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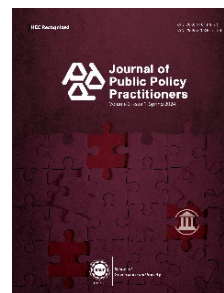|	
Title:	**Improving Leadership Decision-Making (LDM) through Knowledge Management (KM) in Public Sector (PS) of Pakistan**
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Improving Leadership Decision-Making (LDM) through Knowledge Management (KM) in Public Sector (PS) of Pakistan

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Abstract

The current study aimed to identify the existing leadership decision-making (LDM) in the public sector (PS) of Pakistan along with its role, barriers, constraints, and issues. Thereafter, the study attempted to examine the application of knowledge management (KM) principles and techniques for the augmentation of LDM to enhance the overall efficacy of PS. The study was qualitative in nature and comprised rigorous literature review and examination of archival records of PS in Pakistan. Additionally, it also analyzed the personal insights and reflections from the PS of Pakistan. The findings revealed that the field is in embryonic stage and requires extensive research in qualitative as well as quantitative domain. There is even a lack of basic awareness pertaining to KM and its subfields encompassing tacit knowledge, explicit knowledge, and phronesis. However, the growth of private sector and the role of key decisions taken by the leadership in shaping their sustainable success is a prime lesson to be learnt by the PS in terms of adoption of KM for better decision-making (DM). Moreover, the study also focused on the development of a model by modifying an existing DM organizational model presented in 2017. However, generalizability could be an issue, since this study was conducted based on the personal reflections of the researcher. Additionally, empirical validation, quantitative, longitudinal, cross-sectional, and case study researches may be conducted to evaluate the implications of the study. PS is considered as a non-profit organizational setup. There is a wide gap between public and private sector due to the difference in the role played by both. However, a number of practices can be adopted interchangeably to improve and enhance the existing capabilities which in case of PS include governance, compliance, and citizen satisfaction. The current study provided theoretical insights into how KM models, themes, and practices can be applied for the improvement of DM in the PS. The model presented was novel and an addition to the existing body of knowledge.

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Introduction

Leadership decision-making (LDM) is the parameter which defines the success and failure of an organization. The successful organizations have leaders who are capable of taking key decisions and disseminating synergies with confidence. Whereas, the unsuccessful organizations lack poor leadership decisionmaking (DM), especially at key or strategic moments. When it comes to the public sector (PS), the importance and role increases manifold due to the multifaceted results generated by the decisions which impact the private sector as well. PS is not only complex, however, also dynamic in nature. To add to the complexity, there are no personal incentives and growth in terms of monetary benefits for people. This results in a general carefree attitude or doing just the bare minimum to keep one floating, which, in turn, effects the overall growth of the sector. Moreover, the rigid processes and stereotypical working under the given parameters result in a compliance-based mindset instead of reflecting on innovative solutions and implementing out of box ideas to reform policies, programs, and services to impact the citizens, organizations, industries, and societies. Besides, in order to gain public trust, PS leaders need to take effective, timely, and cognizant decisions to achieve the strategic organizational goals. Additionally, they must also focus on efficacious resource management to address the dynamic challenges of the general population. Although, PS is headed by public representatives in the form of ministers, however, they rely heavily on the top leadership of the PS organization. The leadership either comprises bureaucrats or technocrats in most of the cases. Hence, it may be assumed that both, public policy and DM are shaped by either the bureaucrats or technocrats which is further revised, analyzed, and approved by the elected public office bearers.

This DM is wizened with copious intricacies including involvement of stakeholders with conflicting or diverse interests and convoluted areas. Generally, PS operates in an authoritarian leadership style. The control and communication flow is top down. The entire DM revolves around the bureaucratic traditional approach with subtle differences in case of technocrats heading the organizations in leadership positions. Bringing change to such type of work environment is a hard nut to crack and requires

a dynamic approach focused on highly proficient LDM (Hendryadi et al., 2019; Park et al., 2021).

Knowledge holds an indispensable value in PS (Blackman et al. 2013) which is often neglected. The knowledge in PS is considered explicit only and the same is further restricted to organization only in terms of rules, regulations, and policies. By means of these policies, rules, and regulations, PS organizations shape their workforce and managers' working mechanisms (Management Study Guide, 2013). Knowledge management (KM) has been presented by Nonaka and Takeuchi (1995), as an alternative organizational management theory. It is a novel approach and has challenged the centuries old economic as well as resource-based view of organizational management. The advancement, utilization, results, and application of KM in all the fields and sectors is remarkable. It may be considered as a dynamic tool or a lever to supplement LDM in the PS. The whole concept revolves around the methodological process of generation, acquisition, collection, creation, storage or preservation through codification. Moreover, the dissemination (Probst et al., 2000) as well as application of knowledge also play a vital role inside the organization and later on across the value chain. Knowledge is used as a key asset in the whole process which shapes the success of the systems designed.

The relationship between the two, that is, LDM and KM in the arena of PS needs to be explored in a detailed manner. To address the issue, the two concepts need to be understood along with their relationship and interdependency. The accompanying challenges, especially the cultural diversity or the geographical location of the organization is yet another bone of contention. This is because one policy or strategy which is applicable and successful in the first world, that is, USA or Europe might be totally incompatible in the third world. This generates therequirement of detailed qualitative and quantitative studies across different settings to determine and validate the applicability of a model in different settings. The challenges faced by PS leaders need to be explored which are again unique in different organizational and regional settings. The multiple stakeholder view gives a further unique dimension to each case and makes it difficult to adopt necessary modifications or tailoring. The third world countries are further plagued by a unique problem of extremely meagre resources. The competence level of individuals including top management (leadership), middle tier management, lower tier management, and the will to change or

accept the efficacy of a leaders' proposed model are sometimes the key challenges faced by the PS leaders.

To apply the KM principles and practices in the PS for better LDM, a conceptual framework needs to be proposed, developed, designed, modified or adopted from an existing model or theory. The same was developed in the current study in the specific milieu of Pakistani PS. There are a number of reasons for selecting the PS of Pakistan. The PS of Pakistan is already at the verge of collapse and is facing the problem of extremely scarce resources.. The current study encompassed different theories and applicable KM practices across the globe, however, the whole process of KM in the LDM focused on the PS of the selected country.

This application of KM principles and practices is not limited to enhanced information access to the expertise and best practices of public and private sector involving diversified sectors within the country or abroad. The key examples in this regard may be taken from the education and health sectors exisiting within the country. At present, organizations belonging to private sector of both fields are out-performing the PS by a wide margin. The same can be rectified and addressed by applying KM techniques and tools. Similarly, successful models can be analyzed and explored in other fields and organizations as well. However, the implementation of the same is considerably challenging than conceiving the idea or development of a model due to a number of constraints and barriers. For instance, there are legal ramifications, cultural barriers, technological constraints, and resistance to be changed from the leadership itself (Mora & Ticlau, 2012). The dynamic and capable leaders would not only accept, rather promote the culture of KM and would also utilize the same. Whereas, there is plenteous deadwood at the top level which would resist any such initiative by rendering them useless in the future. However, these challenges may also be addressed by applying the same KM principles and practices through single loop, double loop or triple loop learning.

Literature Review

Kassa and Ning (2023), indicated the massive potential of PS in terms of improving the citizens' lives through better public service. The research gap was also specified along with this identification in terms of KM and its application to tap this potential and bridge the gap to determine an overall good governance culture in PS. Knowledge comprises contextual

knowledge, past experiences, and tacit knowledge within the professional domain (Davenport & Prusak, 1998). Hall and Andriani (2003) added the organizational perspective to the existing knowledge view by adding certain dimensions. These dimensions include organizational culture, skills, intuition, and explicit knowledge which, in turn, further shapes the human behavior or LDM.

Duffy (2000), considered KM as the process of utilizing tacit knowledge to gain an overall competitive advantage for the organization. Du Plessis (2007), on the other end, considered KM as a detailed method for organizational knowledge sources' optimization. A profusion of recent studies conducted within the last decade have explored the role of KM for better organizational outputs whether, financial or performance through innovation, quality improvement, and creativity (Adams & Graham, 2017; Brix, 2017; Vila et al., 2015). There is enough empirical evidence to ascertain that KM is applicable to both public as well as private sector organizations (Chong et al. 2011). Salleh et al. (2012), validated and endorsed the cognizance of the increasing role of KM in both the PS and private sector. There is a major research gap in the field of PS KM and the same has been highlighted by numerous authors (Pee & Kankanhalli 2015; Shamim et al., 2017). Therefore, the current study attempted to fill this gap which was its major rationale. The PS can only be reformed through a top down approach as the hierarchy of the sector is not only rigid, however, complex, multifaceted, and traditional in nature with a typical bureaucratic and/or technocratic in nature.

Leadership is not only complex, however, also multifaceted and laced with numerous issues and problems (Antonakis & Day, 2018; Bass & Stogdill, 1990; Bennis, 1959; Gardner et al., 2020). A number of skills are required to be a successful leader. These skills can be clubbed together in the comb-shaped skill set model. Ratcliffe and Ratcliffe (2015), defined leadership in terms of leaders preparing their workers, managers, and team in such a way that they embrace change happily instead of resisting it. The role of leadership in an organization in terms of reforms and thereafter overall organizational transformation in the PS has been endorsed by a number of researchers (Busari et al., 2020; Elmasry & Bakri, 2019; Hoai et al., 2022; Molines et al., 2020; Pyle & Cangemi, 2019). Similarly, Tuan (2017) accentuated the positive relationship of ambidextrous leadership style with the higher rate of efficiency in the PS organization. Janovac et al.

(2023), affirmed the positive association of leadership effectiveness on the quality of services provided to the citizens as well as different stakeholders involved in the process. The sample selected from the HR of Serbian PS was targeted in the respective study. Hickman and Akdere (2018) stressed upon the contextual nature of leadership and its decisive role in bringing a positive transformation in the organizational performance. Despite the number of researches mentioned above, Janovac et al. (2023), still mentioned a gap allied with the evaluation of factors effecting the leadership in the reform implementation in PS. However, the same is in line with the observations as the gap was identified in terms of the evaluation of factors and not the inter-relationship. Janovac et al. (2023), focused on the strategic objectives of the PS. The intricacies of LDM were also highlighted in terms of its uncertainty, inconspicuous information, and available choices. The application of Multi Criteria Decision-Making (MCDM) method was recommended to address the complexity of these issues. Moreover, MCDM method was also suggested to determine the factors applicable to LDM style on case-to-case basis.

Harren (1979), classified the DM styles into intuitive and rational only. The differences between two styles were proposed based on the gathered information and its evaluation. However, behind each rationale of DM there is an intuition and behind each intuitive DM there is a rationale. Both cannot be segregated or demarked in clear black and white terms. Afterwards, Behling et al. (1980), linked the cognitive style with these existing intuitive and rational DM styles. Thereafter, Scott and Bruce (1995), defined DM style quite differently. According to them, DM style is a habitual, and learned response developed and learnt after repeated experience of addressing different set of problems and issues.

Abubakar et al. (2017), discussed the pivotal role of KM in determining the DM style in the organizational setup to improve the organizational performance. The study included components, such as Human Resource (HR), technology, culture, and organizational structure as KM enablers. The study concluded that organizational performance is based on tangibles, such as financial growth and profitability along with intangibles, for instance organizational learning. The strategic DM is helpful in utilizing the enablers and obtaining the desired optimized organizational output. In other words, LDM is the lever of change to achieve strategic organizational goals while using KM enablers as tools.

Kassa and Ning (2023) explored the involvement of KM in the PS through the application of Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) method. The research further bifurcated the KM in three sub streams based on their application and requirement in the PS. These three necessities comprises organizational improvement, citizen satisfaction, and collaborative innovation management. Additionally, the research further elaborated the contribution of KM in organizational transformation through improvement in production, increasing efficiency of the processes, and reducing the operational and allied costs. This would result in an achievement of the overall organizational objectives through utilization of KM as a tool or agent of change. The study also highlighted notable barriers comprising limited resources, bureaucratic structures, staff resistance, and rigid organizational structures, in the application of KM as a strategic tool. These barriers are considered as obstacles which need to be dealt with through vibrant leadership skills while using digital tools to address the social, economic, and ecological issues. The inter-relationship of KM and PS DM has been shown through public participation and knowledge intensive workforce, thus creating PS organizations based on knowledge as a key resource.

Ali et al. (2022), conducted study on transformational leadership style and its impact on KM effectiveness in the PS of Pakistan. Their studies were restricted to educational institutes only, thus leaving behind a huge gap in terms of generalizability. moreover, their research was based on the relationship between KM, organizational culture, and leadership. There are a number of other factors that can be included in this intricate relationship, some of which have been identified and mentioned in the later sections of the current study. The prominent role of leadership was also stressed upon in terms of engaging the teams and the entire organization in the DM process. The role of leadership is to motivate, encourage, and inspire the employees for developing a conducive environment by means of innovation and knowledge sharing in order to foster KM-based organizational culture. In line with this, it was also established that organizational culture, based on openness, trust, and creativity has a stout association with KM. The study emphasized organizational KM culture for knowledge transfer at individual, departmental, and group levels. Additionally, the indispensability of the transformational leadership was also proposed for the successful application of KM in PS organizations. KM shapes the LDM and the circle repeats, resulting in organizational success as shown in Figure 1 below.

Figure 1

Relationship of Leadership Decision-Making (LDM) and Knowledge Management (KM) for Organizational Success
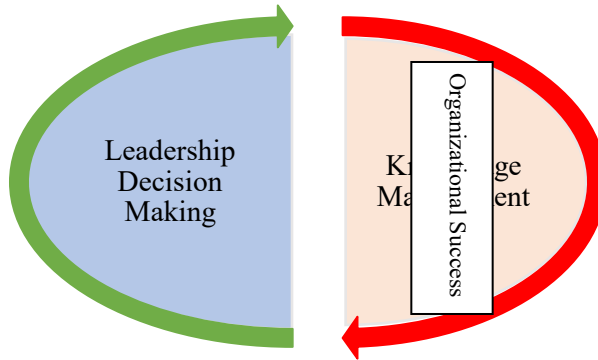
Note. Prepared by Author from the Discussion and Analysis of Ali et al. (2022)

Methodology

The current study was based on qualitative research methodology. This method was selected due to the study's different and unique aspects which are not available in an integrated form in past studies. Moreover, another important aspect is the availability of low number of conceptual frameworks, theoretical foundations, and/or empirical research in the field of LDM through KM in the PS. Moreover, this field is considered as novel in comparison with traditional management field due to the inception and thriving work done by Nonaka (1994). Separate researches on leadership, DM, KM, PS, and interrelationship of KM, PS, and DM are available, however, unified view is lagging (Martinsons et al., 2017). The first major dissection lies in the type of organizations at sector level. All the theories, models, principles, and procedures cannot be applied in PS and private sector without grounding the same in theory and practice. The second particularity is the selection of DM in PS only, and the same is further narrowed to LDM instead of DM at all levels of the organization. The current study attempted to generate a refined model, based on an existing model, which would result in a new conceptual framework.

Leadership Characteristics for Effective Decision-Making (DM)

Ejimabo ([2015](#)), highlighted different factors involved in the DM process. These factors include situation, information availability, leadership style, organizational culture, IT tools, leadership proficiencies, that is, experience based on tacit knowledge, education, and cognitive bias as significant factors influencing LDM. Seiler and Pfister ([2009](#)), underscored five major factors effecting and impelling the leadership demeanor. These factors involve distinct competency including professional and technical knowledge; strategic capabilities including DM, KM, and problem solving; personal deftness including enthusiasm and stress resistance, cultural tolerance and social quotient (SQ) including empathy, tolerance, and communication skills.

Janovac et al. ([2023](#)), highlighted the prominence of transformation capacity as the most critical leadership skill required for effective DM to disseminate synergies namely creativity, innovation, and flexibility to address the citizens' requirements. Rafique and Anwar ([2019](#)), took the organizational standpoint. An important aspect of their study is taking the context of Pakistan. This is because it depicts the most relevant organizational culture for analysis. Their study further focused on organizational elements, such as culture, individual knowledge sharing demeanor, and leadership encouragement. The transformational ability of leadership is cogent in bringing about a positive change in the organization and enables the internal stakeholders, that is, employees to embrace and implement the reforms efficaciously. The same factors can also be aligned with different personal traits based on different quotients and exhibiting broader characteristics required for sound, effective, and optimal LDM namely Intelligence Quotient (IQ), Emotional Quotient (EQ), Adversity Quotient (AQ), Spiritual Quotient (SpQ), Creative Quotient (CQ), and Genius Quotient (GQ) (Mattiske, [2022](#)).

However, Social Quotient (SQ) has not been mentioned and highlighted which is an essential aspect of leadership characteristics. Darrenkbourke ([2022](#)), also described Body Quotient (BQ) separately. BQ can be considered as an intuitive type of leadership style which focuses on gut feeling and body reaction. Constancon ([2021](#)), included ten quotients necessary for leadership. These quotients have been segregated into five hard and five soft skills. Intelligence Quotient (IQ), Resilience Quotient (RQ), Appetite Quotient (ApQ), Digital Capacity (DQ), and Strategic Mind

(SQ) have been emphasized as hard skills. Whereas, soft skills have been identified as Emotional Quotient (EQ), Moral Intelligence (MQ), Political Intelligence (PQ), Cultural Intelligence (CQ), and Transformational Capacity (TQ). When leadership qualities and characteristics are based on knowledge as a prime resource, KM Quotient (KMQ) and Professional Quotient (PrQ) would be on top of the skillset pyramid. Figure 2 represents the leadership characteristics keeping in view the requirement for an effective leadership management. The fields have been kept open as specialties instead of defining them, so that the same may be filled in by the diverse organizations of the PS as per their requirement. However, the general conceptual framework would remain the same as mentioned in this Figure. This comb-shaped leadership skills are further considered as one of the enablers in Figure 4.

Figure 2

Comb-Shaped Leadership Skills Required for Effective Decision-Making (DM)
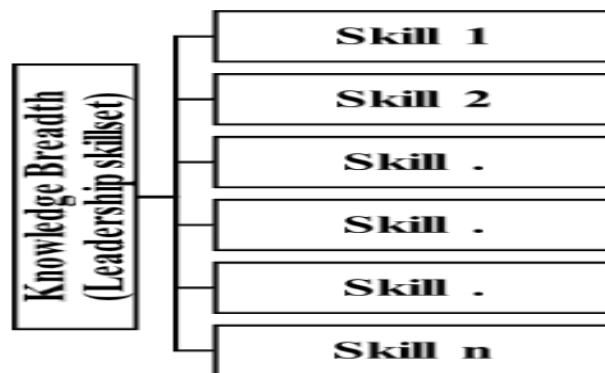
Best International Practices in Leadership Decision-Making (LDM) Improvements through Knowledge Management (KM)

A number of best practices exist across different countries and cultures worldwide involving the application of KM to improve the LDM in the PS. This demonstrates that the concept is not only theoretically applicable and successful, however, it has practically proven itself prolific. There can be a difference of opinion on the way of adoption or the design of processes involved. However, not a single study has been found indicating the failure or lack of applicability of KM in any organization. This validates the strength and simplicity of the model of KM. The first notable example of

the successful implementation of LDM is from the United States of America (USA). The PS agency that implemented KM to improve the decision-making was Federal Emergency Management Agency (FEMA) (Marino, 2020). It implemented a KM model with the name of Lessons Learned Information Sharing (LLIS) platform. It is a consolidated storage house of capturing, retaining, and disseminating the important lessons learned from various significant issues, drills, and incidents that took place. Moreover, it also involves either some value addition or success as well as delinquency from the adoption of existing practices. The process results in better professional DM and policy formulation or operational guidelines through better informed decisions duly reinforced with anticipated pitfalls and corrective measures. The second successful example of PS KM application for improved LDM is from the Singapore Civil Service. It is a more elaborated model than FEMA, as it encapsulates the whole country's civil service instead of a single department or limited scope. Singapore has designed, developed, and deployed a comprehensive KM framework with the name of Singapore Government Intranet (SGI) (Chen, 1999).

It is an integrated platform and is accessible to all the government agencies, thereby providing them a unique opportunity and access to knowledge and expertise of the individuals working within any PS organization. This may result in healthy collaborations, enriched experience sharing, and diverse discussion forums. Thereby, it may lead towards the development of a broad-spectrum learning culture based on centralized repository of policies, guidelines, and practices, which, in turn, would amplify the LDM capabilities of the whole PS. Moreover, another notable example is from the United Kingdom (UK). In UK, National Health Service (NHS) has taken the initiative of NHS Institute for Innovation and Improvement for the execution of KM program (Nicolini et al., 2008). This program focuses on collaborative networks and knowledge sharing platforms to foster an ongoing learning culture for innovation and sharing of best practices across the entire healthcare system of the country. The success of this system is based on key indicators namely better patient care and increased operational efficiency throughout the healthcare system. Similarly, Australian Taxation Office (ATO) has implemented a KM system namely ATO Wiki (Duweh, 2013). It is also a success story and is developed on the principle of shared platform for information exchange, procedures and document sharing, and knowledge sharing by the employees. This may result in improved DM and, in turn, better tax

administration through the availability of latest information, collaboration, and well-informed decisions. The key success indicators of the system may be considered as increased operational efficiency and superior taxpayer services. All these KM initiatives from the PS of different cultures and regions demonstrate that LDM is not only enhanced, however, drives the sector in terms of innovation and development of a continuous learning culture.

Analysis and Discussion

KM plays a critical role in LDM through pitching in numerous contributions. The foremost among these contributions is the access to relevant information, data and/or knowledge sources whether tacit or explicit, which, in turn, enables the leaders to take well-informed decisions. The systematic as well as inter-organizational or within the organization knowledge (information) sources helps in effective DM. Moreover, another important aspect is phronesis based on years of learning from the past experiences. Besides, leaders may access the archival records to explore the best practices or initiatives. Similarly, leaders may also review audit reports and reasons of failure to ensure non-recurrence of mistakes which, in turn, would enhance their LDM capacity. KM may also develop better problem-solving capabilities among the leaders.

The same capabilities subsequently facilitate to conduct a comprehensive analysis of multidimensional problems and explore possible alternatives, thereby enhancing the overall LDM. Furthermore, KM promotes a culture of collaboration among different employees, cross functional teams, and departments instead of working in silos. Leaders create and patronize an environment which, in turn, results in collective wisdom and better LDM. Effective KM techniques and practices lead towards empowered employees equipped with the right information readily available to participate actively in the DM process of the organization. Besides, leaders should accentuate continuous professional development opportunities for the employees through on going learning, refreshers, acquiring cutting-edge skillset, regular trainings, workshops, and conferences for uninterrupted knowledge creation and thereafter KM culture. Moreover, another means to stimulate knowledge-based resource view is to facilitate informal as well as formal knowledge sharing platforms for employees. Agility and adaptability hold an imperious position in the organizational success. This includes awareness of the emerging industrial

developments, advancements, innovations as well as market trends and contemporary technology. These insights ensure highly effective and precise LDM to generate a competitive advantage in addition to organizational success. All successful leaders lead by setting an example. In order to harness the potential of KM in an organization, leaders must exhibit an unwavering commitment towards KM as the most significant policy. Moreover, the same philosophy ought to be reinforced repeatedly so that the whole organization would remain committed to the KM framework. Lastly, the role of strategic planning is yet to be accounted for in the overall organizational success. KM assures the availability of a holistic picture of different and vibrant aspects of organization consisting of resources (resource based view), knowledge (knowledge based view), organizational capacity, organizational capabilities, and market dynamics. This may result in vital organizational decisions by the top management (leadership) through development of robust, resilient, and sustainable strategic plans.

After establishing the role of KM in DM and its relationship with leadership in the PS, the next stage is to investigate the anticipated challenges, constraints, and barriers to realize importance of KM as a LDM strategy in the PS. One of the major constraint is resistance and in certain cases centuries' old traditional organizational setup which has shaped the organizational culture. PS's rigid hierarchy and bureaucratic top down approach with a strictly developed compliance-based setup leaves little room for a flourishing KM culture. The sector in fact discourages knowledge sharing and collaboration in an implicit manner without any written directives due to lack of awareness and non-provision of incentives. Employees have genuine reservations regarding their job security and a culture of exploiting good workers and managers in terms of more work, whereas the workers declared deadwood are often assigned insignificant or trivial jobs. This lesser workload translates into ample time for deadwood employees for their personal errands in addition to circumventing the responsibilities and obtain promotions by having a clean record due to inconsequential work. Conversely, the ones who work hard remain at disadvantage due to the nature of assignments and their minor slipups are penalized. The whole organizational work culture, thus turns out to be toxic for key knowledge assets. Subsequently, there is a perpetual loss of the knowledge capital. The lack of leadership support to knowledge capital is another major constraint which further acts as a catalyst to this hazardous work environment, thus proving to be the last nail in the coffin of the

organization. This critical barrier can be addressed by inculcating the concept of retention of knowledge capital at all costs to leadership courses or trainings. Another key constraint in PS is the lack of availability of Information Technology (IT) tools including hardware and software. In most of the PS organizations of third world countries, the ERP systems are not yet deployed. Similarly, the digitalization or Industry 4.0 are far from reality. There are same results in slow manual working, non-availability of key data, or information. Hence, there is no application of data analytics or advanced quantitative or qualitative analysis to provide insights for better LDM. Additionally, another concern in the PS is the sensitivity, secrecy, and confidentiality of the organizational information, data, and knowledge. A major challenge faced by PS organizations is limited availability of funds and budget shortages. This resource constraint is a major constraint in deploying KM model. This is because the Return on Investment (ROI) and benefits of employing KM are long-term.

The final phase after overcoming all the above mentioned obstacles and deployment of KM in PS is to evaluate and measure the impact, effectiveness, and success of KM in improving the LDM of PS organizations. Considerable empirical researches have established the positive relationship between KM and PS LDM, however, there is no clear evaluation criteria and metrics to measure the impact and role of the same. The primary feedback for a newly developed and deployed KM system is proposed to be qualitative in nature. Delphi method, jury of experts, open ended interviews, and focus groups consisting of stakeholders and DM involved in the PS are the primary sources of obtaining this qualitative feedback. The next stage is the development of case studies for both the success stories as well as the failures. It may develop more insights on geographical and organizational nature for future implementation, revision, and modification of KM system deployed. The measurement of DM time is another matrix to measure the improvement in DM. Lesser time on each subsequent iteration of DM means higher success rate of the implemented KM model. Decision quality based on accuracy, configuration with respect to organizational goals or positive outcomes is another tool to measure the efficacy of KM model. A notable tool used in PS project management is Result Based Monitoring (RBM) which measures the actual outputs or results of projects and compares it with the intended output. The same tool can be utilized for KM model evaluation as well. The adoption and utilization rate for DM by leaders indicate their level of acceptability of KM

systems and tools. This can be measured in terms of frequency and extent of utilization of the deployed KM systems and tools. Another basic measure of successful systems is the level of employee satisfaction with the overall LDM process before and after the inception of KM systems in the organization. In addition to the methods proposed above, there are a number of more techniques and tools to measure the effectiveness of KM for better LDM in the PS. This may be due to the premise that no two organizations are alike and cultural differences also play a vital role in designing an appropriate evaluation method.

Existing and Proposed Conceptual Framework

Abubakar et al. (2017), has proposed a conceptual framework for DM in organizations as shown in Figure 1. As per the proposed model, four KM enablers have been defined namely t-shaped skills, collaboration, IT support, and learning. These enablers ensure knowledge creation through KM which transforms these tangible and intangible or tacit skills into explicit skills. Thereafter, two types of DM styles have been mentioned, for instance rational DM style and intuitive DM style. The model indicates rational DM before intuitive DM. At the final stage, organizational output is obtained in the form of organizational performance. The reason of selecting this model is that it seems closely related to LDM improvement through the application of KM in PS. However, modifications are required to refine and tailor the model for the best fit as per necessity.

Figure 3

Existing Conceptual Framework
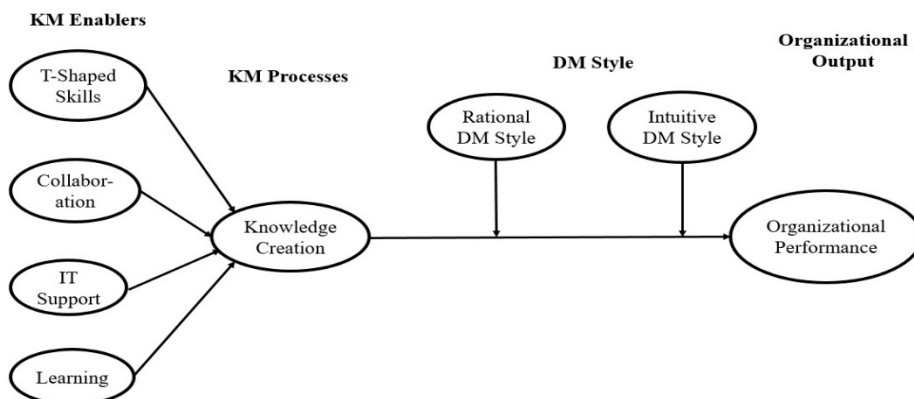
Note. Taken from Abubakar et al. (2017)

The modified proposed model has been represented in Figure 4. The number of KM enablers have increased to seven due to multifaceted aspects and challenges faced by the leadership. The KM enablers for this model include leadership support, comb-shaped skills, cross functional collaboration, knowledge sharing platforms, IT support, learning, and organizational culture. Furthermore, the system is sector-based, that is, PS instead of single organization. Outputs are also translated sector wise as PS output instead of organizational output. All PS organizations are based on collective wisdom instead of organizational view. The LDM style is based on information obtained from diverse PS organizations. It is based on three types of styles. These styles include tacit knowledge-based decision-making which is the first style of DM, rational DM style which is the second style and augments the first style. The last and final style is KM-based Phronesis LDM style incorporating the previous two styles and integrating it with the collective sector knowledge.

Figure 4

Proposed Conceptual Framework
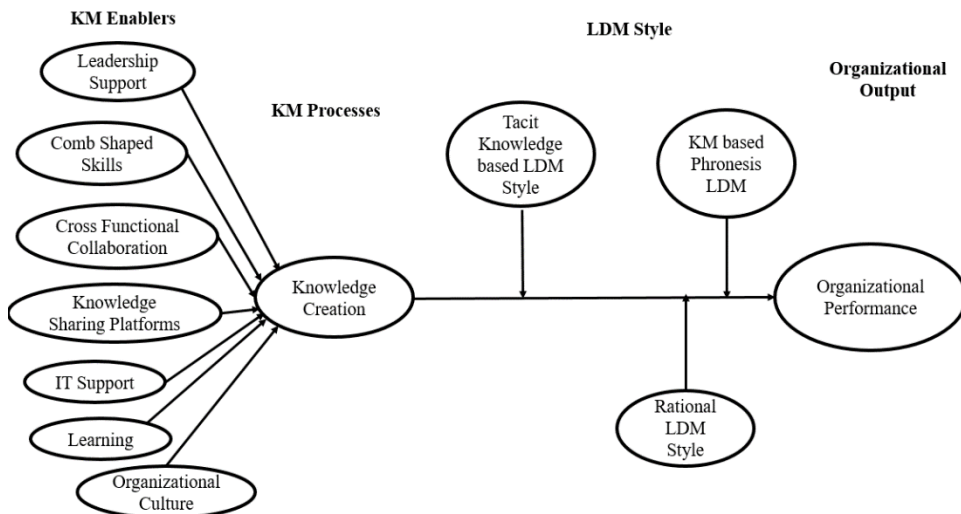
Note. Prepared by the Author Modifying and Redefining from Abubakar et al. (2017)

Conclusion

The current study attempted to explore the immense yet untapped potential of utilization and employability in KM tools, techniques, and

models to improve LDM. The findings underlined numerous aspects of LDM and its positive relationship with KM in the specific milieu of KM. The possible constraints, pitfalls, expected resistance, challenges, and opportunities have also been deliberated at length which generated some new themes and models. The discussion section and the comb-shaped skill requirement along with the details of different kinds of skills in the form of different personal quotients were the key features of the study. The model presented to depict the knowledge enablers, distinct leadership decision models and their interdependency, the role of KM, and thereafter producing fruitful organizational output and organization success is yet another novel dimension. A roadmap may also be developed specifically for PS from the enriched discussion and analysis section clubbed with the recommendations presented in the study. Collaboration and knowledge sharing cultures, along with evidence-based decision-making with industry, academia, private and PS working in unison for the overall knowledge-based economy of the nation would also translate into citizen centric governance and improved service delivery which in turn ensures an overall positive national outlook. No system can succeed without employing an appropriate evaluation system or criteria and the same principle applies to KM systems playing a vital role in LDM and subsequently organizational success. The evaluation system presented in the study is quite generalized to make it applicable in diverse settings around the globe. The establishment of an appropriate criteria was a major challenge and the presented details on said account may be considered for further employability. In a nutshell, KM in the PS may transform the organizations for a positive change through utilization of key knowledge assets, better and improved LDM, enhanced pubic service delivery, and overall efficacy or success of the organization.

Recommendations

A number of strategies and tools have been mentioned and discussed for the employment of KM to improve LDM. A novel framework has also been presented in Figure 4 of the current study. The following recommendations are put forth:

- Leaders should develop a comprehensive KM strategy for PS which encourages knowledge sharing culture and values key knowledge resources at the highest level considering them as knowledge capital. Rewarding appropriately, providing conducive environment, and

developing formal as well as informal knowledge sharing platforms have been proposed.

- Knowledge should be captured, codified, and translated into explicit knowledge. Afterwards, the same explicit knowledge may be classified and made accessible to different levels of management and employees as per requirement and authorization. Each success or failure needs to be documented, catalogued, and placed in digital repository for future record and reference.

- Leadership patronization and development as well as fostering a continuous learning environment may be different in terms of employee satisfaction and retention. Regular feedback system and evaluation of the employed KM system would ensure the organizational movement in the right direction.

- Leaders (top management) may promote collaboration and networking with other PS organizations, private sector organizations, industry, and academia. This may result in an updated and integrated KM approach which would be translated into an evolving KM system.

Research Limitations and Future Research Areas

The current study was designed on the premise of traditional models of leadership. This is because PS works in a typical hierarchical manner with a top down approach in which top leadership takes decisions and synergies flow from top to bottom. On the other hand, updated leadership view is based on 360 degrees' leadership. Furthermore, only theoretical framework model was proposed. The detailed literature review and discussion of various KM and LDM sections were based on global perspectives, hence the model was developed in the global context. Moreover, empirical validation, qualitative, quantitative, longitudinal, cross-sectional, and case studies may also be conducted to evaluate the implications of the study. Furthermore, different leadership styles, for instance, transformational leadership, servant leadership, ethical leadership, and inclusive leadership may also be explored in terms of their discrete relationship with KM.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

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