Knowledge Sharing and Transfer Frameworks: Lessons From Sub-Saharan South Africa

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Abstract: The success of Sub-Saharan South Africa’s public sector could be deemed dependent on context-relevant knowledge sharing and transfer (KST) frameworks to facilitate knowledge exchange. Knowledge sharing and transfer frameworks which facilitate knowledge management (KM) are still largely influenced by Western research studies, these contributions dominate the field. The extant knowledge sharing and transfer public management frameworks increasingly reflect a predominantly western oriented bias towards objectivist perspectives on knowledge, the alternate practice-based knowledge sharing and transfer frameworks, considered responsive to Sub-Saharan African knowledge exchange problems are under-investigated. This paper thus aims to understand ‘what KST framework factors enhance public management in Sub-Saharan South Africa’. The research was designed as a qualitative study underpinned by interpretivist philosophy. Qualitative data were collected from 15 public sector practitioners, using the semi-structured interview technique. Thematic Analysis and Trans Positional Cognition Approach was used to analyse the data collected. The findings from this study yielded four themes namely, Unique antecedent performance factors; Human performance factors; Organisational performance factors and Continuous learning performance strategies. Rahman’s knowledge sharing and transfer conceptual model was adopted as a theoretical framework and used to better understand the findings of this work. Applying the theoretical framework, we note elements within Rahman’s model could be deemed more applicable in a Western context as it only confirmed two of the study’s four findings. We therefore propose the output of this study as new knowledge within the Knowledge sharing and transfer frameworks’ domain. Our contribution is compatible with the Sub-Saharan South African organisational context. The implication of this within context is that KST implementation in Sub-Saharan South Africa could deemed bottom up oriented as against the western approach which is top-down. This study thus contributes to a better understanding of KST Framework implementation in Sub-Saharan South Africa and provides opportunity for future research work in this field.

Keywords: Knowledge; Knowledge sharing and transfer, South Africa, Qualitative research, Performance management, Performance innovation, Innovation enablers

1. Introduction

Public sector administrators in Sub-Saharan South Africa in recent times have given priority to knowledge transfer partnerships (KTPs), some, in the form of private-public partnerships (PPP) to achieve their knowledge sharing and transfer priorities in public management with their internal research and development units and employees playing leading roles to innovate performance (Fan et al., 2010). Osborn et al (2013) supported this idea, noting that effective public administration of sub-Saharan South Africa, should be underpinned by a well-managed state-based public sector organisation. Agreeing Levinthal & March (1993), postulated that for effective management to happen, there should be contextual congruence between knowledge flow and innovation performance sought devoid of myopia output if the goal of institutional knowledge sharing and transfer is to be met. Therefore, it is inconceivable within context to postulate about effective public management without understanding the factors which facilitate effective knowledge management in the public sector. Massaro et al. (2015) point out that factors which facilitate effective knowledge sharing and transfer in the public sector service, have not been systematically investigated in Sub-Saharan Africa. Glaser et al (2019) further postulated that existing knowledge management practice studies in the public sub-sector like the transport sector is characterised by traditional engineering, and objectivist management approaches. These authors argue this area is over-analysed while practice-based knowledge sharing, and transfer management needs to be studied more deeply, particularly within sub-Saharan African countries context where it is under-researched. It is hoped that findings from this study could provide new understandings of how to better facilitate knowledge sharing and transfer in the public sector through public management practice. Werr (2013) observed that applying knowledge sharing and transfer in its local context would hold the potential of developing interesting insight when it comes to knowledge management more generally.

Using public sector operators in South Africa as a study lens, this work seeks to answer the question; ‘what knowledge sharing, and transfer framework factors enhance public management in Sub-Saharan South Africa’. It is hoped that this study contributes new knowledge that will provide opportunity for future research
direction for academician and practitioners. This paper started with an introduction, while the remaining sections include literature review, followed by research methods, presenting the findings, discussion and conclusion.

2. Literature Review

2.1 Effective Public Management in Sub-Saharan Africa

Effective public management is dependent on knowledge as a critical resource, both private and non-profit sectors, including the government, to capitalise on this knowledge, must understand how knowledge like performance innovation is created and shared to be effective (Nonaka and Takeuchi, 1995). A large body of literature produced extensive research on KM frameworks and explanations of knowledge-sharing factors which facilitates knowledge transmission to understand public management practices (Heisig, 2019). These frameworks and factors paid much attention to developed country frameworks, they are over-investigated while Sub-Saharan Africa KM frameworks and their categories of influential success factors is under-investigated. In addition, public administration scholars have not provided clarity on what the term public management and the related concept of New Public Management (NPM) precisely mean. Scholars suggest the concepts deserve closer scrutiny to understand them (Mirit and Vigoda-Goda, 2017). Scholars, Christensen and Laegreid (2011a; 2011b) confirm that the public management literature and public sector organizations understand it to be about the role of political actors with dynamic internal and external relations operating in society (Christensen, Fimreite, and Lægreid 2007). Public sector organizations, Rainy (1990;2009) posits, have specific decision-making capacity because of factors such as political interventions, political constraints, and their diffuse objectives. This traditional definition emphasizes a rational approach to decision-making which is mostly applicable to stable public sector organisations. Though this earlier NPM definition, emphasized inter-organisational management, it did not capture the Sub-Saharan African intra-organisational dimensions, its diversity, institutional instability, and fragmented nature of its public sub-sector. Hood’s (1991, 1995) concept of New Public Governance (NPG) has now been incorporated into NPM. According to Osborne (2011), it is less fragmented, the new definition incorporates governance such as knowledge strategy which integrates intra-organisational management processes of public management. The combination of terms is more appropriate to capture the South African diverse nature of public management and its multiple state actors, it offers a lens to understand knowledge management factors which facilitate effective knowledge sharing and transfer in Sub-Saharan South Africa.

According to Nooshinfard and Nemati-Anaraki (2012), the literature has not developed a KM framework to understand the diverse factors which influence knowledge sharing and transfer. This gap is more pronounced in Sub-Saharan Africa, this paper intends to address this gap by exploring the knowledge sharing and transfer factors that enhance public management in Sub-Saharan South Africa, which may result in developing a knowledge management framework for organisations in South Africa which can serve as a roadmap of significant factors for African researchers and managers considering options to foster KM within the context of New Public Governance. In this study, the New Public Management (NPM) approach has been adopted for the GMA investigation, because the dynamism of the new economy of Sub-Saharan South Africa requires an integrated concept of public management so KM professionals should not only create knowledge but must transfer it quickly through knowledge sharing and transfer, to not lag their European counterparts. In addition, the NPM does not treat KM and its enabling factors as technocratic, it is about engaging employees in innovative ways, it’s a practice-based approach because it combines both tacit and explicit factors in contrast to technocratic objectivist knowledge practices that suggest knowledge sharing and transfer strategies (tactic and explicit) are binary.

NPM through the application of the practice-based approach is relevant to this study because it could offer this study a further lens to explore and potentially develop a KM framework based on performance innovation enablers to enhance the following public management Sub-Saharan Africa principles: Managerialism: the reduced size government; Decentralization: devolving government functions like the rail to the provincial state level; Efficiency: flexible structures to improve decision-making to benefit service recipients ; Modernised state: restructuring government delivery through a partnership with business.

These principles provide context so knowledge sharing and transfer framework for sub-Saharan South Africa, is derived from African public sector knowledge sharing and transfer practices which continue to modernize the public sector. Given the priority to implement knowledge transfer partnerships (KTPs) in South Africa, a requirement of the new economy, to direct services to outside firms (Weikart, 2001), the framework of
performance innovative factors, must capture soft internal and hard competitive factors which facilitate effective knowledge sharing and transfer.

2.2 KST in Public Sector Management

Scholars Leisink and Knies (2018), suggest definitions vary and there is no clarity on what the term public sector and its domain entail, pointing out that the term public sector does not exist. Bozeman (1988: 2004) supports this view, however, also posits common criteria that can be used to bring clarity to the concept, such as government ownership, sources of funding, and degrees of political control, used to distinguish public and private sector organizations. Scholars have argued public sub-sectors exist, and include sectors such as the transport sector, etc., which are regulated by legislation (Rainey, 2009). The focus of this study sheds light on this under-investigated area of the existing public sector literature on knowledge management, it will examine the antecedent and enabling framework factors which facilitate effective knowledge sharing and transfer in the public sector, in a transport management research setting. While contributions of scholars on public sector studies and its public sector transport management context are extensive in developed markets (Vigar, 2017; Glaser et al., 2019), Bharba (1994) the post-colonial theorist confirms the public sector and its various context setting are under-investigated in Africa, as models from developed countries are often mimicked in emerging markets. The field is preoccupied and focused on more technocratic Western objectivist engineering, centred on the means-end rationality approach to transport management (Vigar, 2017; Glaser et al., 2019). Practice-based approaches to public sector KST transport management is a knowledge gap, worth exploring. Moreover, Glaser et al., (2019) suggest that a shift from Western conventional objectivist transport management to a less technical and more subjective interactive approach is needed.

2.3 KM Theoretical Frameworks Brief Overview

Literature review show various frameworks that exist which explains and provides context for implementing knowledge sharing, and knowledge transfer (Nonaka and Takeuchi 1991; Heisig, 2009; Wang and Noe 2010; Rahman et al., 2018), and many others. These frameworks comprise elements that explains what knowledge sharing and knowledge transfer are. They also enable understanding how these concepts are implemented albeit from a western lens perspective. Of particularly interest is the Rahman postulations about Knowledge sharing presented in their model (see model in figure 1) which highlighted factors such as organisational culture, organisational leadership, organisational structure and organisational commitment with top management support and ICT support as a moderating and mediating factor if knowledge sharing in organisation is to be achieved.

Thus, this study seeks to employ this model as a lens to answer the question, ‘what knowledge sharing, and transfer framework factors enhance public management in Sub-Saharan South Africa’. As this study involve collection of subjective views from public sectors practitioners a qualitative study was used to enable answering the research question.

3. Research Methodology: Data Collection and Analysis

This study designed as qualitative research adopts an interpretivist philosophical approach, it supports subjective views and inductive approach (Saunders et al., 2016; Olekanma and Soomro, 2020; Olekanma, et al., 2022). The study adopted a single case study approach as focus was on South Africa public sector only. Single case study is relevant because it explored the phenomenon in depth in its natural context (Yin, 1984). The study seeks to understand ‘what KST framework factors enhance public management in Sub-Saharan South Africa’. Purposeful sampling was used to interview fifteen public sector practitioners, to answer the research question ‘what knowledge sharing, and transfer framework factors enhance public management in Sub-Saharan South Africa’. Participants were drawn from a single public sector organisation, consent was obtained from participants, before the commencement of this work. Data Collection

Semi-structured interviews questions were used to collect data from the 15 participants, each interview lasting 45-90 minutes (Creswell, 2013). The questions were open ended to allow the participants to describe their experiences participating in a knowledge sharing and transfer project. Where it is believed that questions were not fully answered prompts were used to elicit further information. Interviews for data collection for this study were stopped when saturation point were reached. The key inclusion criteria were that participants would have participated in successful and failed knowledge exchange projects. They would also have had a minimum of five years of working experience in the KT/KS public sector environment. Analysis of the demographics of
the participants show of the 15 people interviewed, 53% were male while 46% were female, however, analysis of qualifications revealed that 100% held graduate degrees. The reliability and validity of the data was enhanced because of the perspectives from multiple well-informed participants. All interviews were recorded and transcribed verbatim; all ethical considerations were duly observed (Saunders, 2019; Olekanma et al, 2022; Olekanma, 2023).

Data Analysis Tools

The study data collected through semi-structured in-depth interviews were initially analysed using Braun and Clarke’s (2006) thematic analysis method (TA) to obtain study participants themes. After initial text analysis, using Braun and Clarke’s (2006) thematic analysis method, this study diverged and adopted Trans Positional Cognition Approach (TPCA) stepwise analytical method (Olekanma, et al., 2022). The rationale for this diversion, was based on Braun and Clarke’s (2006) method which is considered too complex, with no clear guidelines on how to go about the researcher’s interpretation of the study participants’ themes (Todres and Holloway, 2010). Thus, TPCA analytical Stage 3, steps 11 and 12 (Olekanma, et al., 2022) were adopted and used to analyse study participants themes. The outcome of this divergence led to the emergence of 4 researchers’ themes namely Unique antecedent performance indicators, Human performance factors, Organisational performance factors, Continuous learning performance factors as key drivers of knowledge sharing and transfer in Sub Saharan South Africa public sector Step 13 were adopted and used to enable emergence of the essence of the study (Table 1 – Data display structure). The next section presents the study findings.

4. Findings

The four key findings shown under researchers’ interpretation column in Table 1 to be presented in this section that include Unique antecedent performance indicators, Human resources performance factors, Organisational performance factors, and Continuous learning performance factors were sent to 10 out of the 15 purposively selected participants for validation. All the 10 participants confirmed that the outcome of the analysis as showing in Table 1, represented their descriptions and experience delivering KST related projects in Sub Saharan South Africa public sector.

Table 1: Study Findings

<table>
<thead>
<tr>
<th>Study Participant themes</th>
<th>Researchers Interpretations</th>
<th>Essence of study</th>
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<tbody>
<tr>
<td>Knowledge Strategy (hard antecedent factor)</td>
<td>Unique antecedent performance factors</td>
<td>Enabling Factors of Knowledge Sharing and Transfer in Sub Saharan South African Public Sector for effective service delivery</td>
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<tr>
<td>Change Management (soft antecedent factor)</td>
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<td>Coupling Knowledge strategy and change management</td>
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<td>Trust</td>
<td>Human resources performance factors</td>
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<td>Individual intrinsic motivation</td>
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<td>Individual extrinsic motivation</td>
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<tr>
<td>Culture</td>
<td>Organisational performance factors</td>
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<td>Rewards and Incentives Systems</td>
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<td>Partnerships and networks</td>
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<td>Adult learning practices</td>
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<td>Knowledge integration</td>
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<tr>
<td>Continuous learning requires an open KST climate, performance measures and incentives</td>
<td>Continuous learning performance factors</td>
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<tr>
<td>Continuous learning requires a Knowledge Management unit with a new mandate and budget; integrated technology; interaction with industry</td>
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Source: Adaptation from TPCA stage 4 data display structure (Olekanma et al., 2022)

4.1 Theme 1: Unique Antecedent Performance Indicators

There was overwhelming agreement about unique performance antecedent indicators. The responses to interview questions highlighted the three unique factors, knowledge strategy, change management and coupling knowledge strategy and change management. The participants expressed the view that they were originating factors for effective KST implementation and performance management. All the participants
emphasized coupling of antecedent factors, that a new knowledge strategy happens when knowledge strategy and change management converge. Respondent 1 summed it up, “the knowledge strategy initiatives led to reducing distrust and helped all understand how the strategy as the first step for knowledge sharing and inter organisational transfer supports the organisation’s goals’ (M1). Participants 8, 11 and 1 explained the coupling of factors thus, ‘You need to bring the Knowledge strategy with change management for people to buy into it (M8). “We need to link knowledge strategy and change management because historically it showed one without the other do not facilitate knowledge sharing and transfer” (M11). “When organisation puts knowledge strategy and changes management together it allays fears” (M1)

4.2 Theme 2: Human Resources Performance Factors

While all participants expressed support for trust, views on motivation varied, the majority accepted extrinsic motivation as positive for knowledge exchange while a few resisted, suggesting intrinsic motivation was more desired. The people performance factor, accounted for the importance of all three human-related factors, namely trust, individual motivation, and organisational motivation. These people enablers were reported to be critical, after the antecedent factors. Respondent 13 explained why their trust was a people enabler. ‘Trust is a very effective enabler that encourage knowledge exchange, I think its primary because for any person to share knowledge it is a moment of great vulnerability, the environment must be one of trust (M13). Participants summed up intrinsic and extrinsic motivation; thus, participants 1 and 2 said, ‘Motivation is a personal factor for me, I am moved by the organisations goals to do it’ (M1); ‘In project knowledge sharing there is a need to be motivated through rewards and incentives, categories for rewards must be created to acknowledge those who knowledge share and transfer’ (M2).

4.3 Theme 3: Organisational Performance Factors

The process organisational enabling factors were aggregated by four issues culture; rewards and incentives; partnerships and networks; adult learning. Some of the participants did see rewards and incentives as negative drivers for knowledge transmission, however the majority considered it as positive for KST implementation and performance improvement. While participants placed the onus of successful organisational enablers on leadership, they all expressed the desire as a recurring theme for the adult education principles, not identified in the public sector KM literature reviewed. Culture was described as contingent and linked to trust. M12 said, ‘Culture is influenced by how people behave, it must be nurtured, it is related to trust. One of the participants summed up the importance of rewards and incentives and said, ‘Incentivising people through a rewards policy to knowledge sharing is important, it is the big question that comes up, not only in the studied organisation but in many organisations, we should consider it’ (M1). All the participants also referred to the growing list and varying types of networks and partnership. Participant M12 said, ‘Both social networks and partnerships are important, no one is more important than the other. Participants repeatedly indicated the importance of adult learning principles, participants M11 said ‘adult learning methods are positive as it improves the content shared and delivery method used, that works for us as adults.’ (M11).

4.4 Theme 4: Continuous Learning Performance Factors

This fourth theme, continuous learning was seen as the quintessential knowledge strategy and was a recurring theme raised by all participants. It was aggregated by (1) lessons learnt from knowledge exchange successes and (2) lessons learnt from knowledge exchange failures and difficulties. Participants M5 said, ‘We should continue linking people through MOUs or SLA’s, these agreements are important success factors (M5)’. A unique industry related knowledge transfer obstacle was linked to learnings from error, described by M7, “There appear a mismatch between what organisations want and what industry needs, experience reveal this mistake. Our organisation needs an industry repository of knowledge, the sector repository is not good enough.

5. Discussion

Results from the current empirical work identified as performance innovation enablers; Unique antecedent performance indicators, Human resources performance factors, Organisational performance factors, and Continuous learning performance factors as elements underpinning knowledge sharing and transfer for effective public management and performance innovation in the studied South African public sector organisation. Wang and Noe (2010), Knowledge sharing framework study also found that people and organisational factors, including motivation and culture, are interrelated factors which facilitate knowledge sharing and transfer albeit globally. The result of the current study confirms two out of the four enablers put forward by Wang and Noe (2010) study. To better explain the study findings, Rahman, et al., (2017, p.280), a
framework of knowledge sharing, adopted as theoretical study framework was employed. The theoretical framework, presented in Figure 1 below provides a western perspective lens with which to compare the current sub-Saharan South Africa work setting findings. Rahman et al (2017) framework identified organisational leadership, culture, structure; and organisational commitment factors as key enablers of knowledge sharing and transfer. It also shows the relationship between top management and organisational commitment as moderators and mediating factors during knowledge sharing and transfer activities in organisation.

Source: Rahman et al. (2018, p.280)

**Figure 1: Conceptual Framework of Knowledge Sharing for Business Organisation**

The implication is that the organisational commitment theory which mediates the knowledge sharing and transfer enablers suggests the willingness of social actors to participate in knowledge sharing and transfer is dependent on the Top management and ICT support, commitment factors. The current study findings identified factors not considered enablers of knowledge sharing and transfer by the Rahman et al., (2018) study framework. First, context, and purpose factors which are preconditions for knowledge sharing and transfer to happen identified in the current study are not included in the theoretical framework. These are the antecedent factors, (knowledge strategy, change management, and coupling knowledge strategy and change management) factors. Secondly, the theoretical framework elements lack reference and inclusion of human-related factors, which engenders trust and motivation, essential commitment factors to facilitate knowledge sharing and transfer between knowledge actors. It also does not include the implementation factor – continuous learning culture from success and failure. Despite several antecedent and enabling factors which facilitate knowledge sharing and transfer in the literature (Ipe, 2003; Wang and Noe, 2010) most studies such as Rahman et al. (2018, p.280) framework separated the leadership antecedent factor from organisational enablers in knowledge sharing and transfer models in the literature. Rahman et al., (2018) framework did not include change management as a bottom up antecedent, ignored the influence of people factors (trust and motivation) and implementation strategies (continuous learning) to boost antecedents and enablers. Rahman et al., (2018) framework considered the business sector, Bangladesh and its eastern zone factors. The Sub-Saharan region was not its focus. While the work is a contribution to the field, it creates a gap in knowledge, particularly for the sub-Saharan African practitioner still dependent on the Western models for guidance. The South African framework identified bottom antecedents, people and continuous learning factors, not identified in previous studies. To bridge this gap, this work proposes Sub-Saharan South African Public Sector Practitioners’ Knowledge Sharing and Transfer Model presented in Figure 2 below.
6. Conclusion

The research sought to answer the question; what knowledge sharing, and transfer framework factors enhance public management in Sub-Saharan South Africa? The study fully achieved its set aim and answered the research question, through exploring lived experiences of 15 public sector practitioner managers working in Sub-Saharan South African public sector. Data collected yielded four key themes namely, Unique antecedent performance indicators, Human resources performance factors, Organisational performance factors, and Continuous learning performance factors. These findings represented factors that enhance public management in Sub-Saharan South Africa, it does point to further study in this area. The study results extended the extant Rahman conceptual theoretical framework, which is a contribution to knowledge. The novel model also potentially contributes to practice as it will help practicing public sector managers understand the enabling factors which facilitate effective knowledge sharing and transfer, particularly in South Africa, which is a major economic powerhouse in Africa, only second to Nigeria. The limitation of this work is its sample size (15 participants) used in the study the findings may not be generalisable. While it makes a valid contribution to the field, it is also not a representative study across Sub-Saharan Africa. The study provides future studies opportunities for knowledge share and knowledge transfer academics, practitioners and researchers that include considering the studied organisation as a unit of analysis to compare the novel KST model within a different organisation in any South Africa public sector research setting.

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