated validation features, and integrated

transaction summary significantly reduced the manual workload traditionally associated with subscription and redemption activities. The availability of a transaction summary dashboard, improved interface design, and clearer data visualization further reinforced perceptions of enhanced process efficiency.

In particular, users reported that reconciliation activities—which previously required cross-checking between virtual accounts, proof of transfer, and manual matching—could be completed more seamlessly under K-CASH. This aligns with the performance expectancy component of UTAUT, in which perceived improvements in job performance increase users' acceptance of new technologies.

Managerial-level participants echoed this positive view. The AVP emphasized that the pilot testing generated a realistic preview of potential production performance and confirmed the system's operational readiness. Effective coordination with KSEI, including responsiveness to feedback and rapid correction of interface-related errors (e.g., the report filtering issue), further strengthened confidence in system reliability. Triangulation with pilot testing documentation validated users' statements, particularly regarding defect identification and resolution, underscoring the system's alignment with the Test Execution and Defect Tracking phase of the Software Testing Life Cycle (STLC).

At the strategic level, the VP highlighted the system's value proposition in simplifying business processes and reducing operational complexity. Participation in the pilot testing also provided institutional learning benefits, offering insights into how other custodian banks and SA participants were adapting to the system. This suggests that performance expectancy extended beyond internal operational gains to include broader institutional advantages such as cross-institutional awareness and improved alignment with industry practices.

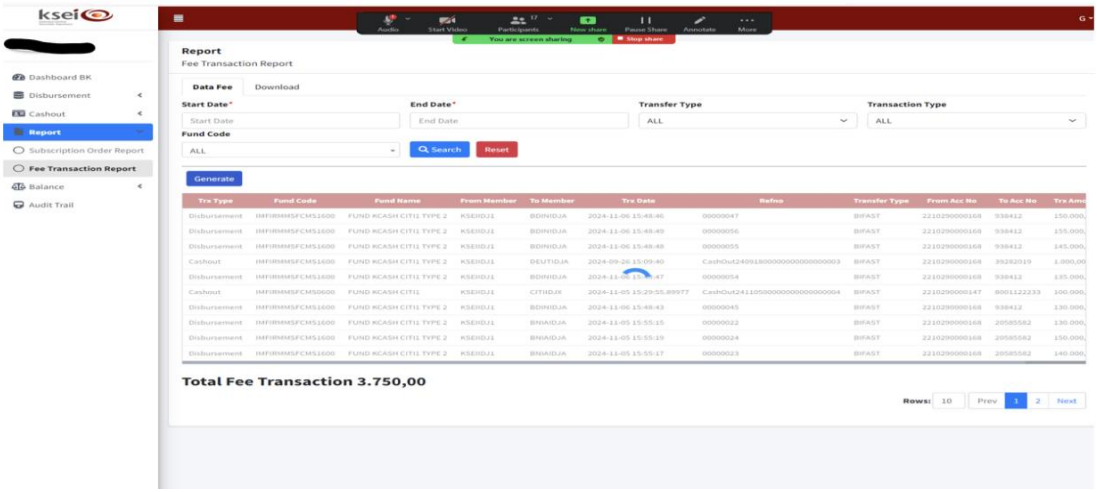

Figure2
Error Filter Report Menu
(Source: Dokumentation at PT X)

Collectively, the findings illustrate that institutional users perceive K-CASH as a system capable of delivering clear performance benefits. Despite minor technical issues identified during testing, user confidence remained high due to the system's ability to replicate real operational workflows, reduce manual reconciliation burdens, and enhance

transaction transparency. This strong perception of performance expectancy provides an important foundation for potential adoption once the system becomes fully stable and supported by industry-wide regulatory clarity.

Social Influence (SI)

The results reveal that social influence played a decisive role in shaping institutional users' participation and commitment during the pilot testing of K-CASH. Support from top management emerged as a central driver that strengthened users' confidence and legitimized the project at the organizational level. Evidence from managerial participants shows that the project received explicit endorsement from senior leadership, who consistently positioned K-CASH as a strategic regulatory initiative aligned with the institution's long-term digital transformation agenda.

At the managerial level, the assignment of the AVP as project lead symbolized a strong degree of organizational trust in both his technical competence and leadership capacity. This formal delegation of authority ensured organizational clarity, enabled efficient cross-department coordination, and fostered a strong sense of shared responsibility among technical and operational teams. Such structured managerial involvement reflects a high-intensity form of social influence, in line with the UTAUT construct, where user intentions are shaped by their perception of expectations from influential actors within the organization.

Further, the active involvement of the VP throughout the testing phase served as a strong internal signal of the project's strategic importance. The VP's direct participation in discussions, decision-making, and resource allocation facilitated cohesive alignment across Operations, Technology, and Business units. This collective alignment enhanced users' willingness to adopt the system during the testing phase and reinforced the perception that K-CASH was a high-priority initiative with institutional backing. The presence of leadership participation also strengthened users' belief that the project would contribute to operational improvements and help solidify the institution's position as a responsive and technologically adaptive custodian bank.

From an organizational reputation perspective, top management perceived participation in K-CASH as an opportunity to enhance the institution's standing with the regulator. The VP emphasized that involvement in this pilot testing contributed positively to the company's visibility and credibility, given that only a limited number of market institutions participated in the project. This reputational value amplified the perceived importance of the initiative, forging additional social pressure for the project team to deliver successful outcomes.

Viewed through the lens of the Software Testing Life Cycle (STLC), the strong managerial support aligns with the Requirement Analysis and Test Planning phase, where leadership decisions regarding resource allocation, prioritization, and interdepartmental coordination directly determine the feasibility and effectiveness of the testing execution. The clear direction provided by top management ensured that teams had the necessary authorization, time, and technical resources to perform the test scenarios comprehensively.

Overall, the findings demonstrate that social influence within PT X was not merely symbolic but functioned as a substantive enabler of pilot testing success. Social pressure was expressed through strategic directives, active management involvement, and the expectation of institutional excellence in the eyes of regulators. As a result, organizational participants perceived participation in K-CASH not only as a compliance-related obligation but also as

an opportunity to reinforce institutional leadership in supporting the modernization of Indonesia's capital market infrastructure.

Effort Expectancy (EE)

The analysis shows that effort expectancy—users' perceptions of the ease associated with learning and using the system—was generally high during the pilot testing phase of K-CASH. Respondents consistently emphasized that the clarity of testing scenarios, the comprehensiveness of the documentation provided by KSEI, and the structured presentation of dummy data contributed significantly to the perceived ease of use. These findings confirm that K-CASH was not only technically accessible but also supported by adequate instructional material that reduced the cognitive and procedural load on users.

Managerial respondents highlighted that the test scenarios were clearly written and free of ambiguity, enabling smooth execution of each test case. However, the tight testing timeline and intermittent system instability introduced moderate challenges. Users reported encountering several system errors, including temporary hangs and data inaccessibility, which required additional time for troubleshooting. These limitations suggest that while the system itself was easy to understand, the broader testing environment occasionally constrained the practical ease of use.

At the planning and execution level, the AVP noted that the pilot testing framework was easy to comprehend because KSEI supplied well-structured data and a complete set of predefined test cases. The use of dummy data with production-like structure facilitated user familiarity and minimized learning barriers. Nevertheless, additional effort was required from the custodian bank to generate internal dummy data for integration with the internal UAT system. This indicates that effort expectancy remained high but was accompanied by operational overhead related to internal data configuration.

The VP reaffirmed that the implementation process was manageable due to strong organizational preparedness and clear internal process design. Even though some elements were still under discussion, the existence of a preliminary internal blueprint enabled the testing team to anticipate system behavior and adapt more efficiently. This reflects that effort expectancy was influenced not only by system-level clarity but also by organizational readiness and internal coordination mechanisms.

Operational staff further supported these findings, indicating that KSEI's pilot testing guide and point-to-point test case structure allowed them to perform testing steps without difficulty. However, practical execution challenges arose because testing had to be conducted outside regular working hours due to limited availability of external partners, particularly Selling Agents (SA), who did not yet participate in the program. This reduced the completeness of the testing ecosystem and limited users' ability to observe real transaction flows.

OFC-1 also emphasized that system stability played a critical role in the perception of ease of use. Testing proceeded smoothly when the UAT environment was stable, but disruptions such as system hangs hindered workflow continuity. The introduction of the new Disbursement Report feature provided added value by presenting redemption payment data at the fund level. However, it also required additional internal testing to ensure compatibility with the company's internal reporting framework, indicating that new functionalities, although beneficial, contributed to incremental testing effort.

Triangulation of interview data with testing documents—specifically the official test cases and system guidance provided by KSEI—confirmed that the system had been designed with clear and structured instructions. All primary test scenarios were executed according to the prescribed steps, producing consistent and error-free logical outcomes. This alignment between user perceptions and documented procedures reinforces the conclusion that the system's perceived ease of use was grounded in systematically prepared guidance rather than subjective evaluation alone.

From the perspective of the Software Testing Life Cycle (STLC), these findings correspond to the Test Planning and Test Preparation stage. The adequacy of instructions, clarity of test cases, and availability of structured data serve as essential enablers of testing efficiency. Conversely, time constraints, system instability, and limited ecosystem participation represent external factors that shape user perceptions of effort beyond the system's inherent usability.

Overall, the results indicate that K-CASH demonstrates a high degree of effort expectancy, driven primarily by its intuitive design, detailed documentation, and strong institutional preparation. Nevertheless, external constraints such as incomplete industry participation and technical instability remain important considerations for the system's readiness for full-scale implementation.

Facilitating Condition (FC)

The analysis shows that facilitating conditions play a central role in shaping user readiness and the institutional capacity of PT X during the K-CASH pilot implementation. Consistent feedback across managerial and operational levels indicates that the organization had established adequate infrastructure, functional coordination, and technical support prior to system testing. These conditions created an enabling environment that aligns with the UTAUT construct of facilitating conditions, which emphasizes the importance of organizational and technical resources in supporting technology adoption.

Interviews with managerial respondents highlight that internal readiness had been secured even without a project-specific budget allocation. The VP explained that both the technology and operations teams were fully prepared and able to manage the pilot within existing resources. This insight reflects a proactive organizational approach, where internal guidelines and process designs were developed in parallel with the ongoing discussions and enhancements with KSEI. Such preparation minimized operational ambiguity and prevented the team from losing direction during the initial implementation phase. In the context of the Software Testing Life Cycle (STLC), these practices are indicative of an effective Test Environment Setup, where system access, infrastructure readiness, and organizational policies must be established before formal testing can proceed.

External coordination with KSEI further supported the testing process, as interviewees described communication as generally responsive and structured through guidance documents, email correspondence, and scheduled virtual meetings. Although the response time from KSEI was occasionally slower than the internal IT team, the availability of support channels ensured that system bugs and technical cases could be escalated and addressed throughout the pilot. A notable constraint emerged from the policy limiting each institution to a single user ID. This restriction reduced opportunities for hands-on experience among broader team members, forcing the AVP to lead combined sessions through shared

screens. Nevertheless, the constraint did not significantly disrupt the functional workflow, suggesting that strong internal coordination compensated for the system-access limitation.

At the operational level, officers reported that the tools, access, and internal technical support provided during the pilot were sufficient. Issues such as system hangs or debugging requirements were quickly resolved by the IT department, reinforcing user confidence in system stability. Interestingly, the institution relied heavily on self-directed learning rather than formal training. Respondents explained that they utilized previous project documentation, KSEI guidance materials, and internal reports to familiarize themselves with the system. This demonstrates a strong internal learning culture and adaptability, both of which are essential components of facilitating conditions in organizational settings. Nonetheless, several users emphasized the need for formal training from KSEI before the system is fully implemented, indicating that current support structures, while functional for the pilot phase, may not be adequate for long-term operational integration.

Triangulation across hierarchical levels, combined with communication logs between PT X and KSEI, confirms a high degree of consistency in the perception of readiness. Although formal documents such as IT readiness checklists were not available, the converging evidence suggests that internal and external support mechanisms were systematically established and effectively utilized throughout the pilot. This coherence strengthens the validity of the finding that facilitating conditions significantly contributed to the successful execution of the K-CASH pilot.

Overall, the analysis demonstrates that the facilitating conditions within PT X—comprising internal infrastructure readiness, coordinated communication, responsive technical support, and adaptive learning practices—played a decisive role in enabling users to carry out the pilot effectively. These findings affirm the UTAUT proposition that favorable facilitating conditions not only enhance system usability but also shape users' willingness to adopt the technology in future operational settings. However, the identified limitations, particularly in system access and the absence of formal training, indicate areas that require further enhancement to ensure a smooth transition from pilot testing to full-scale implementation.

Behavioral Intention and Additional Findings

The findings reveal that beyond the four primary UTAUT constructs, several contextual factors significantly shape the sustainability of K-CASH implementation. These factors—organizational commitment, external system constraints, and broader ecosystem readiness—provide a comprehensive perspective on behavioral intention at both individual and institutional levels. Their presence indicates that the adoption of K-CASH cannot be fully explained by UTAUT variables alone, but requires an expanded analytical lens that captures the regulatory and infrastructural dynamics of Indonesia's capital market.

From the organizational perspective, PT X demonstrated a strong intention to adopt and support the K-CASH system, despite the initiative not being mandatory. The VP emphasized that the company's decision to join the pilot project was driven by a strategic assessment of the long-term benefits, particularly in relation to operational efficiency and institutional reputation. This voluntary participation underscores an intrinsic behavioral intention at the organizational level, where commitment extends beyond regulatory compliance and aligns with anticipated market developments. The VP further stated that the

company had fulfilled its internal commitments by ensuring system readiness, even though widespread actual usage had not yet materialized. This suggests a forward-looking orientation in which the pilot project functions not merely as a technical exercise, but as preparation for an eventual transition toward digitalized fund transaction processes.

These insights resonate with Oh et al. (2024), who argue that pilot implementations in digital financial systems serve as strategic mechanisms to assess technological robustness, process reliability, and organizational preparedness prior to full-scale adoption. In the case of K-CASH, the pilot environment allowed PT X to validate its internal systems while positioning itself ahead of regulatory shifts that may mandate the use of the platform in the future. Thus, organizational behavioral intention is shaped by a synergy between internal strategic foresight and emerging regulatory trajectories.

In addition to internal factors, several external constraints emerged as potential barriers to broader adoption. One of the most significant challenges relates to gaps within the national payment infrastructure. The VP noted that K-CASH currently does not support transfers via the National Clearing System (SKN), while many custodian banks and Selling Agents (SA) have not yet joined the BI-FAST network. This disparity creates structural limitations for institutions seeking to migrate to K-CASH, as the supported payment channels do not yet accommodate the diversity of banking infrastructures across the industry. As a consequence, the feasibility of large-scale adoption is reduced, and institutions may postpone integration until the technological ecosystem becomes more interoperable.

The VP further highlighted that the full benefits of K-CASH would only be realized if its adoption were mandated by regulators, similar to the implementation of S-INVEST. Mandatory adoption would ensure uniformity in operational workflows, reduce transaction cancellations, and streamline fund processing between custody and investor fund accounts (IFUA). However, achieving this level of integration requires extensive coordination and agreement among market participants, including fund managers, custodian banks, and financial technology-based Selling Agents. The VP's reflections suggest that regulatory endorsement, industry consensus, and technological standardization are essential prerequisites for maximizing the system's operational advantages.

From the perspective of end-users, the need for harmonized adoption across the industry was also emphasized. OFC-2 expressed that the system's intended efficiency gains would only be realized if all financial institutions within the fund transaction chain adopt K-CASH in a consistent manner. Fragmented adoption would perpetuate duplicated processes and operational inefficiencies, undermining the intended impact of the system's design. This view underscores the interdependence inherent in the capital market ecosystem, where the effectiveness of a digital platform is contingent upon synchronized adoption among interconnected entities.

Overall, the findings demonstrate that behavioral intention toward K-CASH is shaped not only by user perceptions of the system but also by organizational strategy, regulatory landscape, and payment infrastructure readiness. The successful implementation of K-CASH will thus depend on a combination of internal preparedness, external interoperability, and regulatory direction. These insights expand the UTAUT framework by highlighting ecosystem-level determinants that influence technological adoption in complex financial environments, reinforcing the need for multi-stakeholder coordination to ensure the long-term sustainability of digital transformation initiatives in the capital market sector.

Interpretive Findings of the UTAUT Variable Analysis in the Pilot Testing of K-CASH for Mutual Fund Transactions from the User Perspective

Table 3
Interpretation of UTAUT Variables in the K-CASH Pilot Trial from the User Perspective

UTAUT Variable	Summary of Findings by Role	Interpretative Analysis
Performance Expectancy (PE)	The VP perceives K-CASH as a strategic initiative that enhances institutional reputation and simplifies internal workflows. The AVP views the pilot as effective in assessing system readiness and improving coordination with KSEI. The MGR highlights the usefulness of the *directly to IFUA account* feature but notes limited benefits due to low participation among Selling Agents (SAs). OFC-1 and OFC-2 report improved reconciliation speed and easier transaction identification via the dashboard summary.	The findings indicate a high level of confidence in K-CASH's potential to improve efficiency and accuracy in mutual fund transactions. Nevertheless, optimal benefits can only be realized when system adoption becomes widespread across all industry actors, especially fintech-based Selling Agents.
Effort Expectancy (EE)	The VP considers the pilot easy to execute due to strong internal planning and cross-division coordination. The AVP finds the test cases straightforward, supported by dummy data despite additional work required to prepare internal inputs. The MGR notes that KSEI's guidance is clear, though technical issues such as system errors and freezes still occur. OFC-1 and OFC-2 describe the pilot as easy to follow due to comprehensive instructions provided by KSEI, although some testing occurred outside regular working hours.	EE is consistently high across all roles, reflecting a shared perception of ease in learning and operating the system. The clarity of test procedures and user interface contributes to positive user experiences. However, system stability issues and off-hour testing pose challenges that affect overall comfort and usability perceptions.
Social Influence (SI)	The VP emphasizes that K-CASH is treated as an organizational priority and viewed as a strategic achievement in the eyes of the regulator. The AVP experiences strong institutional trust, having been assigned leadership of the pilot by senior management. The MGR notes effective cross-team coordination supported by active involvement of VP and AVP, which strengthens collective responsibility. OFC-1 and OFC-2 highlight that guidance from supervisors	SI emerges as a highly influential factor, with strong leadership support and organizational collaboration accelerating system acceptance. Social and institutional pressures play a central role in reinforcing user engagement, aligning with UTAUT's assertion that authority and normative support significantly shape behavioral intentions toward technology adoption.

UTAUT Variable	Summary of Findings by Role	Interpretative Analysis
	fosters commitment and accuracy during testing.	
Facilitating Conditions (FC)	The VP reports that despite the absence of a dedicated budget, internal infrastructure and resources are sufficient and well-managed. The AVP observes effective external coordination but mentions limited system access, as only one account is shared by the entire team. The MGR highlights effective communication with KSEI through guidance materials, virtual meetings, and messaging groups, although response delays occur due to working-hour differences. OFC-1 acknowledges strong internal IT support, while OFC-2 notes convenient system access via a dedicated IP and internal training by team leaders, though formal training from KSEI is still needed.	FC reflects a high level of internal readiness, while also revealing gaps on the external side, particularly in KSEI's technical responsiveness and inter-organizational training. Robust IT support, cross-functional coordination, and self-directed learning are central enablers of the pilot's implementation. Further enhancement of cross-institutional technical support remains essential.
Behavioral Intention (BI)	The VP expresses strong commitment to continue K-CASH implementation despite the project's voluntary nature, citing strategic and reputational benefits. The AVP and MGR indicate readiness to proceed to production after final system validation, expecting greater standardization across SAs. OFC-1 believes the system will be more efficient once real investors begin using it, while OFC-2 hopes for uniform adoption among fintech-based SAs.	BI is high across all roles, demonstrating strong willingness to continue using K-CASH on an ongoing basis. However, full-scale implementation remains contingent on external factors such as SA readiness, regulatory support, and interoperability across market institutions.

The findings indicates that the acceptance of the K-CASH system during the pilot phase at PT X is notably high across all user levels. Performance Expectancy and Social Influence emerge as the most influential variables driving system adoption, demonstrating that users place strong confidence in the system's ability to enhance operational efficiency while also responding to explicit expectations and support from organizational leadership. Effort Expectancy and Facilitating Conditions further strengthen user readiness, supported by clear test procedures, intuitive system design, robust internal coordination, and adequate technological infrastructure within the organization.

Behavioral Intention reflects a solid organizational commitment to progressing toward full-scale implementation of K-CASH. However, the analysis also underscores that successful long-term adoption is not determined solely by internal readiness. Instead, it depends significantly on the broader readiness of the capital market ecosystem—including

Selling Agents, custodians, financial technology distributors, and regulatory harmonization. Full optimization of K-CASH can only be realized when external infrastructures and inter-institutional coordination mature in parallel with internal preparedness.

Overall, the findings highlight that while PT X is institutionally prepared and willing to advance the implementation of K-CASH, the sustainability and effectiveness of the system will ultimately require industry-wide standardization, stronger cross-institutional integration, and comprehensive regulatory support.

CONCLUSION

This study aims to evaluate the initial acceptance of institutional users toward the K-CASH (KSEI Cash Management System) during its pilot testing phase at PT X, using the Unified Theory of Acceptance and Use of Technology (UTAUT) as the analytical framework. Through an examination of in-depth interviews and pilot testing documentation, the study identifies key factors that influence the early-stage acceptance of the system within the custodian banking environment.

Based on the findings, Performance Expectancy (PE) indicates that all informants perceive K-CASH as a system capable of enhancing operational efficiency, accelerating fund settlement processes, and reducing the risk of manual errors. The system is also viewed as strengthening transaction transparency through direct integration with S-INVEST and BI-FAST. These perceived benefits are the primary reasons PT X actively participated in the pilot testing, despite the system not being mandatory.

With respect to Effort Expectancy (EE), the interview results and data triangulation demonstrate that users consider K-CASH to be easy to understand and operate. Test guidelines, scenario-based test cases, and technical communication support from KSEI helped reduce the learning curve for users. The technical issues encountered—such as minor errors in the report download menu—were temporary and did not disrupt the overall testing process. Thus, system clarity and ease of use serve as key determinants of initial acceptance at the operational level.

In terms of Social Influence (SI), system acceptance is strongly shaped by regulatory support (KSEI and OJK) and the commitment of PT X's top management. Participation in the K-CASH Working Group is perceived as both a strategic compliance measure aligned with the capital market digitalization agenda and an opportunity to strengthen the institution's position as an adaptive and technologically responsive market actor. This social influence further enhances cross-unit coordination and fosters a collective sense of responsibility for the success of the pilot testing (KSEI, 2024b, 2025b, 2025a).

Meanwhile, Facilitating Conditions (FC) indicate that PT X already possesses adequate infrastructure and human resources to support system testing. The pilot phase was facilitated by effective coordination between operational and IT units. However, challenges remain in synchronizing internal systems with the K-CASH dashboard and in managing the response time of external technical support. Triangulation of testing documents demonstrates alignment between user perceptions and technical realities, signaling that organizational readiness is generally strong, though further improvements are needed in cross-unit system integration.

Beyond the four key UTAUT constructs, the study also reveals the presence of behavioral intention among institutional users. Most informants express a willingness to continue using K-CASH provided that the capital market ecosystem for mutual fund transactions is fully supportive and that a clear implementation roadmap is established. This indicates that initial acceptance has the potential to evolve into long-term adoption intention, contingent on the maturity of regulatory, technological, and institutional readiness.

Overall, the study concludes that acceptance of K-CASH in the pilot phase is shaped by a combination of technical, organizational, and institutional factors. Users perceive the system as offering substantial added value, ease of use, and alignment with the broader capital market digitalization agenda. However, the pilot results also highlight that the current capabilities of K-CASH remain limited, particularly because the system does not yet support Real-Time Gross Settlement (RTGS) transactions and is not integrated with all non–BI-FAST participant banks. These limitations hinder the realization of full efficiency and seamless integration. Therefore, the long-term success of K-CASH adoption will depend heavily on ecosystem readiness, enhanced interoperability, and consistent policy support from KSEI and OJK.

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