

Collaborative Organisational Culture and Knowledge Management in D-SIBs: Insights from the SECI Model's Combination Phase

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Abstract

In today's knowledge-driven economy, effective knowledge management is leading to organizational success. Yet, its implementation hinges not just on systems, but crucially on organizational culture, particularly collaboration. While its importance is widely acknowledged, fostering a culture of continuous knowledge exchange remains a challenge, especially in dynamic sectors like banking, where strategic agility is vital. This study addresses the gap between recognizing collaborative culture's value and its practical application, focusing on how it influences KM practices within Domestic Systemically Important Banks. Specifically, the research investigates the impact of collaborative organizational culture on implementing KM practices, with a lens on the SECI model's combination phase. Employing a mixed-methods approach where qualitative interviews with 20 executives and a quantitative survey of 384, the study reveals that hierarchical, process-oriented, and freedom-driven collaborative cultures, all underpinned by strong leadership, significantly shaped KM implementation in D-SIBs. The findings underscore the need for D-SIBs to cultivate a multi-faceted collaborative culture. Recommendations include fostering hierarchical structures for consistency, process-oriented approaches for standardized execution, and a degree of freedom for innovation, all supported by leadership development to optimize knowledge sharing and utilization.

Keywords: Knowledge Management, SECI Model, Combination, Organisation Culture.

1. Introduction

In an increasingly knowledge-driven economy, effective knowledge management (KM) has become a critical determinant of organizational success and sustainability. KM refers to the systematic processes through which organizations create, share, use, and manage knowledge to enhance performance and innovation (Nonaka & Takeuchi, 1995). However, the success of KM initiatives is not solely dependent on technology and systems; rather, it is deeply embedded in the organizational culture (Alavi & Leidner, 2001). Among the various cultural dimensions that influence KM, collaborative organizational culture—characterized by trust, openness, teamwork, and knowledge sharing—is particularly pivotal (De Long & Fahey, 2000). Despite the widespread recognition of its importance, many organizations struggle to foster a culture that supports collaboration and continuous knowledge exchange (Choi et al., 2008). This gap becomes especially critical in dynamic and complex work environments where the ability to manage and mobilize organizational knowledge is vital for innovation and strategic agility (Gold et al., 2001). The lack of collaborative norms and practices often leads to knowledge hoarding, fragmented communication, and underutilization of intellectual capital (Cabrera & Cabrera, 2005). The rationale for this study lies in addressing the cultural barriers that hinder effective KM practices. While previous research has explored the role of culture in KM, fewer studies have specifically examined how a collaborative organizational culture directly influences knowledge creation, sharing, and retention within organizations (Donate & de Pablo, 2015). In light of this, there is a pressing need to investigate how collaborative values and behaviours within organizational settings can enhance KM practices, especially in knowledge-intensive sectors.

Despite the acknowledged importance of collaborative organizational culture for knowledge management (KM), existing research insufficiently details its direct influence on specific KM practices (knowledge creation, sharing, and retention). Therefore, the aim of this study is to identify the influence of collaborative organizational culture on implementing knowledge management practices in Domestic Systemically Important Banks (D-SIBs), identifying the key cultural enablers and inhibitors that shape the way knowledge is created, shared, and utilized in D-SIBs.

2. Literature Review

2.1. Knowledge Management

The foundations of knowledge management (KM) were laid by Nonaka and Takeuchi (1995), who introduced the knowledge-creating company concept. They emphasized that knowledge, particularly tacit knowledge, is a strategic asset and that its dynamic conversion into explicit knowledge is vital for innovation. Their SECI model—Socialization, Externalization, Combination, and Internalization—became a cornerstone of KM theory. Following this, Alavi and Leidner (2001), provided a

comprehensive review of KM systems, identifying KM as a systematic process of acquiring, organizing, and communicating both tacit and explicit knowledge to enhance organizational performance. They emphasized that the success of KM initiatives is as much cultural as it is technological.

2.2. SECI Model and the 'Combination' Phase

Nonaka and Konno (1998), further refined the SECI model by introducing the concept of “Ba”—a shared space for knowledge creation. They described the Combination phase as one where explicit knowledge is combined, edited, and systematized into more complex sets using documents, databases, and meetings. This stage is heavily dependent on organizational infrastructure and the degree of collaboration across departments. Grant (2007), emphasized that the Combination process benefits greatly from collaborative organizational structures, where boundaries are flexible, and information can flow freely. Without a collaborative environment, the integration of diverse explicit knowledge can be fragmented and less innovative.

2.3. Organizational Culture and Collaboration

De Long and Fahey (2000), were among the first to explore how organizational culture influences knowledge behaviors, arguing that shared norms and values either promote or inhibit knowledge sharing. They identified collaboration and trust as essential cultural elements for successful KM. Similarly, Cabrera and Cabrera (2005), found that collaborative cultures facilitate knowledge sharing by reducing perceived risks and encouraging reciprocal behaviors among employees. McDermott and O'Dell (2001), reinforced this view, noting that cultural traits like openness and teamwork are critical in translating KM strategies into practice. They observed that organizations with collaborative cultures are more likely to embed knowledge sharing into daily routines, thus creating a sustainable KM environment.

2.4. Collaborative Culture and KM

Donate and de Pablo (2015), proposed that knowledge-oriented leadership and collaborative culture are strong predictors of KM effectiveness. They found that shared vision, trust, and open communication significantly influence the success of each SECI phase, particularly the Combination stage, which relies heavily on systematizing and exchanging knowledge across units. More recently, Kim et al. (2021), examined the moderating role of collaborative culture in the relationship between IT-enabled KM and innovation performance. They confirmed that collaborative environments amplify the positive impact of KM, especially when organizations utilize IT tools to foster knowledge combination and reuse.

2.4.1. The hierarchical collaborative culture in implementation of KM Practices

The hierarchical organizational culture is closely tied to organizational structure and plays a significant role in shaping knowledge management (KM) practices. Mason and Pauleen (2003), through a study of New Zealand middle managers, identified key KM barriers—organizational culture, leadership, and

education—and key KM drivers such as competition, peer pressure, and productivity. They emphasized that organizational structure, trust, communication, and knowledge-sharing norms all influence KM effectiveness. Kaffashpoor et al. (2013), in a study of 14 Mashhad Municipality branches in Iran, affirmed KM's positive impact on organizational performance. They identified strategy, leadership, organizational culture, and structure as critical organizational culture (OC) factors affecting KM. Ali et al. (2016), argued that hierarchical cultures offer well-defined, structured processes, though limited research has focused on how such cultures affect knowledge creation and the SECI model, particularly in the combination phase. In decision-making under risk, Riabacke (2006), highlighted that managers rely on adequate information, expertise, and intuition to make informed decisions. They gather data, explore alternatives, and proactively mitigate risks. Similarly, Flüeler and Blowers (2007), emphasized that the quality of decisions depends on goal clarity, solution alternatives, and balancing values. Dezfuli et al. (2010), reinforced that risk analysis in decision-making requires differentiating potential outcomes, often driven by systemic programming or environmental stimulus. Earlier, D'Ambrosio et al. (1994), demonstrated how shared utility functions within hierarchical settings can coordinate group decisions, even when individual goals are misaligned. Panpatte and Takale (2019), underscored decision-making as a central organizational function involving accurate problem identification and intellectual processing to choose optimal solutions. A poor decision may risk organizational failure. Addressing the cognitive aspects, Sternberg et al. (2000), and Pretz (2008), emphasized the value of intuitive, experience-based tacit knowledge in solving poorly structured, high-stake problems. Pretz also noted that cognitive style, experience, and problem complexity influence whether analytical or intuitive strategies are more effective—novice decision-makers often benefit less from analysis alone. Lastly, Abubakar et al. (2019), stressed the necessity for measured and deliberate knowledge application, especially for making fast, informed decisions. They highlighted that while organizational performance depends on measurable goal achievement, this often relies on dynamic KM processes without rigid structures but with implicit requirements. Moreover, according to Xu et al. (2022), they found that tightly controlled, hierarchical teams generate less innovative knowledge than flat teams supporting the notion that structured oversight may constrain creative KM while facilitating error reduction

Ha1: There is an influence of hierarchical collaborative on Implementing Knowledge Management Practices in D-SIBs

2.4.2. Process collaborative culture in implementation of KM Practices

According to Morawski (2020), knowledge-oriented organizations need an environment with clearly defined processes that allow them to operate within comfort zones, turning them into active investors in their intellectual capital. Their engagement in knowledge sharing is essential for achieving long-term, sustainable competitive advantage. Teece (2000), emphasizes that planning is a vital component of knowledge management. Senior management, understanding both internal and external organizational

contexts, can implement suitable rules and regulations that guide KM initiatives. The effectiveness of KM practices depends on the organization's specific goals, rules, and services, highlighting the importance of contextual appropriateness. In the study by Abubakar et al. (2019), knowledge enablers and well-defined procedures are shown to contribute to organizational success through enhanced performance. Accurate decision-making strengthens internal relationships, and the connection between knowledge generation and performance can be moderated by decision-making styles—whether intuitive or rational. A streamlined process facilitates smoother decision-making. Zgirskas et al. (2021), found that standard process support helps reduce organizational workload, increase productivity, and minimize task errors, which all contribute to better decision-making. However, they noted that further research is necessary to validate these findings and linked their results to the importance of implementing quality management systems. Whereas the research findings of Iuliana et al. (2023), have highlighted that process standardization, when paired with digital infrastructure, significantly enhances knowledge transfer, process clarity, and systemic consistency.

Ha2: There is an influence of process collaborative on Implementing Knowledge Management Practices in D-SIBs

2.4.3. Collaborative Culture of Freedom in implementation of KM Practices

According to Hudson and Verschuur (1998), the belief that individual traits primarily cause rule and policy bending often shifts attention to solutions like training, incentives, and selection. However, their findings indicate that the root causes are largely external, such as poor planning, ineffective process improvement, and existing opportunities that allow such behavior. They argue that individuals in managerial and supervisory roles—who often possess greater personal strength—are more likely to seize such opportunities and exhibit initiative by bending the rules. Bonito (2012), highlights that decision-making is arguably the most critical function in management theory. However, he cautions against the assumption that only top executives are responsible for decisions. In reality, decision-making occurs at all organizational levels, branch, departmental, and operational—and must be supported by democratic processes to ensure effective outcomes. He stresses that group decisions by teams and committees are now integral to organizational functioning, necessitating sound decision-making across all levels. In the research by Dačiulytė and Pinchuk (2010), it was found that employees in surveyed firms felt their immediate supervisors did not adequately support learning, innovation, or risk-taking. The study also revealed significant differences between private and public organizations: employees in private firms reported receiving greater leadership support and were more inclined toward self-directed learning. They leveraged a wider variety of learning resources, including peer collaboration, specialist support, and learning through observation and personal experimentation. In contrast, public sector employees showed a lower tendency toward independent learning and utilized fewer learning opportunities. Based on the findings of Koivisto & Taipalus (2023), that revealed the

freedom and social trust are crucial enablers of tacit knowledge sharing; organizations with more fluid, less rigid norms exhibited stronger KM implementation.

Ha3: There is an influence of Collaborative culture of Freedom on Implementing Knowledge Management Practices in D-SIBs

2.4.4. Collaborative Culture of Leadership in implementation of KM Practices

Ovbagbedia and Ochieng (2015) found that knowledge transfer within Nigerian heavy engineering teams is hindered by personal interest, lack of confidence, overconfidence, discrimination, lack of trust, and inadequate encouragement from top management. These barriers create hesitation among team members to share valuable knowledge. According to Rahman et al. (2018), leadership ability plays a significant role in the process of knowledge transmission. Their study underscores that fostering a social unit within the organization is essential, as knowledge sharing is more likely to occur when employees cooperate or at least interact toward common organizational goals. The concept of open leadership is explored in Li (2010), who emphasizes that leadership traits have evolved due to technological advancement and the adoption of multimedia communication. Open leaders foster knowledge sharing by recruiting and promoting the right individuals, cultivating a culture of openness, eliminating barriers, encouraging risk-taking, and promoting recovery from failure. Mustafa and Robertson (2022), provided evidence that organizational culture and leadership styles significantly influence decision-making. Their study highlights the importance for managers, especially new ones, to understand their own leadership styles, adapt to their organization's culture, and make decisions with both organizational outcomes and employee impact in mind. Decision-making, in this context, becomes the most critical factor in evaluating company performance. In the study of Ewertz et al. (2009), it was shown that higher management can delegate authority to informal groups within a more decentralized structure. These informal groups may be empowered with autonomy to make investment decisions, thus reducing bureaucratic delays. Respondents emphasized that empowering employees helps accelerate decision-making processes, especially when those employees are confident and trusted. Bolden (2010), framed leadership as either the formal authority of a person or a broader organizational and social influence process. The selection of a leader is influenced not only by individual traits and life experience but also by cultural and societal factors. Wray (2017), introduced the concept of intuitive decision-making, where hidden knowledge derived from past experiences is used to facilitate quicker decisions. This right-brain-driven approach prioritizes intuition over logic. Busari et al. (2017), supported this view by describing intuitive decision-making as a spontaneous and loosely structured process for evaluating available information. Kahneman and Klein (2009), further noted that intuitive processes free the mind from intensive logical computation, allowing cognitive resources to be used elsewhere. This enables leaders to make effective decisions in uncertain and complex situations by relying on gut feeling and past tacit knowledge. According to Kumar et al. (2024), their research findings demonstrated that

participative leadership, enhanced by supportive coworker knowledge-sharing context, significantly improves creative validation a key KM outcome.

Ha4: There is an influence of Collaborative Culture of Leadership on Implementing Knowledge Management Practices in D-SIBs

3. Methodology

This study investigates the influence of collaborative organisational culture on knowledge management practices within Domestic Systemically Important Banks (D-SIBs), with a specific focus on the combination phase of the SECI model. Guided by an epistemological stance of pragmatism and employing an abductive research approach, this study adopted a mixed methods design to provide a comprehensive understanding of the phenomenon. Data collection was conducted in two distinct phases.

Phase 1: Qualitative Data Collection

The initial phase involved semi-structured interviews with 20 executive-level staff members across the four identified D-SIBs. A purposive sampling technique was used to select five participants from each bank who possessed relevant insights into their organisation's culture and knowledge management initiatives. The Human Resource Department of each bank has supported the researcher to select Heads of Department who have got over 10 years' experience category. The semi- structured interview questions that were checked with the research supervisor for clarity were designed to explore their perceptions and experiences related to collaboration, knowledge sharing, and the processes involved in the combination phase of the SECI model. The qualitative data collected from these interviews were analysed using thematic coding to identify recurring patterns, key themes, and nuanced perspectives.

Phase 2: Quantitative Data Collection

The second phase employed a structured survey questionnaire (the questionnaire was checked through four selected Heads of Department from each bank for clarity) to gather quantitative data from a larger sample of executive-level staff within the same four D-SIBs. A stratified random sampling method (four strata as there are only four D-SIBs in Sri Lankan context) was utilised to ensure representation from each bank. A total of 384 questionnaires were distributed, with 96 executive-level staff members selected from each bank who were employed during the period of December 2023 to March 2024. The questionnaire included validated scales to measure collaborative organisational culture and various dimensions of knowledge management practices, particularly those relevant to knowledge combination. The quantitative data obtained from the completed questionnaires were analysed using descriptive

statistics (e.g., means, standard deviations), correlational analysis to examine the relationships between variables, and chi-square tests to assess potential associations between categorical variables.

The integration of qualitative and quantitative data, guided by the principles of pragmatism and the iterative nature of the abductive approach, allowed for a richer and more robust understanding of the interplay between collaborative organisational culture and knowledge management practices within the specific context of D-SIBs. The qualitative findings provided contextual depth and helped to refine the understanding of the quantitative relationships identified.

4. Data Analysis

4.1. Phase 01 Data Analysis

4.1.1. The hierarchical collaborative culture in implementation of KM Practices

Hierarchical culture provides a platform for all the D-SIB staff to practice same policies, procedures and process to improve the uniformity of the service delivery. Hierarchical Culture & Decision Making has been emphasized by the interviews as the following. *Public bank 01: Supports staff in day-to-day decisions, cross-checking reduces risk. Easy decision-making if information access is clear, can refer to procedures. Public bank 02: Welcomes staff interaction and guides decisions to avoid errors. Managers also guide subordinates; clear information flow saves decision time. Private bank 01: Understanding bank structure facilitates finding solutions and seeking approvals, minimizing errors and risks through supervisor/manager involvement. Private Bank 02: Clear understanding of structure enables easier support and faster risk-free decisions.* Knowledge Availability & Control in Decision Making is another factor that shows in the collaborative culture support in KM practices, and which was also stated by interviewees. Making D-SIBs knowledge accessible helps staff follow correct instructions. Leaders control decision-making at different levels without impacting overall bank decisions. *Public bank 01: Staff seek approval for decisions needing it, enabling oversight of decision correctness. Public bank 02: Decision approval needed at different levels based on importance/urgency. Private bank 01: Flexible culture, but crucial decisions require HOD, branch manager, or higher-level approval. Private bank 02: Important decisions need higher-level approval to prevent wrong decisions and maintain control when dealing with customers.* Collaborative culture further established Seeking Support & Coordination in Decision Making Seeking manager/HOD support reduces mistakes as leaders verify decisions against instructions. Leader involvement speeds up necessary decisions, preventing aggressive actions by junior staff that could displease loyal customers. *Public bank 01: Policy documents provide clear decision-making instructions and customer information. Available resources and coordination facilitate decision-making. Public bank 02: Staff coordinate well within and across divisions due to proper structure and clear decision-making*

instructions, easing the process. Private bank 01: Visible organizational structure eases coordination. Clear instructions exist for seeking approval from immediate supervisors or higher levels. Private bank 02: Knowing who to contact for information enables correct decisions. Instructions are provided for staff to refer to and coordinate with relevant individuals for quick decisions.

4.1.2. Process collaborative culture in implementation of KM Practices

Performing jobs the same way across branches simplifies collaboration and ensures correct execution. Process culture supports convenient decision-making. Well-defined processes in D-SIBs enable employees to easily perform tasks and make necessary decisions. *Public bank 01: Banking culture relies on processes; knowing the correct process eases decision-making. Public bank 02: Processes vary by department, briefed during induction, enabling employees to know their job and required decisions. Private bank 01: Knowledge of banking processes is crucial. Supportive culture assists colleagues in making correct decisions even without process knowledge. Private bank 02: High reliance on processes ensures employees understand customer service processes, leading to faster service.* Rules define acceptable actions. Consistent processes across branches ensure uniform service delivery. *Public bank 01: Well-defined rules and procedures are shared with employees, who must adhere to them within their decision-making scope. Public bank 02: Policies are stored in databases for employee reference in decision-making. Set rules guide employee actions. Private Bank 01: Clearly defined rules, procedures, and policies are essential to avoid mistakes. New and existing employees have intranet access to relevant information. Private bank 02: Employees are well-aware of rules, regulations, and policies, crucial for providing correct customer solutions.* Making D-SIBs knowledge accessible helps staff follow processes and procedures in decision-making, indicating successful KM implementation through correct decisions. *Public bank 01: Easy to follow bank processes; knowing how to decide leads to right decisions. Public bank 02: Bank processes clearly define decision-making, leading to consistently correct decisions. Private bank 01: Adherence to bank processes ensures right decisions. Newcomers receive training to follow processes. Private bank 02: Following correct processes and procedures reduces mistakes.* Strong connection to and consistent adherence to processes minimizes errors and facilitates correct problem-solving decisions. Available policies and procedures reduce mistakes as staff know what and how to do things, enabling fast decisions. *Public bank 01: Similar daily cases have established processes, guided decision-making and reducing errors. Public bank 02: Staff make few decision-making errors due to clear understanding of required actions for problem-solving. Private bank 01: Repeated processes and CCTV-based training help staff learn and make error-free decisions. Private bank 02: Following correct processes and procedures reduces mistakes due to a strong connection and consistent adherence, minimizing errors.*

4.1.3. Collaborative Culture of Freedom in implementation of KM Practices

Unfettered freedom in decision-making could be risky. Banking culture permits free decision-making under supervision. D-SIBs generally develop necessary policies. However, some top management allow branches to adopt policies based on local needs for better customer service. *Public bank 01: Policies align with government regulations and are generally followed. Branches can bend policies based on their specific needs with approval. Private bank 02: Branches have freedom to amend loan policies based on local area requirements, subject to approval.* Top management grants freedom for departmental and branch-level decision-making, trusting staff experience and knowledge. *Public bank 01: Involves team in decision-making within the division; branches also have decision-making opportunities. Public bank 02: Departmental decisions are made without higher management approval if they don't impact strategy. Branches, call centers, and card centers have freedom for simple decisions. Private bank 01: Decisions affecting bank-wide processes require approval, but day-to-day decisions are permitted, and teams are allowed to make certain decisions. Private bank 02: Departmental and branch staff can make certain decisions without frequent permission. Branch-level staff understand local issues better than head office and are empowered to decide quickly.* Departmental staff have in-depth knowledge, granting them decision-making freedom over director board involvement. Staff at branch and department levels have freedom to make simple daily decisions without supervisor involvement. HODs trust their self-directed teams to make correct decisions with less supervision. *Public bank 01: Allows staff to make certain daily decisions without requiring approval for every single action, relying on their experience and knowledge. Has a self-directed team.*

Public bank 02: Well-trained and self-directed teams collaborate, enabling monitoring and independent decision-making without interference. Private bank 01: Has a capable self-directed team that can make decisions independently, seeking advice occasionally but eventually operating autonomously. Private bank 02: Aims to build strong, independent teams capable of making the right decisions autonomously. The division has self-directed teams that operate without direct involvement.

4.1.4. Collaborative Culture of Leadership in implementation of KM Practices

Leadership involves developing self-motivated teams and enhancing their skills for future responsibilities. D-SIB leaders are open-minded, considering different perspectives for correct decision-making and team guidance. *Public bank 01: Leaders should be open-minded to listen and consider different perspectives for necessary actions. Public bank 02: Leaders (HODs, Managers, top employees) have good vision, fostering open-mindedness for correct decisions. Private bank 01: Top management is open-minded, allowing input before decisions, which is appreciated. Private bank 02: Team leaders strive to be open-minded to see problems from various angles before deciding.* D-SIB leaders have a clear vision and actively participate in critical team decisions, aligning them with the bank's vision. They understand uncertain situations and guide staff in dealing with difficult customers.

Public bank 01: Leaders make daily decisions understanding the situation, balancing bank needs with staff management in uncertain times. Public bank 02: Top managers with experience understand current affairs and act quickly in uncertain situations, balancing employee and bank needs, which is a learning experience. Private bank 01: Understanding the context is crucial for decision-making in a financial institution facing uncertain situations, balancing impact on staff and the bank. Private bank 02: During crises, the bank had a significant responsibility to make correct decisions considering the country, customers, staff, and the bank equally. Leaders' predominant style fosters trust and builds staff confidence in decision-making through guidance, incorporating staff ideas, and active listening. Public bank 01: Leads team in the right direction while encouraging involvement in decision-making and challenges to build self-confidence. Public bank 02: Top-level management's clear vision provides leadership; encouraging subordinates to decide builds their self-confidence. Private bank 01: HODs and branch managers involve themselves in decision-making through guidance, encouraging staff to develop confidence in giving ideas and solving problems. Believe in the importance of predominant leadership in guiding staff. Private bank 02: Director board members' predominant leadership is crucial for correct decision-making in difficult times and supports job performance. Their trust builds staff self-confidence in working towards the bank's vision.

4.2. Phase 02 Data Analysis

The descriptive and inferential statistical analysis results for the study as given below.

Table 1: Descriptive Statistical Analysis

		Hierarchical_ Culture	Process_Cult ure	Culture_of_F reedom	Leadership_ Culture
N	Valid	384	384	384	384
	Missing	0	0	0	0
Mean		3.6115	3.5563	3.5401	3.8505
Mode		4.00	4.00	4.00	4.00
Std. Deviation		.69560	.73606	.66549	.72756

The descriptive statistics gathered from 384 valid responses provide insightful trends regarding the influence of various dimensions of collaborative organisational culture on knowledge management practices, particularly within the Combination Phase of the SECI model. Among the four cultural dimensions assessed—Hierarchical Culture, Process Culture, Culture of Freedom, and Leadership Culture—Leadership Culture emerged with the highest mean score (M = 3.8505). This suggests that leadership plays a pivotal role in facilitating the integration and systematisation of knowledge, which

is critical during the combination phase of knowledge management. The consistency of responses is also relatively strong, as evidenced by a moderate standard deviation of 0.72756. Following closely are Hierarchical Culture ($M = 3.6115$) and Process Culture ($M = 3.5563$), indicating that structured authority and systematic processes moderately support knowledge combination, possibly through formal channels and controlled dissemination of information. Culture of Freedom, while slightly lower ($M = 3.5401$), still reflects a moderately positive environment for open idea sharing and innovation. Notably, all four variables have a mode of 4.00, suggesting that the most frequent perception among respondents was that these cultural attributes are positively present within their institutions. In terms of variability, Culture of Freedom shows the lowest standard deviation ($SD = 0.66549$), indicating that respondents' views were more consistent regarding the openness and flexibility within their organisational culture. Meanwhile, Process Culture had the highest variability ($SD = 0.73606$), possibly implying divergent experiences related to formal procedures and systems across different institutions or departments.

Table 2: Inferential Statistical Analysis

	Value	Asymp. Sig. (2-sided)	Pearson Correlation
Hierarchical_Culture	393.820a	0.000	.241**
Process_Culture	1707.866a	0.000	.779**
Culture_of_Freedom	2535.901a	0.000	.872**
Leadership_Culture	2778.619a	0.000	.953**

According to the Chi-square test results, all four cultural dimensions—Hierarchical Culture ($\chi^2 = 393.820$), Process Culture ($\chi^2 = 1707.866$), Culture of Freedom ($\chi^2 = 2535.901$), and Leadership Culture ($\chi^2 = 2778.619$)—yielded asymptotic significance values of 0.000. These p-values are well below the conventional threshold of 0.05, indicating that the observed relationships are statistically significant. This supports the overall assertion that these cultural factors are not independent of knowledge management practices in D-SIBs but are closely associated with their implementation. Furthermore, the Pearson correlation coefficients demonstrate the strength and direction of these relationships. The Leadership Culture dimension shows an exceptionally strong positive correlation ($r = 0.953$, $p < 0.01$), indicating that as collaborative leadership behaviours increase, the effectiveness of knowledge integration during the combination phase also significantly improves. This underscores the critical role of visionary and participative leadership in fostering an environment conducive to knowledge sharing and synthesis. Similarly, Culture of Freedom demonstrates a very strong correlation ($r = 0.872$, $p < 0.01$), suggesting that environments which encourage autonomy and openness significantly boost the

organisation's ability to implement knowledge management effectively. Process Culture also reveals a strong positive correlation ($r = 0.779$, $p < 0.01$), which highlights the importance of structured, repeatable processes in supporting the combination and integration of knowledge assets across organisational silos. Lastly, Hierarchical Culture presents a weaker yet still significant correlation ($r = 0.241$, $p < 0.01$). While this indicates that a structured authority framework contributes to knowledge management practices, its relatively lower correlation suggests that overly rigid hierarchies may inhibit the collaborative nature required for effective knowledge combination.

5. Discussion

The findings of this study reveal that collaborative organizational culture, especially under a hierarchical structure, plays a significant role in influencing KM implementation in Domestic Systemically Important Banks (D-SIBs). This is in line with the literature that highlights the influence of structure, leadership, and cultural context on KM effectiveness (Mason & Pauleen, 2003; Kaffashpoor et al., 2013).

Interview data shows that hierarchical cultures in D-SIBs enable uniformity in decision-making by providing clear processes, approval hierarchies, and accessible knowledge systems. Staff frequently rely on upper management for guidance, and this structure minimizes errors and enhances efficiency. These findings align with Ali et al. (2016), who emphasize that hierarchical cultures offer structured environments conducive to knowledge control and risk-reduction in decision-making. Moreover, consistent with Riabacke (2006) and Flüeler & Blowers (2007), managers at various levels in D-SIBs are empowered to make decisions based on information clarity, rules, and tacit experience, reinforcing how a strong hierarchical structure supports systematic KM. Decision-making here is both informed and monitored, facilitating the SECI model's "Combination" phase, as emphasized by Ali et al. (2016). The statistical findings further validated Ha1, with strong correlations between hierarchical collaboration and KM practices, particularly regarding knowledge availability and control, policy-driven decision-making, and managerial support.

A process-oriented culture reinforces D-SIBs' ability to deliver services consistently across branches. The interview evidence showed that standardized procedures enhance inter-departmental coordination, promote peer assistance, and guide employees in correct decision-making, even when facing unfamiliar situations. This supports Morawski (2020) and Zgirskas et al. (2021) who found that knowledge-oriented organizations thrive in environments where standard processes support employee comfort and reduce errors. The presence of clearly defined policies, intranet databases, and structured induction programs confirms Teece's (2000) assertion that senior management's role in defining KM rules is essential for effective knowledge transfer. These rules are not just compliance-based but form the

bedrock of organizational learning and operational accuracy. Statistical analysis confirms Ha2, with significant influence observed between process collaborative culture and KM practices—particularly on the variables of rule compliance, procedural knowledge availability, and task execution consistency.

Although D-SIBs are largely process- and structure-oriented, there is growing recognition of the need for freedom in learning, innovation, and intuitive decision-making. Interviewees highlighted that supervisors' encouragement and informal support mechanisms allowed staff to explore new solutions and share ideas, although public banks showed more limitations compared to their private counterparts. These observations support Hudson and Verschuur (1998) and Bonito (2012) who contend that while policy-bending is often viewed as negative, it can reflect initiative-taking when systemic support is lacking. Dačiulytė & Pinchuk (2010) also reinforce the idea that employees need leadership encouragement for self-directed learning and innovation—attributes found more in private banks, as per the interview insights. Statistical findings confirmed Ha3 by showing a positive, albeit weaker, correlation between freedom-based culture and KM implementation. This suggests that while freedom enhances innovation and tacit knowledge sharing (as per Sternberg et al., 2000; Pretz, 2008), it requires strong leadership support and trust to translate into effective KM.

Interview data underscored the critical role of leadership in fostering KM practices through trust-building, intuitive decision-making, and supportive delegation. Employees were more confident in making decisions when empowered by leadership finding consistent with Ovbagbedia & Ochieng (2015) and Rahman et al. (2018), who argue that top-down encouragement is vital for effective knowledge sharing. The emergence of open leadership, as emphasized by Li (2010) and Wray (2017), is evident in how D-SIBs balance hierarchical control with autonomy. Interviewees noted faster decisions and fewer bureaucratic delays when leaders empowered informal groups—a process linked to Busari et al. (2017) and Kahneman & Klein (2009), who advocate intuitive and experience-based leadership as a catalyst for decision-making in complex environments.

Table 3: Summary table of findings

Cultural Dimension	Secondary (Literature)	Research	Qualitative Findings (Interview Data)	Quantitative Findings (Survey Data)
Hierarchical Culture	Hierarchical cultures facilitate structured KM, oversight, and reduced decision errors (Ali et al., 2016; Riabacke, 2006).		Staff rely on clear structures and approval hierarchies. Decision-making is risk-averse, guided by accessible procedures and manager oversight. Knowledge is controlled yet available.	Mean = 3.61; Pearson r = 0.241** (significant, moderate). Indicates structured support for KM but lower correlation compared to others.
Process Culture	Standardized processes help transfer knowledge and ensure consistency (Teece, 2000; Zgirskas et al., 2021).		Emphasized role of uniform procedures, policies, and intranet databases in supporting accurate decisions. Reduces mistakes, promotes peer learning, and ensures consistency across branches.	Mean = 3.56; Pearson r = 0.779** (strong, significant). Confirms structured process enhances KM implementation, particularly in task execution and procedural clarity.
Culture of Freedom	Autonomy fosters creativity and tacit knowledge sharing when backed by trust (Bonito, 2012; Sternberg et al., 2000; Hudson, 1998).		Branches have some decision autonomy. Encouragement for team-based decisions and innovation is more visible in private banks. Freedom balanced with policy guidelines allows adaptive decisions based on local needs.	Mean = 3.54; Pearson r = 0.872** (very strong, significant). Suggests that flexible, open cultures significantly aid KM practices when combined with leadership trust.

Leadership Culture	Visionary, participative leadership is crucial for KM success and employee trust (Rahman et al., 2018; Li, 2010; Wray, 2017).	Leadership is open-minded, intuitive, and trust-based. Encourages self-directed teams, timely decisions, and collaborative problem-solving. Staff confidence grows through leader guidance and involvement.	Mean = 3.85; Pearson r = 0.953** (exceptionally strong). Indicates leadership is the strongest predictor of effective KM practices in D-SIBs.
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6. Conclusion and Recommendations

This study confirms that a hierarchical collaborative culture is closely linked to organizational structure and plays a critical role in shaping knowledge management (KM) practices within Sri Lanka's D-SIBs. The hierarchical model promotes consistency, reduces risk, and establishes clear lines of authority, making it suitable for structured KM in highly regulated banking environments. Additionally, a strong process collaborative culture supports KM by ensuring uniform task execution, accurate decision-making, and adherence to internal policies across the organization. At the same time, a culture of freedom fosters innovation, personal initiative, and experiential learning, although it requires stronger leadership support and broader institutional backing to reach its full potential. Leadership, in particular, emerges as a key enabler across all cultural dimensions, facilitating structured collaboration, inspiring trust, and promoting effective knowledge sharing. Overall, the findings highlight that a collaborative organizational culture—reflected in hierarchical, process-oriented, freedom-driven, and leadership-centered approaches—directly contributes to the successful implementation of KM practices in D-SIBs.

The study recommends that top management of D-SIBs foster an organizational culture that supports hierarchical, process, freedom, and leadership dimensions, as these significantly influence the successful implementation of knowledge management (KM) practices. Emphasis is placed on effectively executing the combination stage of the SECI model, which involves sharing newly created knowledge among employees to support informed decision-making. This process includes three key stages: capturing new knowledge using tools like data mining, intranets, and web portals; disseminating this knowledge via emails, intranets, and platforms such as WhatsApp; and applying it in daily operations using advanced IT systems like content management platforms, business intelligence tools, and workflow systems. Moreover, decision-making should be decentralized by providing employees

with clear, CBSL-compliant procedures rather than relying solely on hierarchical structures. Strong leadership is also critical; hence, it is recommended that leadership development and mentoring programs be conducted biannually for second- and third-level managers to strengthen their capacity to lead, make sound decisions, and support their teams effectively.

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