

Article

# Icebergs of Expertise-Based Leadership: The Role of Expert Leaders in Public Administration

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**Abstract:** There is a pressing need for public administration leaders to exhibit expertise-based intuitive leadership traits for developing countries to respond to sustainability challenges. While the importance of explicit and tacit knowledge to underpin expertise-based intuitive decision-making is known, public service leaders of developing countries can lack these traits. It is necessary to explore the reasons for leadership skills gaps in order to define remedial actions, such as better executive development training. This study conducts 28 in-depth interviews with public administration leaders, managers, and executive training professionals in Pakistan to address the challenge of how to build expertise-based intuitive leadership traits in public administration leaders. The main findings highlight deficiencies in domain-specific knowledge and soft skills. Deficits in the formal training of leaders and the negative contribution of cultural preconditions both result in explicit and tacit knowledge gaps that undermine expertise-based intuitive decision-making. An “iceberg of expertise-based leadership” model is conceptualized, extending on previous models, to describe the intangible role that explicit and tacit knowledge play in the visible expression of leadership skills. The relevance of this model for the success of public sector-led initiatives for sustainable development is highlighted.

**Keywords:** leadership skills; decision-making; leadership behavior; intuitive leadership; expertise-based decision-making; public administration; executive development training

## 1. Introduction

South Asian countries represent almost every fifth person in the world, and the developmental challenges for the governments and citizens of these nations are enormous. Public sector leaders of developing countries are confronted with the governmental challenges of openness and accountability; access to public services and information; expansive bureaucracies; administrative patrimonialism; and public corruption [1]. Considering these public sector reform challenges, it is difficult for developing countries of South Asia to achieve sustainability targets defined in the Sustainable Development Goals (SDGs) [2]. The emergence of strong public institutions is a pre-requisite to overcome the challenges for sustainable development. While structural and procedural reforms of New Public Management have been undertaken in developing countries, their success and the achievement of SDGs through strong institutions is contingent on capacity building of public sector leaders and administrators [3]. Governance and leadership failures in Pakistan continue to be reported as underlying causes for the failure of sustainable development initiatives [4,5]. Public sector reforms in South Asia require

structural reform combined with new requisite human skills and knowledge. Administrative and technical capacity building may require improved tacit knowledge through formal training, mobilized with implicit knowledge gained through years of workplace expertise [6]. Such capacity building would assist the emergence of expert leaders capable of expertise-based intuitive decision-making to address sustainability challenges.

In developing countries, a lack of technical expertise can generate a potential disconnect between the required knowledge of organizational leaders and their decision-making processes, meaning that their decisions may not be appropriately informed by expertise. It has been reported that among the public sector leadership of developing countries, a lack of technical expertise can inhibit the ability of leaders to make effective and innovative decisions [7]. Despite this lack of expertise, public sector leaders still have the responsibility to set organizational direction and lead organizational decision-making. The Human Capital Project of the World Bank Group is one example of the centrality of human capital development to achieving the aims of the SDGs. The importance of human capacity development among public administrators acknowledges the critical role of the public sector for driving national agendas for poverty alleviation and sustainability. In South Asian countries where public sector leaders enjoy esteem and have social influence because of their public positions and authority [8], developing their capacities as expert leaders is even more critical. Thus, the emergence of sustainable public sector administration in developing countries demands that public sector leaders have adequate knowledge based on experience and formal training [9], to make expertise-based decisions and overcome detrimental legacies of the past.

Pakistan is the sixth most populous country of the world, having 216.6 million people [10], of whom 24.3 percent live below poverty line [11]. The size of Pakistan's public sector employs 7.1% of employed people [12]. Importantly, Pakistan public sector policy making has strong influence on private infrastructure, industry, and service sectors for access to resources for project execution [13]. In Pakistan, public sector leadership has strong control over the provision of basic services in health, education, public transport, water management, and communications, which must be improved to implement poverty alleviation programs [14]. Public sector officials are appointed through civil service examinations and their promotion and hierarchical progression is based on years of service rather than performance or skills development. Public sector leaders enjoy prestige, esteem, and life status stemming from their position. It is reported that public sector leaders work to fulfill their personal needs rather than serving the needs of the state, there is a rampant corruption at all organizational levels, and that public resources can be used improperly or illegally for personal gain [15]. The government of Pakistan has made efforts to improve public sector performance through various developmental programs. Asian Development Bank programs in education and health improvement are examples [16], but significant improvement is reported to be limited [14]. Despite a long history of reform programs, Pakistan's public sector is still considered cumbersome, corrupt, and inefficient by its citizens, government, and international development community [15].

This study adapts Nonaka and Takeuchi's knowledge iceberg [17] to conceptualize the acquisition and use of knowledge by public sector leaders [18]. Nonaka and Takeuchi represented explicit knowledge as the visible portion of an iceberg, and tacit knowledge as being the invisible submerged portion [17]. This differs from Yoshida's 1989 conceptualization of an "iceberg of ignorance", which describes the failure of bottom-up knowledge transfer within an organization, resulting in an organizational knowledge deficit in leadership. This study refocuses the scientific discourse on leadership in public administration, by addressing both the visible and the unseen portion of Nonaka and Takeuchi's knowledge iceberg. It posits that explicit and tacit knowledge gaps both impede effective decision-making by public sector leaders, and that both of these knowledge gaps can be invisible in the decision-making processes of public sector leaders. This study explores acquisition of adequate and relevant knowledge and behaviors to investigate the reasons for inexpert leadership in public sector organizations of developing countries, focusing specifically on Pakistan.

Scientific discourse on explicit and implicit knowledge has helped to guide our current understanding of expertise in public sector leaders. However, public sector leadership in developing countries is less well studied, and the reasons for a lack of expertise-based intuitive leadership in these regions are less often explored. Through 28 interviews of public sector leaders and executive trainers, this study explores knowledge development among public sector leaders. The present study addresses the question of how explicit and implicit knowledge deficits contribute to failures in expertise-based intuitive leadership. In doing so, this study advances current conceptualizations of the knowledgebase that contribute to expertise-based intuitive leadership. In doing so, this study sheds light on the capacity of public administration leaders to innovate in response to modern sustainability challenges. With regards to professional practice, this study aims to inform best practice in executive training programs, so that they might better equip public sector leaders in developing countries to manage more effectively in this era of rapid global change.

### *1.1. Public Sector Leadership*

Central to van Wart's [19] definition of public sector leadership is the development and support of followers that deliver results in alignment with an organization's environment. To help understand how leaders pursue this aim, the theories of Burns [20] on transformational and transactional leadership are still relevant in contemporary discourse. It is argued that public sector leaders should embody transformational leadership traits, relying on transactional relationships only moderately, and depending more heavily on integrity and ethics in the fulfillment of tasks [21]. Since transformational leadership in the public sector is associated with leaders who have the domain knowledge to set organizational goals and vision, and embody ethical values, public sector leaders that lack the necessary technical skills or integrity may rely more heavily on transactional leadership through the use of pecuniary incentives. Leadership failure has great importance because the quality of public sector leadership has been shown to negatively impact on public service motivation, and employee engagement and performance [22,23]. Such leadership failure is critical in developing countries like Pakistan where transactional leadership traits still predominate.

The work of van Wart [19] affirmed that public sector leadership can be a learned trait, highlighting the potential value of executive training for public sector leaders. While much scientific discourse, most recently profiled by Virtanen [24], has described the value and best practice application of public sector leadership development programs, those studies almost exclusively consider the public service context of developed countries. Similarly, studies of public sector leaders having higher public sector motivations and motivation to achieve rather than wield power, as reviewed by Orazi, Turrini, and Valotti [21], are also exclusively focused on developed countries. Scientific discourse on public sector leadership traits and training has advanced greatly over the last few decades. However, there is a pressing need for further evaluation of public sector leadership in developing countries to understand how executive training programs can be contextually developed for the specific needs of public sector leaders in developing countries.

Public sector organizations of developing countries, such as Pakistan, India, Nepal, and Bangladesh, are facing daunting challenges to adopt rapidly developing technology platforms and to reform public administration to respond to sustainability challenges [6,8]. The main barrier to adopting and absorbing new technology and contemporary management practices is a lack of knowledge, as conceptualized by Rodrigo-Alarcón, García-Villaverde, Parra-Requena, et al. [25]. Those authors maintain that a lack of knowledge is impacted by specific cultural influences. For example, in many developing countries public sector organizational culture is characterized by high power distance, low individuality, and high uncertainty avoidance [26,27]. As such, decision-making becomes concentrated at higher levels, engendering sycophancy and the bureaucratization of decision-making, which builds resistance to change. As an example, in the area of human resource management for staff recruitment, strong cohesive groups can inhibit equal opportunity recruitment by using biased recommendations based on personal connections [28]. Such insular recruiting environments perpetuate workplace culture

stagnation, where skills development through advanced training does not directly lead to professional advancement. To support the employment of highly skilled experts as leaders of public sector organizations, organizational culture must change so that it is conducive to professional learning and knowledge management for evidence-based policy development [29].

Transformational leadership styles and the interpersonal skills that underpin them have been demonstrated to be essential for successful knowledge management in large organizations [30,31]. Such leadership styles are more positively correlated with good knowledge management practices than transactional leadership traits [32]. More broadly, organizational cultures that do not respect the acquisition of knowledge, hoard knowledge at senior levels, and inhibit knowledge sharing through social interaction, present barriers for knowledge management [33]. These global perspectives are also reflected in leadership in Pakistan where it has been shown that through knowledge management, transformational leadership styles positively predict rational decision-making and organizational learning and organizational performance [34–36]. As shown in the health-care sector of developing countries, lack of support from senior management, insufficient strategic planning, and inadequate organizational structures continue to impede effective knowledge management [37,38]. Tellingly, knowledge sharing motivation among employees is insufficient to overcome the barriers of inadequate organizational culture or leadership [39].

In private sector technology organizations, leadership roles such as the Chief Knowledge Officer or Chief Information Officer (CIO) have gained visibility for their function in focusing organizations on knowledge management and addressing the need to value knowledge held by an organization as an asset [40]. However, in public sector organizations, government CIOs are more focused on addressing organizational Information and Communication Technology (ICT) capacity and adoption; furthermore, a 2013 study of government CIO training identified no training courses in any South Asian country [41]. While companies in knowledge industries are institutionally reinforcing knowledge management through these senior leadership positions, their absence in the public sectors of developing countries leaves these sectors more vulnerable to traditional hierarchical control that inhibits positive culture change. Visionary leadership with knowledge, skills, expertise, and positive values and behaviors can bring radical change. However, clear strategy, vision, and values within public sector leadership can be lacking. This inhibits positive culture change and public sector reform [42], which results in public administration that is not responsive to society's rapid changes and is ill-equipped to address future needs. Expertise-based leadership is critical to successfully bring positive change in complex administrative systems. Leaders need the cognitive capacity to overcome impediments to the abilities of individuals across organizations [43]. Such leadership further promotes accountability, performance, and organizational effectiveness [44]. Conversely, the lack of expert knowledge in public sector leadership perpetuates the existence of fraud, corruption, governance failure, inefficiency, and poor financial control. As such, expertise-based leadership is critical for sustainable public sector management.

### 1.2. Expert Leadership

Fisher and Kiel [45] describe two types of expertise in practice, passive expertise and formal expertise. Passive expertise arises from "exposure through life experience and the position one occupies in a society or culture". Whereas formal expertise is developed by extended study of a particular subject. Since the roots of passive expertise originate in the social and cultural background of the expert, they can be biased by social and cultural preconditioning. The subjective nature of passive expertise leads to overestimation of one's knowledge of a field and creates a consequent illusion of understanding. Furthermore, personal perspectives derived from age or gender can influence the quality of passive expertise that is acquired [45]. We extend this argument regarding the impact of sociocultural preconditioning on passive expertise, to include public sector workplace culture. Differing from passive expertise, formal expertise does not lead to overestimation of competencies [45]. With formal expertise, experts are more likely to embrace a cognition-based, individualistic understanding. They

have task-performance competencies to solve problems and can make decisions through outstanding cognitive activity [46].

As conceptualized by Salas [47], expertise-based intuitive decision-making uses unconscious information processing systems of cognition developed through explicit domain-specific knowledge and implicit attitudes and phenomenological experiences. See [47] for a review of the development of our understanding of expertise-based intuitive leadership and its applications. When applied to public sector leaders, explicit knowledge refers to formal knowledge acquired through qualifications that are requisite for the position held. Implicit attitudes and experiences refer to the cultural and social preconditions and the life-long workplace learning that leaders carry with them throughout the development of their career. Implicit and explicit knowledgebase comprise resources that are required for leaders to make decisions that are informed by their expertise. Expertise-based intuitive decision-making is a valuable characteristic of leaders and it is of critical importance to organizational effectiveness. The leaders of public sector organizations in developing countries have a powerful role both in implementing and reinforcing current regulatory frameworks and deciding upon adopting new regulations to bring organizational shifts to meet sustainable development goals [2,6].

Explicit and tacit knowledge embody the skills, intuition, organizational culture, reputation, and codified theory that enable leaders to affect decision-making in organizations [48]. Such knowledge enables leaders to evaluate situations and incorporate new experiences and information [49]. During a time of global change, it is essential that public administrators are able to acquire new knowledge and adopt new paradigms for sustainability, rather than carrying the legacies of old practices that are ill-suited to respond to novel challenges. In principle, the codified theory that public sector leaders gain through formal education and the technical experience that they gain over time in workplaces, constitute a structured, explicit knowledgebase to support expertise-based intuition in order to promote innovation in their organizations. However, also important is the tacit knowledge held by leaders, which is a critical contributor to effective management and organizational competitive advantage [47,49,50] for organizational innovation capacity [51]; knowledge sharing or diffusion [52,53]; teamwork [54]; and knowledge management [55,56]. However, the intangible nature of tacit knowledge can leave the decision-making of leaders susceptible to negative influences. For example, the culturally derived tacit knowledgebase of managers in South Asia can lead them to prefer workers who will follow them even when they are wrong, inducing workers to highly value followership rather than performance [57]. Thus, poor leadership and unsustainable organizational culture can be normalized by blindly loyal followers who may placate poor behavior to maintain the appearance that everything is alright. As such, leaders' decisions can appear to be well grounded, even if they are baseless [58].

Use of explicit and tacit knowledge in public sector management is well characterized by Nonaka and Takeuchi's conceptualization of the "knowledge iceberg" [17]. The contribution of explicit knowledge at the top of the iceberg to effective decision-making is visible. However, according to Salas [47], effective decision-making requires expertise-based intuition, developed over time and supported by intangible tacit knowledge. The hidden nature of the largely intangible tacit knowledge is represented by the iceberg's submerged portion. The use of explicit and tacit knowledge for expertise-based intuitive decision-making by leaders for sustainable public sector administration is known to be lacking in developed and developing countries [55]. However, in South Asian countries, the acquisition and retention of this knowledge by public sector leaders remains largely unaddressed in the scientific literature.

In public sector organizations, expert leadership is required for effective decision-making in response to undefined or complex situations. Experts need not only general knowledge, specialized skills, and broad experience, but they also need to continuously update their knowledgebase to express expertise-based intuitive leadership. Besides expert knowledge, positive values and work behaviors are also required for effective leadership to express informed confidence for employees to follow [59,60]. However, in many countries, public sector executives are often promoted because of their length of service or for the strength of their professional networking with other authorities. Promotion of leaders

by virtue of their position in the public sector not only creates the risk that these passive experts lack formal expertise, but it opens the door to greater influence from negative public sector cultural traits that impede organizational change and the sustainability of organizations. As passive experts, some public sector leaders, particularly in developing countries, may be less educated, exhibit stronger illusions about their expertise, and entrench existing negative workplace cultures [43]. Such leaders induce a mum effect [61] or hubris syndrome [62] in organizations, thus limiting their capacity to address sustainability challenges through innovation and reform.

Expert leadership relies on domain-specific intuition developed through extensive learning and practice [63]. This knowledge and experience need continuous updating and development to meet the changing needs of specific domains. Baylor [64] proposed a U-shaped model showing the development over time of expertise-based intuitive decision-making, where low expertise is initially associated with high immature intuition that decreases over time, replaced by mature intuition which increases with expertise. Such expertise-based intuition is also referred to as educated intuition by Hogarth [65]. Salas [47] referred to educated intuition as expertise-based intuition, where leaders have deep and rich knowledge due to extensive experience within a domain. Expertise is a high level of skill and knowledge, and leaders can achieve a high level of skill and knowledge through domain-specific knowledge, focused experience, and practice over time [66,67]. The use of the term “intuition” in this study must not be accepted in its general sense. Expertise-based intuitive decision-making is a product of explicit and tacit knowledge and experience. Explicit knowledge fosters deliberative decision-making while intuition is based on tacit learning and adds insight above and beyond explicit, rule-based learning. Thus, expertise-based intuitive decision-making is still grounded by domain-specific knowledge and experience [62,68,69]. At each hierarchical level of the public sector, there is the opportunity for tacit knowledge to be carried up by emerging leaders. However, there is also a risk that social and cultural biases create influences that drive decision-making that inhibits organizational change and development [70]. It is important to understand how these decision-making skills develop or are impeded in the public sector.

## 2. Materials and Methods

### 2.1. Data Collection

A qualitative interview methodology was used in this study, because qualitative interviews and other qualitative approaches are favored when describing “routine and problematic moments and meanings in individuals’ lives” [71]. Twenty-eight in-depth unstructured interviews of between 30 and 90 min were conducted, having consideration for postmodern interviewing approaches that minimize the influence of the interviewer. Specifically, polyphonic interviewing of many respondents’ voices permitted analysis of the commonalities and differences between responses. Social, cultural, historic, and economic factors were considered in preparing the location and language of the interviews and their conduct by the interviewer. During data collection, the constant comparison method was used to identify themes based on terms used by respondents, further minimizing any potential interviewer influence. Prior to conducting interviews, the interviewer developed a clear plan, goal, and focus for the interviews, establishing sufficient understanding of the setting to have a clear agenda for the discussion, as recommended by Cohen and Crabtree, [72]. The interviews were conducted individually through uninterrupted face-to-face meetings in the private offices of the participants. All interviews were held and recorded in mixed Urdu and English. Participation was conditional to the provision of prior voluntary informed consent by interviewees, and a commitment to the protection of personally identifying information by the interviewer. Throughout the interviews, interviewees were prompted to focus their reflections on public sector projects of relevance to the attainment of SDGs; for example, projects relating to the improvement of health and education. The conduct of the interviews was structured in three sequential phases. Firstly, interviewees were prompted to discuss issues related to reasons for project failure, cost overruns, and timeframe delays. Second, interviewees

were prompted to reflect on attitudes regarding leadership and the role of leadership in policy making, project implementation, and organizational culture. Third, interviewees were prompted to reflect on the knowledge required by leaders to become able to make expertise-based decisions for effective policy development and strategy implementation. Recordings were subsequently transcribed into English using the intelligent verbatim method. The sample number for participants was determined by the theoretical saturation of themes. Participant recruitment and data collection was halted when all emergent themes were saturated, in accordance with Charmaz [73]. Saturation was determined according to Saunders, Sim, Kingstone, et al. [74]. Code saturation occurred after 14 interviews, and sample number was increased to 28 to achieve mean saturation as defined by Hennink, Kaiser, and Marconi [75].

## 2.2. Participants

The study participants were heads of divisions and project directors/managers from fourteen public sector organizations in Islamabad, Pakistan. Organizations were targeted based on the relevance of their work for achieving sustainability goals, and based on the structure of the organization being sufficiently large to accommodate multiple hierarchical levels. Inclusion criteria for participants were based on level of seniority being sufficient to have authority or influence over others; project management in areas of relevance for achieving sustainability goals; and duties including project economic analyses, financial project management, project proposal development, and reporting. When this study refers to leaders, it adopts the view that leadership is characteristic that is dispersed at many levels and within an organization and that leaders exist at many managerial and supervisory levels [76–78]. When participants referred to leaders, they were referring to people who were in positions of authority or influence over those participants. With the exception of executive training organizations, all organizations employed more than 50 staff members and could be described as being large government ministries or secretariats that are critical to the delivery of social services. Training organizations involved in the training of public sector leaders were also interviewed to understand the learning behaviors and training methodologies used to upgrade the knowledge and skills of public sector leaders. Interviews covered the themes of project management, governance, approval, and appraisal, because these areas of management are common to all areas and levels of public sector administration [79]. Table 1 summarizes the types of participants that were included in this study.

**Table 1.** Study population.

Category	Participants	Gender	
		Male	Female
Project Executives	11	10	1
Project Directors/Managers	9	8	1
Trainers	8	4	4
Total	28	22	6

## 2.3. Data Analysis

The collected qualitative data was quantified using MAXQDA code frequency analysis (version 20.18.2, VERBI Software Sozialforschung GmbH, Berlin, Germany, 2018). Use of code frequencies supported identification of commonalities and differences between participants' responses, independent of interviewer influence [80]. Data analysis followed a constant comparative method. After 90 open codes were identified, each line of the transcripts was read to select line segments for coding using the MAXQDA in-vivo coding function. Open coding was continued until there was saturation of each code and the emergence of categories [81]. Axial coding was conducted by filtering the initial open codes into 10 categories, identifying those that had more saturation and were more relevant to the research problem [82]. Selective coding into three core categories re-established the boundaries

of the emerging theory. The theoretical saturation over core categories and their linkages helped to develop the theory [83].

### 3. Results

#### 3.1. Technical Skills

A principle finding of this study was a lack of leadership skills based on poor domain knowledge, knowledge of international standards, and technological fluency. These skills gaps present critical barriers for expert leadership. Table 2 summarizes the responses of participants, demonstrating through code saturation the importance of these three lacking aspects of leadership skills and knowledge.

**Table 2.** Code frequencies describing technical skills.

Axial Codes	Frequency
Domain knowledge	14
Technological fluency	5
International standards awareness	9
International standards acceptance	2

From a total of 28 transcripts analyzed, 20 transcripts had relevance for a technical skills code.

##### 3.1.1. Domain Knowledge

According to the participants, their leaders lacked sufficient domain knowledge to manage the specialized responsibilities of their ministries or organizations. Lacking technical bases for decision-making, it was perceived that leaders were not committed to their own decisions. For example, participants expressed that workplaces lacked proper monitoring and evaluation following decision-making, contributing to a lack of organizational commitment to decisions that had been made by leaders. For example, participants stated that:

People involved in decision-making and policy making have no competence level. Now competence [should include] both skills and training, neither they are skilled nor trained. Hence, it is a recipe for disaster. When, the condition of HR is such . . . , then we are signing already failed projects.

[Leaders] are unable to understand the technical requirements of energy projects. As we are working on energy conservation projects. Therefore, they ask minor questions and justifications that are basically understood by any person with [superficial] know-how. Their questioning and our justification process take time and affects the project.

The participant responses above are individual examples that relate to the lack of domain knowledge held by leaders. As shown in Table 2, the constant comparison analysis used in this study identified 14 statements from participants that were associated with the domain knowledge code, the most frequent of the codes that reached saturation in the technical skills category.

It was further found that leaders failed to delegate their tasks to subordinates, and thus did not access the technical skill available within their organizations. For example, as quoted by an interviewee:

In the case of [best practice] the project manager has full authority. However, in public sector project management, the project manager has little authority, i.e., in project financing, he is dependent on the functional manager of the finance department. The functional manager gave no flexibilities . . . replying that your demands were not matching our rules and regulations. In [Pakistan], no one has been following the project management practices, nor giving authority to project managers.

Recently I went to Korea for four-day training, in the end, they [Korean trainers] ask us to develop an action plan and implement it in our country. I replied in the public sector if you need an action plan to implement, then you should call an executive for this training. Because I am not autonomous enough there.

Participants concluded that delegation failure was a result of a fear of losing power. Leaders felt self-sufficient in their tacit knowledge based on their experience, inhibiting their desire to learn



or adopt new technical skills and knowledge. The discussions with participants showed that while leaders exhibited administrative skills, they were inexperienced in the specialized functional domains of their organizations. Consequently, they could deal with general administration, such as human resources, physical asset management, and record keeping, but they were unable to understand domain-specific problems like the cost and impact of domain-specific issues, and the managerial systems required for domain-specific program implementation.

A subgroup of participants maintained that leaders should have domain-specific knowledge, however other participants viewed leaders as requiring administrative knowledge only. This lack of recognition among participants of the importance of expert leaders may be a consequence of the absence of positive examples of expert leadership in their workplaces.

### 3.1.2. Technological Fluency

According to project managers, their leaders were not aware of the benefits of using technical systems such as information and communication technology systems. According to trainers, the leaders were “not computer literate”. Reinforcing these participant perceptions, it was observed during interviews that leaders were paper dependent and not ready to accept new technical support systems. For example, one participant said “we are paper dependent, we prefer to work on paper. Our behaviors are not accepting paper in [many] activities . . . ”.

Such an absence of knowledge and lack of support for technology-based business support systems from executives is an indication of the high barriers that exist for the application of new knowledge or new business systems. Sustainable development requires flexibility and a propensity of organizations for adaptation and growth. Conversely, adherence to the inertia of past ways and existing culture creates a strong impediment to public sector leadership decision-making to successfully meeting SDGs.

### 3.1.3. International Standards

In all public sector organizations that were studied, there was a lack of awareness of international standards in management, and even if known, a lack of willingness to adopt them. As an example, participating leaders were asked about their views on the Project Management Book of Knowledge (PMBOK), an international standard for project management by PMI (the Project Management Institute) which should be of critical importance for all interviewed leaders because of its international recognition as a fundamental resource for effective project management. Only one participating leader replied with a moderately positive mindset that “if PMBOK is a good standard and . . . it can bring positive changes, then suggest how”. Besides this response, other participants either did not know of PMBOK, could not understand its application, or expressed no interest in understanding more.

The process of knowledge acquisition begins with an acceptance of the importance of knowledge. Discussions with training consultants in this study show that there was a lack of acceptance of the utility of international standards for project management by public sector officials. Reinforcing this training industry view is the observation that public sector organizations in Pakistan largely do not follow PMBOK, instead asking training industry consultants to serve them.

More broadly, the results of this study regarding domain knowledge demonstrate that not only do public sector leaders lack the domain knowledge that they need, they also lack the knowledge of international best-practice that would help to identify where they require professional development to become better expert leaders. This inertial resistance creates enormous dependency on the external provision of executive training, while also creating high barriers for the adoption of new knowledge even if executive training is undertaken.

## 3.2. Soft Skills

The effectiveness of leaders is dependent on soft skills in addition to intellectual capacity and technical expertise. David and McKenna [84] express the importance of technical knowledge in order to provide expert leadership for the sustainable future of organizational operations. However, attitudinal

management characteristics are also important, as exemplified by the need for trust and fairness for the development of social license to operate and the sustainable future operations of a company or organization [85]. The attitudinal characteristics discussed by the participants of the study show that public sector leaders of Pakistan can lack the soft skills that are necessary for transformational leaders to succeed in a new era of sustainable development. Table 3 summarizes the responses of participants, demonstrating through code saturation the importance of four soft skills in public sector leaders in Pakistan.

**Table 3.** Code frequencies describing soft skills.

Codes	Frequency
Superiority	11
Envy behavior	2
Knowledge sharing	2
Resistance to change	6

Of 28 transcripts that were analyzed, 15 transcripts had relevance for a soft skills code.

### 3.2.1. Superiority

The low or non-technical knowledge of leaders in the field of project management is impeding the implementation of new knowledge learned by young professionals. Having explored the lack of technical knowledge of public sector leaders in Pakistan, interviews then addressed the challenge of remedying those knowledge gaps. Discussions with participants showed that a feeling of superiority was a key hurdle impeding the development of expert leaders. According to participants, the motivational level of leaders to learn new skills starts decreasing approximately after the age of 50. Hence instead of learning, leaders make decisions based on their tacit knowledge accrued throughout their long professional histories. Participants also expressed the problem of time management. With multitudinous responsibilities, the time required to attend formal professional training becomes prohibitive. As such, it was reported that leaders delegated tasks requiring new knowledge to their assistants. However, junior staff do not necessarily have the experience to apply new knowledge to organizational responsibilities that ordinarily require the experience of senior leaders. Furthermore, maintenance of a feeling of superiority inhibits engagement with more junior staff, limiting organizational knowledge transfer and reinforcing a knowledge vacuum at senior levels.

### 3.2.2. Envy Behavior

Envy restricts knowledge sharing or knowledge promoting behavior at an executive level [86]. In the present study, participants shared the impact of envy behavior in public service leaders. In relation to permitting other staff to attend professional development, participants reported that “sometimes [leaders] are reluctant because of thinking that they may come back with more knowledge, and lastly overall have a feeling of not doing well for someone”. “Jealousy also matters. They do not want their juniors to learn that they do not know . . . Old executives never like juniors to learn, they taunt us”.

Leaders can play roles of “innovators”, “mentors”, and “facilitators” for developing positive knowledge sharing culture in organizations [87]. They have a crucial role in planning knowledge sharing processes and setting up knowledge sharing channels [88,89]. According to Pan and Scarbrough’s [90] comprehensive list, effective leadership includes role-modelling, supporting organizational culture, and creating environments conducive for knowledge sharing and knowledge creation. Besides the public sector of Pakistan, the academic sector has also demonstrated leadership envy behavior in knowledge creation and sharing. As discussed by Ali, Usman, and Pham [91], as a result of social comparisons with competent subordinates, leaders engage in the feeling of envy and engage in different knowledge hiding behaviors.

### 3.2.3. Knowledge Sharing

Participants reported that even when leaders have new knowledge, they do not share it. “In case of projects executed in multiple areas, project leaders should share knowledge to each other, but they intentionally do not share keeping in mind the competition of completing project milestone ahead of others”. “On the other hand, project leaders do not share their expertise and work, [they are] knowledge hidiers”. By not sharing their expertise-based organizational knowledge, many public sector leaders in Pakistan limit the amount of knowledge sharing, thus impeding the ability of their organizations to respond to challenges through innovation.

### 3.2.4. Resistance to Change

According to participants, in the public sector, the regulatory environment is such that it promotes the status quo, deepening organizational inertia. It was reported that when project managers bring external advanced knowledge into an organization, senior management provides no space to implement their learned knowledge. Although the root cause of this resistance to change may be a rigid regulatory environment, the conservative authorization behavior and low risk appreciation of senior management further instil strong resistance to change. When knowledgeable project managers bring novel changes to the attention of leadership, denial of authorization by traditional leaders is the mechanism through which rigid regulatory environments maintain the inertia of an organization, inhibiting sustainable development.

### 3.3. Occupational Experience

According to his seminal work on occupational success, McClelland [92] espouses that “knowledge” represents the information a person has in a particular area, and “skills” refer to the behavioral demonstration of that knowledge. Participants of this study reported that leadership positions are gained in public service in Pakistan through long tenures and continuous observation of bureaucratic prerequisites for promotion. While such work histories contribute to the tacit knowledge available to a leader, the lack of formal knowledge through qualifications and professional training precludes the emergence of expert leaders. Table 4 summarizes the responses of participants, demonstrating through code saturation, the training gaps, impediments to professional learning, and failures to implement professional training that existing in public sector leaders.

**Table 4.** Code frequencies describing occupational experience.

Axial codes	Frequency
Executive training methodologies	12
Continuous occupational learning	2
Continuity of command	2

Out of 28 transcripts analyzed, 14 transcripts had relevance for an occupational experience code.

#### 3.3.1. Continuous Occupational Learning

The public services of many developing countries include institutionalized systems for the continuous occupational learning of public servants. In Pakistan, this training service is the Central Superior Services (CSS). However, executive training participants in this study reported that the training modules of the CSS do not include modern project management or systems management processes, nor do they provide domain knowledge. Instead, CSS training focuses on developing administrative skills, arguably reflected in the reported knowledgebase of public sector leaders. The common training program and then the specialized training program of the CSS need to be upgraded in response to the need for innovative management for sustainable public sector functioning, and to break existing barriers of bureaucracy [93]. While improvements to the CSS syllabus have recently been made, the syllabus still does not meet global standards, nor does it reflect the improvements recently made to

equivalent systems of other sub-continental and Asian countries. Specifically, participants reported that training regarding technical skills, attitudinal characteristics, and interpersonal skills are completely lacking in the CSS syllabus.

### 3.3.2. Continuity of Command

Many participants of this study expressed that an important factor that hinders the development and expression of expert leadership at an organizational level in the public sector is the lack of continuity of command among leaders. Public sector leaders are employed within an organization for only three years, which is often not enough for a leader to implement systemic changes, and results in loss of organizational knowledge during leadership transitions. While the rapid turnover of organizational leaders is a mechanism used to control corruption, participants reported that it also creates a problem in the development and expression of intuitive knowledge. There are available guidelines by Organization for Economic Co-operation and Development (OECD) and United Nations Development Programme (UNDP) to control corruption through developing ethical competence and strengthening individual integrity [94,95]. For this reason, training in ethical integrity as an advanced level of executive training might help to resolve the need to control corruption through forced mobility, providing the flexibility in the tenure of leaders to overcome continuity of command problems.

### 3.3.3. Executive Training Methodologies

It was reported by participants that leaders are self-interested, giving no space to managers who are perceived as rivals. It was also reported that self-interests underpin a propensity to follow old traditional systems rather than risk the development of innovative management solutions. Such behaviors can be controlled by promoting transformational leadership through training [96]. However, according to participant trainers, executive training methodologies to support behavior change are lacking. “They need basic knowledge [for management of] subordinates”. “They need brainwashing to erase negative behaviors, and moral development”. “They have enough [technical] knowledge . . . there is a need for training on interpersonal skills”.

Executive level training is a critical element of any modern organizational environment. In public sector environments where formal training can leave gaps in explicit knowledge, and where negative workplace culture and behavior can lead to poor tacit knowledge, the need for executive level training becomes paramount. Summarizing this need succinctly, one of the executive participants stated that “executives can learn technologies and updated managerial systems, but there is a need for effective training and behavioral change to make them an expert [leader]”.

## 4. Discussion

One conceptualization of expert leaders is based on those leaders holding explicit knowledge acquired through formal training, and tacit knowledge aggregated over years of personal and professional experience. This so-called knowledge iceberg conceptualizes important hidden behaviors and attitudes that have as much influence as visible explicit knowledge, over intuitive expertise-based decision-making. Much scientific discourse exists at the visible tip of the knowledge iceberg, and how explicit knowledge can be gained and utilized through hard skills of executives. However, the influence of tacit knowledge that exists hidden below the water is more challenging to divine. The difficulty is partly due to the hidden nature of tacit knowledge, and also due to its dependency on variable individual personal and cultural precedents, gained through life experience and the position one occupies in a society or culture.

Despite these complexities, expertise-based decision-making is critical for effective leadership [97, 98], and the quality of a leader’s explicit and tacit knowledge are both critical for occupational success. To address the knowledge iceberg of public sector leaders in Pakistan, this study has revealed deficits in both explicit and tacit knowledgebase. While the identified domain-specific deficiencies are explained by gaps in explicit knowledge, deficient soft skills for management are explained both by tacit and

explicit knowledge gaps. Such a characterization of knowledge in Pakistani public sector leaders is reflected in the concept of Baylor's "immature intuition", i.e., being without sufficient experience or updated knowledge to support competent domain-specific practice [64].

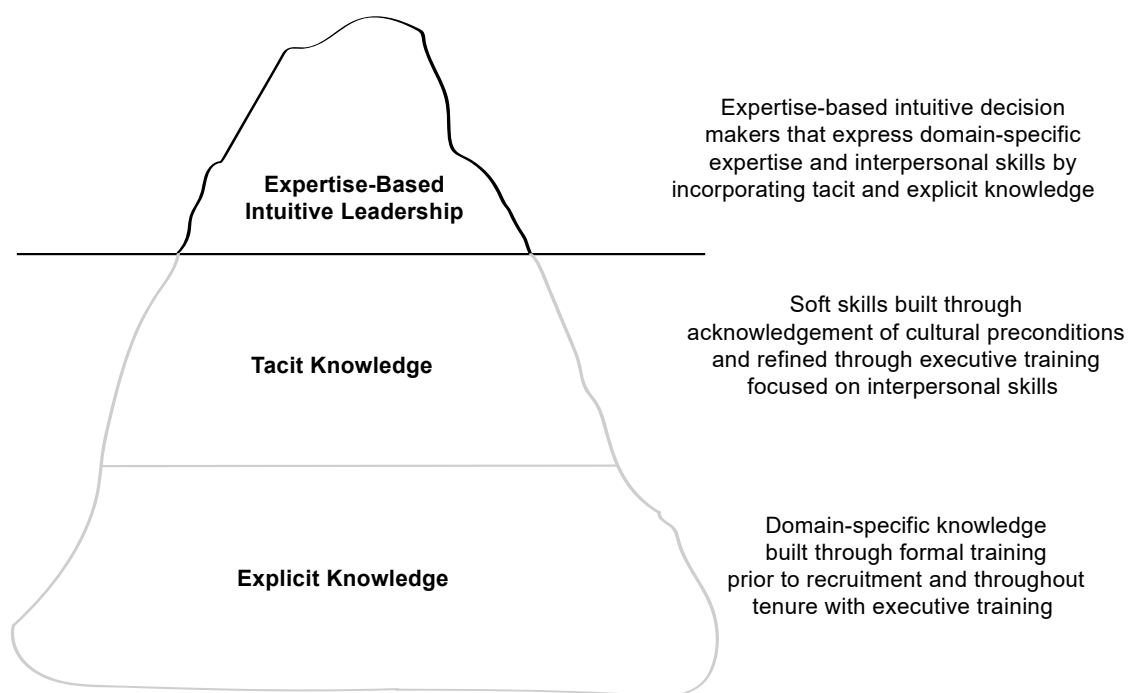
The concept of life-long learning is well embedded in Western corporate culture. Continual learning ensures that managers reinforce explicit domain-specific knowledge initially learned during their entry qualifications. It also ensures that managers stay current in their technical fields, updated skilling with emerging technologies or methodologies. Acceptance of such life-long learning among public sector leaders in South Asian countries would help overcome the explicit knowledge deficits that are evident. Deficiencies in soft skills can also be remediated, both through explicit knowledge acquisition from executive management training, and through implicit knowledge acquisition through ongoing workplace experience and the use of soft skills [75,86]. These improvements in knowledge and skills would help overcome the inertial drag of traditional hierarchical public sector structures, making leaders aware of current leadership skills to drive innovative organizations towards systemic change.

The present study conceptualizes the two-tiered knowledge iceberg of Salas [47], as a three-tiered construct. Our reconceptualized iceberg of expertise-based intuitive leadership recognizes that explicit and tacit knowledge are both hidden in practice, since it is often impossible to determine what knowledgebase a leader draws on when management decisions are made. It also describes the direct dependency that expertise-based intuitive leadership has on both of these forms of knowledge. This differs from the two-tiered construct of Salas [47], which conceptualized explicit knowledge as being visible and tacit knowledge as being hidden.

As shown in Figure 1, this study places expertise-based intuitive leadership at the visible tip of the iceberg, recognizing that it is only through the expression of management decisions that the knowledgebase of leaders are made visible. Hidden, and directly underpinning this expertise, is tacit knowledge, developed through work history and life experience and often expressed through soft skills. Creating the foundation for both of these tiers are the basic skills and knowledge of executives, acquired originally during formal training and continuously updated through executive training throughout their tenure in public service. This concept describes how executive professional training can have dual roles in developing the domain-specific knowledge and the soft skills that are necessary for expertise-based intuitive decision-making. This conceptualization of expertise-based intuitive leadership supports three propositions.

Proposition 1: That domain-specific knowledge depends on formal skills and explicit knowledge is acquired through requisite qualifications and is also gained throughout life-long learning. Despite having sustainable development strategies, public sector organizations of Pakistan are hindered in their responsibility to achieve SDG targets due to a lack of human capacity [98]. Continual updating of domain-specific knowledge is necessary for leaders to understand emerging problems and adopt cutting edge tools to create new opportunities to achieve SDGs [99]. Lacking current technical skills and situational awareness, public sector leaders are unable to meet emerging sustainability demands.

Proposition 2: That executive training helps to develop soft skills, contributing positively to tacit knowledge that can enable leaders to manage human relationships effectively to develop knowledge sharing and create positive public sector culture for sustainable development. In public sector workplaces, it has been demonstrated that leadership competencies, organizational competencies, and barriers like resistance to change have more influence on organizational capacity than funding constraints [100]. The current tacit knowledgebase of public sector leaders in Pakistan is learned through the traditional hierarchical culture of public service, and such culture contributes to high power distance environments, sycophancy among subordinates, envy behavior, and corruption at all levels. The conservative behavior of leaders develops a culture where knowledge management is impeded, reducing organizational change and development. Executive management training is only one part of a portfolio of interventions that would be necessary to overcome these barriers. However, leaders must be trained to recognize the value of knowledge sharing cultures for cultural change and organizational development in the public sector.



**Figure 1.** Iceberg of expertise-based intuitive leadership.

Proposition 3: That the visible expression of expertise-based intuitive leadership can be developed through the integration of explicit and implicit knowledge acquired through specific domain formal training and a long track record of workplace experience. While public service organizations in developing countries require field-specific qualifications for their leaders, the data demonstrate that this formal learning can be lacking. This disparity highlights that both explicit knowledge and tacit knowledge are hidden, requiring proactive investigation to understand if a leader's decisions are expertise-based.

## 5. Conclusions

Top down global initiatives for sustainable development, such as the UN 2030 Agenda for Sustainable Development and its SDGs, have potential to bring value to developing countries through external investment and oversight. However, systemic and lasting change is driven by the internal capacities of developing countries to adopt international paradigms for sustainability and implement locally relevant programs using domestic skills and resources. Where public sector leaders lack the skills to plan, manage, and assess the impact of sustainable development programs, international sustainability initiative may also fail. Such governance and leadership failures continue to be reported as an underlying reason for failure of sustainable development projects in Pakistan.

In Pakistan, we report through surveyed leaders in public administration that explicit and tacit knowledge gaps both detrimentally impact on the function of public entities and officials that are charged with the responsibility to manage sustainable development projects. The existence of these explicit and implicit knowledge gaps is often hidden by sociocultural and public sector workplace environments that promote and sustain leaders irrespective of their knowledge gaps. Such a conclusion invites a re-evaluation of previous iceberg conceptual models for expertise-based intuitive leadership, which represent explicit knowledge as being visible and tacit knowledge as being invisible.

The iceberg of expertise-based intuitive leadership proposed in this study contributes to the existing literature by highlighting the hidden nature of both explicit and tacit knowledge, demonstrating the importance of life-long learning and executive management training for the performance of public sector leaders. Such performance is necessary to bring about radical shifts in organizational function in order to achieve sustainable public administration and address emerging sustainability challenges.

Expressed at a basic project management level, human capacity development to overcome explicit and tacit knowledge deficits is necessary for effective project planning, management, and review, to successfully implement strategies for sustainable development in developing countries.

## 6. Limitations and Future Research Recommendations

This study has addressed the types of knowledge that underpin public sector leadership in Pakistan. The similarities between the public sectors of many developing countries [7] broaden the relevance of this study. However, the British provenance of public service structures in Pakistan and their function in context with modern Pakistani culture are unique. Conversely, the Spanish provenance of public service structures and their modern usage in Latin American countries may well generate a very different set of structural and cultural determining factors for public service function. Further research across public sector organizations in other developing countries would help to explore the full range of organizational, social, cultural, and developmental factors that influence the knowledgebase of public sector leaders.

Due to the pronounced workplace gender disparity that is evident in Pakistan, this study has a very low number of female participants. While gender disparities are reported by the World Bank across South Asian countries [101], caution is advised when extending the conclusions of this study to other countries that exhibit greater gender equality in employment. The acquisition and expression of tacit knowledge is preconditioned by sociocultural environments. With gender being an important influencer of the sociocultural environment of workplaces, there is a need for further research to consider the impact of gender on public sector leadership knowledge models. Such studies would help to bridge the gap between existing bodies of work on women in leadership, and knowledge management and leadership.

The results of this study indicate the importance of executive training programs as a source of explicit knowledge to develop both technical and soft skills. This knowledge has value in practice, to ensure that leaders have access to different professional development training programs that can provide domain-specific knowledge or soft skills. Moreover, trainers should consider the importance of tacit occupational experience, which could impede or catalyze the positive expression of explicit domain-specific knowledge and soft skills.

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## References

1. Yanguas, P.; Bukenya, B. 'New' approaches confront 'old' challenges in African public sector reform. *Third World Q.* **2016**, *37*, 136–152. [[CrossRef](#)]
2. Elliott, J. *An Introduction to Sustainable Development*; Routledge: Oxfordshire, UK, 2012; pp. 56–61.
3. Bangura, Y.; Larbi, G.A. (Eds.) *Public Sector Reform in Developing Countries: Capacity Challenges to Improve Services*; Palgrave Macmillan: Basingstoke, UK, 2006.
4. Faisal, F. Sustainability: An imperative for improving governance and management in Pakistan. *Pak. Econ. Soc. Rev.* **2017**, *55*, 53–78.
5. Israr, S.M.; Islam, A. Good governance and sustainability: A case study from Pakistan. *Int. J. Health Plan. Manag.* **2006**, *21*, 313–325. [[CrossRef](#)] [[PubMed](#)]
6. Mansell, R.; Wehn, U. *Knowledge Societies: Information Technology for Sustainable Development*; Oxford University Press: Oxford, UK, 1998; pp. 20–22.

7. Huque, A.; Zafarullah, H. Public management reform in developing countries. In *Public Sector Reforms in Developing Countries: Paradoxes and Practices*; Conteh, C., Huque, A., Eds.; Routledge: London, UK, 2018; pp. 10–22. [CrossRef]
8. Sabharwal, M.; Berman, E.M. (Eds.) *Public Administration in South Asia: India, Bangladesh, and Pakistan*; CRC Press: Boca Raton, FL, USA, 2013. [CrossRef]
9. Abubakar, A.M.; Elrehail, H.; Alatailat, M.A.; Elçi, A. Knowledge management, decision-making style and organizational performance. *J. Innov. Knowl.* **2019**, *4*, 104–114. [CrossRef]
10. United Nations: Department of Economic and Social Affairs. *World Population Prospects 2019*; United Nations: New York, NY, USA, 2019; p. 889.
11. Asian Development Bank. Basic Statistics 2019. Available online: [www.adb.org/countries/pakistan/poverty](http://www.adb.org/countries/pakistan/poverty) (accessed on 25 May 2020).
12. Amir-Ud-Din, R. Politics of Government Jobs. *The News*. 2020. Available online: [www.thenews.com.pk/tns/detail/600561-politics-of-government-jobs](http://www.thenews.com.pk/tns/detail/600561-politics-of-government-jobs) (accessed on 25 May 2020).
13. State Bank of Pakistan: Infrastructure Taskforce. The Pakistan Infrastructure Report. Available online: <http://www.sbp.org.pk/departments/ihfd/InfrastructureTaskForceReport.pdf> (accessed on 26 May 2020).
14. Ahmed, R.; Bin Muhammad, N. Performance of projects in public sector of Pakistan: Developing a framework for future challenges. *Serb. Proj. Manag. J.* **2014**, *4*, 3–12.
15. Wasim, M. Organisational Change and Development in the Public Sector: Inhibiting Factors in Pakistan. Ph.D. Thesis, University of York, York, UK, 2016.
16. Asian Development Bank. *Sector Assistance Program Evaluation for the Social Sector of Pakistan*; Asian Development Bank: Manilla, Philippines, 2005; pp. 1–88.
17. Nonaka, I.; Takeuchi, H. *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*; Oxford University Press: Oxford, UK, 1995. [CrossRef]
18. Choi, T.; Chandler, S.M. Exploration, exploitation, and public sector innovation: An organizational learning perspective for the public sector. *Hum. Serv. Organ. Manag. Leadersh. Gov.* **2015**, *39*, 139–151. [CrossRef]
19. Van Wart, M. Public-sector leadership theory: An assessment. *Public Adm. Rev.* **2003**, *63*, 214–228. [CrossRef]
20. Burns, J.M. *Leadership*; Harper Torchbooks: New York, NY, USA, 1978.
21. Orazi, D.C.; Turrini, A.; Valotti, G. Public sector leadership: New perspectives for research and practice. *Int. Rev. Adm. Sci.* **2013**, *79*, 486–504. [CrossRef]
22. Ugaddan, R.G.; Park, S.M. Quality of leadership and public service motivation: A social exchange perspective on employee engagement. *Int. J. Public Sector Manag.* **2017**, *30*, 270–285. [CrossRef]
23. MacLeod, D.; Clarke, N. *Engaging for Success: Enhancing Performance Through Employee Engagement*; Department for Business Innovation and Skills, Crown Copyright: London, UK, 2009.
24. Virtanen, P. *Developing Public Sector Leadership: New Rationale, Best Practices and Tools*; Springer Nature: London, UK, 2020.
25. Rodrigo-Alarcón, J.; García-Villaverde, P.M.; Parra-Requena, G.; Ruiz-Ortega, M.J. Innovativeness in the context of technological and market dynamism. *J. Organ. Change Manag.* **2017**, *30*, 548–568. [CrossRef]
26. McAdam, R.; Moffett, S.; Peng, J. Knowledge sharing in Chinese service organizations: A multi-case cultural perspective. *J. Knowl. Manag.* **2012**, *16*, 129–147. [CrossRef]
27. Ghadi, M.Y.; Fernando, M.; Caputi, P. Transformational leadership and work engagement. *Leader. Organ. Dev. J.* **2013**, *34*, 532–550. [CrossRef]
28. Nadeem, S.; de Luque, M.F.S. Developing an understanding of the human resource (HR) complexities in Pakistan with a GLOBE cultural lens. *J. Manag. Organ.* **2018**, 1–19. [CrossRef]
29. Avey, J.B.; Hughes, L.W.; Norman, S.M.; Luthans, K.W. Using positivity, transformational leadership and empowerment to combat employee negativity. *Leadersh. Organ. Dev. J.* **2008**, *29*, 110–126. [CrossRef]
30. Politis, J.D. The relationship of various leadership styles to knowledge management. *Leadersh. Organ. Dev. J.* **2001**, *22*, 354–364. [CrossRef]
31. Crawford, C.B. Effects of transformational leadership and organizational position on knowledge management. *J. Knowl. Manag.* **2005**, *9*, 6–16. [CrossRef]
32. Nam Nguyen, H.; Mohamed, S. Leadership behaviors, organizational culture and knowledge management practices: An empirical investigation. *J. Manag. Dev.* **2011**, *30*, 206–221. [CrossRef]
33. De Long, D.W.; Fahey, L. Diagnosing cultural barriers to knowledge management. *Acad. Manag. Perspect.* **2000**, *14*, 113–127. [CrossRef]



34. Riaz, M.N.; Khalili, M.T. Transformational, transactional leadership and rational decision making in services providing organizations: Moderating role of knowledge management. *Pak. J. Commer. Soc. Sci.* **2014**, *8*, 355–364.
35. Imran, M.K.; Ilyas, M.; Aslam, U.; ur-Rahman, U. Organizational learning through transformational leadership. *Learn. Organ.* **2016**, *23*, 232–248. [[CrossRef](#)]
36. Abass, F.; Hayat, M.; Shahzad, A.; Riaz, A. Analysis of knowledge management in the public sector of Pakistan. *Eur. J. Soc. Sci.* **2011**, *19*, 471–478.
37. Karamat, J.; Shurong, T.; Ahmad, N.; Waheed, A.; Khan, S. Barriers to Knowledge Management in the Health Sector of Pakistan. *Sustainability* **2018**, *10*, 4155. [[CrossRef](#)]
38. Karamat, J.; Shurong, T.; Ahmad, N.; Afridi, S.; Khan, S.; Khan, N. Developing Sustainable Healthcare Systems in Developing Countries: Examining the Role of Barriers, Enablers and Drivers on Knowledge Management Adoption. *Sustainability* **2019**, *11*, 954. [[CrossRef](#)]
39. Muqadas, F.; Ilyas, M.; Aslam, U.; ur-Rehman, U. Antecedents of knowledge sharing and its impact on employees' creativity and work performance. *Pak. Bus. Rev.* **2016**, *18*, 655–674. [[CrossRef](#)]
40. Earl, M.J.; Scott, I.A. Opinion: What is a chief knowledge officer? *Sloan Manag. Rev.* **1999**, *40*, 29–38.
41. Estevez, E.; Janowski, T. Landscaping Government Chief Information Officer Education. In Proceedings of the 46th Hawaii International Conference on System Sciences, Wailea, HI, USA, 7–10 January 2013; pp. 1684–1693. [[CrossRef](#)]
42. Horwitch, M.; Mulloth, B. The interlinking of entrepreneurs, grassroots movements, public policy and hubs of innovation: The rise of Cleantech in New York City. *J. High Technol. Manag.* **2010**, *21*, 23–30. [[CrossRef](#)]
43. Leslie, K.; Canwell, A. Leadership at all levels: Leading public sector organisations in an age of austerity. *Eur. Manag. J.* **2010**, *28*, 297–305. [[CrossRef](#)]
44. Abd Aziz, M.A.; Ab Rahman, H.; Alam, M.M.; Said, J. Enhancement of the accountability of public sectors through integrity system, internal control system and leadership practices: A review study. *Procedia Econ. Financ.* **2015**, *28*, 163–169. [[CrossRef](#)]
45. Fisher, M.; Keil, F.C. The Curse of Expertise: When more knowledge leads to miscalibrated explanatory insight. *Cogn. Sci.* **2016**, *40*, 1252. [[CrossRef](#)]
46. Huber, B. Experts in Organizations: The Power of Expertise. In Proceedings of the 1999 Academy of Business & Administrative Sciences (ABAS) International Conference, Barcelona, Spain, 12–14 July 1999; IbfF: Zürich, Switzerland, 1999.
47. Salas, E.; Rosen, M.A.; Diaz Granados, D. Expertise-based intuition and decision making in organizations. *J. Manag.* **2010**, *36*, 941–973. [[CrossRef](#)]
48. Hall, R.; Andriani, P. Managing knowledge associated with innovation. *J. Bus. Res.* **2003**, *56*, 145–152. [[CrossRef](#)]
49. Nonaka, I. The knowledge-creating company. *Harv. Bus. Rev.* **1991**. Available online: <https://hbr.org/2007/07/the-knowledge-creating-company> (accessed on 26 May 2020).
50. Spender, J.C. Competitive advantage from tacit knowledge? Unpacking the concept and its strategic implications. *Acad. Manag. Proc.* **1993**, *1*, 37–41. [[CrossRef](#)]
51. Seidler-de Alwis, R.; Hartmann, E. The use of tacit knowledge within innovative companies: Knowledge management in innovative enterprises. *J. Knowl. Manag.* **2008**, *12*, 133–147. [[CrossRef](#)]
52. Desouza, K.C. Facilitating tacit knowledge exchange. *Commun. ACM* **2003**, *46*, 85–88. [[CrossRef](#)]
53. Haldin-Herrgard, T. Difficulties in diffusion of tacit knowledge in organizations. *J. Intellect. Cap.* **2000**, *1*, 357–365. [[CrossRef](#)]
54. Andrews, M.; Smits, S. Using tacit knowledge exchanges to improve teamwork. *Isr J. Int. Bus.* **2019**, *3*, 16–23.
55. Al-Hawamdeh, S. Knowledge management: Re-thinking information management and facing the challenge of managing tacit knowledge. *Inform. Res.* **2002**, *8*. Available online: <http://informationr.net/ir/8-1/paper143.html> (accessed on 27 May 2020).
56. Kakabadse, N.K.; Kouzmin, A.; Kakabadse, A. From tacit knowledge to knowledge management: Leveraging invisible assets. *Knowl. Process Manag.* **2001**, *8*, 137–154. [[CrossRef](#)]
57. Berman, E.; Sabharwal, M.; Wang, C.Y.; West, J.; Jing, Y.; Jan, C.Y.; Gomes, R. The impact of societal culture on the use of performance strategies in East Asia: Evidence from a comparative survey. *Public Manag. Rev.* **2013**, *15*, 1065–1089. [[CrossRef](#)]

58. Hildreth, J.A.D.; Gino, F.; Bazerman, M. Blind loyalty? When group loyalty makes us see evil or engage in it. *Organ. Behav. Hum. Decis.* **2016**, *132*, 16–36. [[CrossRef](#)]
59. Jokubauskienė, R.; Vaitkienė, R. Assumptions of customer knowledge enablement in the open innovation process. *Econ. Bus.* **2017**, *31*, 55–69. [[CrossRef](#)]
60. Ebersberger, B.; Herstad, S.; Iversen, E.; Kirner, E.; Som, O. Analysis of innovation drivers and barriers in support of better policies. In *Economic and Market Intelligence on Innovation*; European Commission Enterprise and Industry: Oslo, Norway, 2011.
61. Beakley, J.E. Supervisor-subordinate communication: Workplace bullying and the tyrannical mum effect. *Int. J. Bus. Manag.* **2019**, *11*, 31. [[CrossRef](#)]
62. Owen, D.; Davidson, J. Hubris syndrome: An acquired personality disorder? A study of US presidents and UK prime ministers over the last 100 years. *Brain* **2009**, *132*, 1396–1406. [[CrossRef](#)] [[PubMed](#)]
63. Abernathy, C.; Hamm, R.M. Surgical intuition: What it is and how to get it. *Med. Decis. Mak.* **1995**, *16*, 424–427. [[CrossRef](#)]
64. Baylor, A.L. A U-shaped model for the development of intuition by level of expertise. *New Ideas Psychol.* **2001**, *19*, 237–244. [[CrossRef](#)]
65. Hogarth, R.M. *Educating Intuition*; University of Chicago Press: Chicago, USA, 2001.
66. Ericsson, K.A. The influence of experience and deliberate practice on the development of superior expert performance. *Camb. Handb. Expert. Expert Perform.* **2006**, *38*, 685–705. [[CrossRef](#)]
67. Ericsson, K.A.; Krampe, R.T.; Tesch-Römer, C. The role of deliberate practice in the acquisition of expert performance. *Psychol. Rev.* **1993**, *100*, 363–406. [[CrossRef](#)]
68. Lieberman, M.D. Intuition: A social cognitive neuroscience approach. *Psychol. Bull.* **2000**, *126*, 109–137. [[CrossRef](#)]
69. Plessner, H.; Czenna, S. *Intuition in Judgment and Decision Making*, 1st ed.; Psychology Press: New York, NY, USA, 2011; pp. 271–286. [[CrossRef](#)]
70. Kim, P.S.; Jin, J. Action learning and its applications in government: The case of South Korea. *Public Admin. Quart.* **2008**, *32*, 193–213.
71. Denzin, N.K.; Lincoln, Y.S. *Handbook of Social Problems: A Comparative International Perspective*; Sage Publications: Thousand Oaks, CA, USA, 2004; pp. 30–47. [[CrossRef](#)]
72. Cohen, D.; Crabtree, B. Qualitative Research Guidelines Project. Available online: <http://www.qualres.org/HomeUnst-3630.html> (accessed on 2 June 2020).
73. Charmaz, K. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*; Sage Publications: Thousand Oaks, CA, USA, 2006.
74. Saunders, B.; Sim, J.; Kingstone, T.; Baker, S.; Waterfield, J.; Bartlam, B.; Jinks, C. Saturation in qualitative research: Exploring its conceptualization and operationalization. *Qual. Quant.* **2018**, *52*, 1893–1907. [[CrossRef](#)]
75. Hennink, M.M.; Kaiser, B.N.; Marconi, V.C. Code saturation versus meaning saturation: How many interviews are enough? *Qual. Health Res.* **2017**, 1–18. [[CrossRef](#)]
76. Bryman, A. (Ed.) *Leadership and Organizations (RLE: Organizations)*; Routledge: Oxfordshire, UK, 2013.
77. Dunoon, D. Rethinking leadership for the public sector. *Aust. J. Public Adm.* **2002**, *61*, 3–18. [[CrossRef](#)]
78. Saz-Carranza, A.; Ospina, S.M. The behavioral dimension of governing interorganizational goal-directed networks: Managing the unity–diversity tension. *J. Public Adm. Res. Theory* **2010**, *21*, 327–365. [[CrossRef](#)]
79. Arundel, A.; Bloch, C.; Ferguson, B. Advancing innovation in the public sector: Aligning innovation measurement with policy goals. *Res. Policy* **2019**, *48*, 789–798. [[CrossRef](#)]
80. Saunders, M.; Lewis, P.; Thornhill, A. Analysing Qualitative Data. In *Research Methods for Business Students*; Pearson Education: Harlow, UK, 2007; p. 505.
81. LaRossa, R. Grounded theory methods and qualitative family research. *J. Marriage Fam.* **2005**, *67*, 837–857. [[CrossRef](#)]
82. Bryant, A.; Charmaz, K.; Holton, J.A. The coding process and its challenges. In *The SAGE Handbook of Grounded Theory*, 4th ed.; Sage: Thousand Oaks, CA, USA, 2012; pp. 265–289. [[CrossRef](#)]
83. Holton, A.J. The coding process and its challenges. In *The SAGE Handbook of Grounded Theory*, 1st ed.; Bryant, A., Charmaz, K., Eds.; Sage: Thousand Oaks, CA, USA, 2007; pp. 265–290.
84. David, R.; McKenna, B. Knowledge, wisdom and intellectual leadership: A question of the future and knowledge-based sustainability. *Int. J. Learn. Intellect. Cap.* **2009**, *6*, 52–70. [[CrossRef](#)]

85. Moffat, K.; Lacey, J.; Zhang, A.; Leipold, S. The social licence to operate: A critical review. *Forestry* **2016**, *89*, 477–488. [[CrossRef](#)]
86. Nandedkar, A.; Midha, V. An international perspective concerning impact of supervisor-subordinate relationship on envy, knowledge sharing, and relational conflict among employees. *J. Int. Interdiscip. Bus. Res.* **2014**, *1*, 8.
87. Yang, J.T. Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tour. Manag.* **2007**, *28*, 530–543. [[CrossRef](#)]
88. Ho, C.T. The relationship between knowledge management enablers and performance. *Ind. Manag. Data Sys.* **2009**, *109*, 98–117. [[CrossRef](#)]
89. Inkpen, A. Learning, knowledge acquisition, and strategic alliances. *Eur. Manag. J.* **1998**, *16*, 223–229. [[CrossRef](#)]
90. Pan, S.L.; Scarbrough, H. Knowledge management in practice: An exploratory case study. *Technol. Anal. Strateg.* **1999**, *11*, 359–374. [[CrossRef](#)]
91. Ali, M.; Usman, M.; Pham, N.T. Leader's envy and knowledge hiding in universities in Pakistan. In Proceedings of the 15th Annual International Bata Conference for Ph. D. Students and Young Researchers, Islamabad, Pakistan, 6–7 November 2019; p. 22. [[CrossRef](#)]
92. McClelland, D.C. Testing for competence rather than for "intelligence". *Am. Psychol.* **1973**, *28*, 1–14. [[CrossRef](#)] [[PubMed](#)]
93. Shan, A. The CSS Examination and Initial Training. Available online: <https://www.thenews.com.pk/tns/detail/566446-css-examination-initial-training> (accessed on 25 May 2020).
94. OECD. *OECD Integrity Review on Brazil: Managing Risks for a Cleaner Public Service*; OECD Public Governance Reviews; OECD Publishing: Paris, France, 2012; pp. 1–43. [[CrossRef](#)]
95. OECD. *ESCAP-OECD Handbook on Indicators for Trade Facilitation*; ESCAP, 2017; Available online: <https://www.unescap.org/resources/escap-oecd-handbook-indicators-trade-facilitation> (accessed on 2 June 2020).
96. Parry, K.W.; Sinha, P.N. Researching the trainability of transformational organizational leadership. *Hum. Resour. Dev. Int.* **2005**, *8*, 165–183. [[CrossRef](#)]
97. Yoon, K.; Kim, C. Components of expertise of public officials in emergency management in Korea: An exploratory study. *Int. Rev. Public Adm.* **2016**, *21*, 37–56. [[CrossRef](#)]
98. Seyal, F.H. Towards a green Pakistan: A behavioral approach. *Pak. J. Stat.* **1997**, *13*, 149–162.
99. Rieckmann, M. *Education for Sustainable Development Goals: Learning Objectives*; UNESCO Publishing: Paris, France, 2017.
100. Moussa, M.; McMurray, A.; Muenjohn, N. Innovation and leadership in public sector organizations. *J Manag. Res.* **2018**, *10*, 14–30. [[CrossRef](#)]
101. Institute of Labor Economics. *Analyzing Female Employment Trends in South Asia*; World Bank Group: Bonn, Germany, 2020; p. 3.



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