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Effects of Organizational Structure and Job Expertise on the relation between Physical Knowledge Management Resources and Knowledge Management Capability: A Resource-Based View of Pakistani Telecom Sector

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Abstract
Knowledge Management (KM) is progressively supported for refining innovation and dexterity in policy development besides service delivery. This research classifies the technological factors swaying KM, conjectures their interface effects grounded on the resource-based view. Physical resources capitalized explicitly for promoting KM are hypothesized to relate with organizational and human resources for influencing organizational KM capability in apprehending, allocating, smearing and producing knowledge. Having a sample size of *N=300*, this study resolves to be contributing to any organization in terms of refining the formation of knowledge capabilities. The data collected specifies that employees' job expertise improve the efficacy of physical KM resources while organizational structure has an overturning effect (with respect to the Pakistani Telecom Sector). Expounding theses collaboration effects has significant insinuations for the theoretical consideration of KM in the telecom sector so long as empirical evidence for the performance effect of KM informs management. This research and its findings can support managers in growing the learning efficiency of their organizations by identifying and concentrating on their organizational and human resources through apposite expansion of their physical knowledge management resources.
Keywords: Knowledge Management Technology, Knowledge Management Capability, Organizational Structure, Job Expertise

1. Introduction

Knowledge proposition is essential for policy-making (Blackman, Kennedy, Burford & Ferguson, 2013; Kim & Lee, 2013) and public services. Knowledge management (KM) frameworks methodically describe the course of discovery, capture, sharing, and application of knowledge in an organization (Attour & Barbaroux, 2021; de Castro Peixoto et al., 2022; Khatun et al., 2022; Riad Shams & Belyaeva, 2019). Knowledge management is established to be contributory in policy development (Anshari, Syafrudin, Tan, Fitriyani & Alas, 2023), law enforcement (Mayer, Romeu & Stumptner, 2023), crisis as well as disaster management (Oktari, Latuamury, Idroes & Sofyan, 2023), health and human services (Alboliteeh, Alrashidi, Alrashedi & Gonzales, 2023) and electronic governance (Al-Taee & Flayyih, 2023). Consistent knowledge capture retains intellectual capital; facilitates employee-retention and adjustment of organizational memory (Ali, Hussin, Flyyih & Haddad, 2023) while minimizing disruption to the running of activities. KM mitigates certain negative impacts of employee turnover that are frequently unavoidable (Pee & Kankanhalli, 2015).

As organizations progressively use information technology for collaborating amongst them, there is a bigger necessity for developing robust capabilities in allocating, smearing and generating knowledge (Pee & Kankanhalli, 2015). The attainment of wholly categories of organizational networks are contingent heavily on the abilities of the participating groups/teams' regarding sharing and applying of valued knowledge (Olan, Arakpogun, Suklan & Nakpodia, 2022). These systems fast-track the knowledge-flow and generation contained by crosswise teams that place a better claim on an organizational knowledge management capability. Academics and specialists agree that capitalizing upon knowledge management technology and inspiring employee-involvement through providing knowledge management encouragements remain vital progressions in the emerging knowledge management capability (Gui, Lei & Le, 2022). However, it is gradually predictable i.e., having influence of these Knowledge Management-particular investments may be depending relying on organizational and social perspectives.

This research study suggests that participating in Knowledge Management domains, expands the Knowledge Management capability, which clearly improves the complete organizational performance. Knowledge Management capability is theorized being improver and an influential collection of a firm's capabilities pertaining to knowledge capture, creation, application and sharing (Pee and Kankanhalli (2015). They used a model that linked technology, organizational and human resources in augmenting the Knowledge Management capability that enhanced the organizational performance of public-sector companies. This research shall adapt the model tested by Pee and Kankanhalli in private sector telecom companies of Pakistan. Moreover, this research study shall only focus on the knowledge part and knowledge capability of the organizations and not the subsequent effect on organizational

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performance, as numerous studies have been done in the past regarding KM's influence on organizational performance, but as far as Pakistani organizations are concerned, much is yet to be investigated regarding the link between technology, organizational and human resources and knowledge management.

2. Literature Review

2.1. Resource-Based View (RBV)

Resources-based View (RBV) describes the prominence of employee resources, competences, growth and the overall efficiency of the organization, supporting (Barney, 1991; Wernerfelt, 1984) the corporate survival. Firms exploit the group of resources being possessed and the ones that are accessible. Barney (1991) detailed three essential categories of resources recognized in resource-based view are organizational, human resource and the physical. Physical resources remain characteristically visible or tangible. Organizational resources include; the hierarchy, planning, co-ordination and management systems. Human resources comprise of; employee's experience, judgment, insights and social relationships.

A study implementing the resource-based view distinguishes that resources are hardly self-reliant while value-generation. Performance outcomes (Estensoro, Larrea, Müller & Sisti, 2022) of resources involving information system are influenced by on how they are corresponding to human resources and organizational temperaments. Kamardi & Mahdiraji (2022) state that resources can have either an ornamental or a destroying effect on one another and an augmenting relationship develops when the occurrence of one resource reduces the impression of another. RBV originally instigated from the private sector.

RBV recommends that resources being converted into productivities of bigger value addition through numerous competences (Barney, 1991; Grant, 1991) in organizing resources. Competences are viable and repeatable outlines of activities in the utility of resources to produce value addition in the methods of products or commodities and services. Competence and Capability incorporates the concept of organizational capability or competency and is entrenched in skills as well as procedures or processes. It comprises of skills such as managerial or supervisory ability or else procedures such as information and knowledge sharing. Generally, Resource-Based View postulates that (Pee & Kankanhalli, 2015) resources mark the expansion of capabilities or competences are probable towards advance organizational or firm efficacy. Hence, this approach of resource-based value shall be taken forward in this research for testing the hypothesis.

2.2. Key Resources in Knowledge Management

2.2.1. Physical Resources

As already reviewed, researchers have distributed physical resources into two types; knowledge management technology and non-information technology (IT), knowledge management investment. The obtainability of information and communiqué technology enabling numerous knowledge management activities is the ability as discussed by Shair et al., (2022a) and Polyakov et al., (2022). Knowledge management technology pertains to physical resource which refers to the availability or accessibility of information and communiqué or communication technology, enabling and facilitating to capture, creation, application and sharing of knowledge. Technology will remain a key enabler of traditional and modern and contemporary knowledge management ingenuities typically involving the implementation or execution of technologies like; electronic knowledge depositories or repositories, expert manuals or directories (Pee & Kankanhalli, 2015) and discussion forums. Technology provides the virtual podium or platform for knowledge management for sustaining affordable efficiency in a manner not simply interchangeable by other physical resources. Another physical resource; the non-Information Technology investment denotes towards non-technological monetary reserves in supporting knowledge management. These include as detailed by (Dostál, 2022) training, rewards and helpdesk support. Rewards will kick-start Knowledge Management (Sa'adah & Rijanti, 2022) by motivating workers or employees to share their knowledge, however training and giving helpdesk support warrant that employees have the pertinent skills to participate in knowledge management (Chatarina & Rehatalanit, 2023).

2.2.2. Organizational Structure

The prescribed distribution of job-tasks and managerial executions for controlling and integrating job-duties is fundamentally the structure of an organization (Rehman, Jiang, Abbas & Comite, 2022), categorized as an organizational resource. Firm structure commands the recognized channels over which, where knowledge streams in a firm and an inflexible structure (Pee & Kankanhalli, 2015) can deter the course of knowledge. An alternating dynamic element for being pro-active is the growth of a germane organizational structure (Davenport, 1998). It denotes to a group of pre-determined roles and tasks of managerial leaders as the multi-disciplinary groups, like; professional learning communities (PLCs). Innovative systems of newfangled bendable organizational structure that permit employees in having additional independence are preferred. One of the best-known provisions in this domain was proposed by Nonaka and Takeuchi (1995) as the organizational structure of hypertext.

For ages, various experts forecasted the enlargement of newfangled practices of organization that enable creation of new ideas, advance organizational knowledge, maturing its employees' skills for surviving in the multifaceted organizational environment by familiarizing to instability (Lee, 2022). The aim of this research study is the examination of the relations amongst physical Knowledge Management resource and knowledge management capability in an organization, while organizational structure mediates the relation. Organizational structural is ought to be studied and understood through its various plans in terms of knowledge management efficiency while identifying the main organizational stimulators and hindrances to knowledge management. This research also frames the assumptions on the understanding that an organic structure shall enhance the effect of physical knowledge management resources on the knowledge management capability of an organization, as proved by Lee (2022).

2.2.3. Job Expertise

Specified Knowledge has the level and range besides skills of workers or employees and their job expertise as verified by Kankanhalli et al., (2005) and categorized as a human resource of an organization (Wigg, 1993; Shair et al., 2021). Bottomless and varied expertise is an acute feature of production defining the success of Knowledge Management.

2.2.4. Knowledge Management Capability

Placed upon notion of capability in RBV, knowledge management capability is an organization's capacity to exploit and deploy its available resources for expanding the scope of knowledge. At the organizational-level, knowledge management capability is regarded as the improver or determinative summation of the organizational ability for capturing, sharing, applying and creating knowledge (Chen, Luo, Chen & Guo, 2022).

Knowledge-capture includes; collection, organization and storage (Pee & Kankanhalli, 2015). Explicit knowledge is the electronic knowledge depositories or repositories; management systems pertaining to document proposition, whereas tacit form is the less-accessible knowledge that is disseminated between employees through expert directories connecting knowledge seekers towards experience employees. Knowledge-sharing is related to the knowledge-flow within the organization. It is simplified properly by imbedding discussion forums, mentorship programs and nurturing of social networks. Knowledge application emphasizes upon execution of current knowledge assets for improving the end products. Knowledge-creation denotes to the formation of newfangled knowledge (Pee & Kankanhalli, 2015).

Explicit and tacit knowledge transformation in terms of internalization, externalization, socialization and combination is an essential mechanism through which knowledge remains shaped in organizations, as investigated by Nonaka and Takeuchi (1995). Individual communication and association skills are also necessary for producing open, critical and mindful thinking of experiences required for knowledge-creation.

Despite of the fact that dissimilar organizations focus differently on capturing, sharing, application and creation of knowledge, such efforts are ought to be regarded as synergistic reasonably than challenging at the organizational level. Organizations that surpass in all the above mentioned four activities profit from the super-additive importance of synergies as well as performing better than competitors. Consequently, capability is to be conceptualized in a system, which involves the synergy as primary feature.

With the above literature survey regarding the variables of this research that are based upon the resource-based view and prior knowledge management studies, it is proposed that organizational investment in the physical KM resources for promoting KM, influences KM capability. Hence, in sum, it is hypothesized that:

H1: Physical KM Resources are positively related to knowledge management capability.

Contemporary research involves the measurement of physical knowledge management resources through the dimensions below, as proposed by Pee and Kankanhalli (2015):

2.2.5. Knowledge repositories

A Knowledge Repository is an online database that methodically captures, systematizes and classifies knowledge-based info (Gray, 2001). Knowledge repositories are best regularly private databases that accomplish organizational and exclusive information (Khashman, 2022). Key features of knowledge repositories are; centralization, content management, cost savings, access control and record management.

2.2.6. Expert directories

Expert directories are the systems that sustain the altercation of tacit knowledge amid employees, being the key phase in corporate knowledge management (Kankanhalli, Tanudidjaja, Sutanto & Tan, 2003). The part of the expert directory is to deliver a tool/place, which is characteristically on the organizational intranet (Guzman, Zuluaga-Ortiz & Donado, 2022). Employees through this learn the knowledge possessed by each, required for achieving organizational goals.

2.2.7. Lesson-learned systems

Applying an effective lessons-learned system is the main constituent of knowledge management. This system is also the prime driver for incessant performance development (Sharif, Zakaria, Ching & Fung, 2005). The Lessons Learned system strategy is founded on an assessment of the employee's current lesson learned abilities, a study of the work

approaches, organizational structure and knowledge of actual lesson learned systems smeared in established learning organizations (Shair & Majeed, 2020; Gamage & Ekanayake, 2022).

2.2.8. Rewards

Knowledge-based HRM is a combined HRM practice (Delery & Doty, 1996) envisioned to attract, remember besides inspiring employees to share, create and utilize knowledge. Based on this suggestion that sprawling knowledge-based HRM practices into a comprehensible reward package is likely to enhance employees' dedication towards their job tasks (Fulmer & Li, 2022).

2.2.9. Knowledge Management Training

Knowledge-based training is a SHRM tool involving steady growth of the depth besides breadth of employees' knowledge and expertise (Martín-Núñez & Núñez-Del-Rí, 2022). Recognizing training for catering explicit wants; that finally, safeguard continuous employee development, is the general purpose of KM Training.

2.2.10. Helpdesk Support

The help desk technology occupation has developed in prominence as information technology (IT) has flourished throughout the organization. The principal purpose of the help desk is to determine problems linked to IT in the organization. The IT workforce in the help desk is ought to be familiar with the information systems, applications as well as the technologies maintained (Capone et al., 2022; Shair et al., 2022b).

2.3. Organizational Structure, Physical KM resources, and KM Capability

The literature evaluation till now specifies that organizational structure is a noticeable organizational resource that can impact KM Capability. Thus, perceiving decentralized nature of the private sector organizations, it is hypothesized:

H2: Organizational structure has a positive effect on KM Capability

Organizational structure is in two forms; centralization and decentralization (Deng, Zhou & Yan, 2023). Centralization denotes to the median of decision-taking authority and control in an organization, to be residing with the top-management only. Decentralization is an added penetrable structure that enables the knowledge flow at all levels of hierarchy. While, private organizations are characteristically more decentralized, still one cannot be sure what the real managerial practices of the leaders are in terms of formalization and decentralization. It is consequently, pertinent to evaluate the progress of knowledge management capability diverging with the degree of centralization or decentralization, or not. Nevertheless, it is hypothesized that the bearing of physical knowledge management resources upon capability is boosted by the organizational structure (assuming the structure of the private telecom organizations to be decentralized):

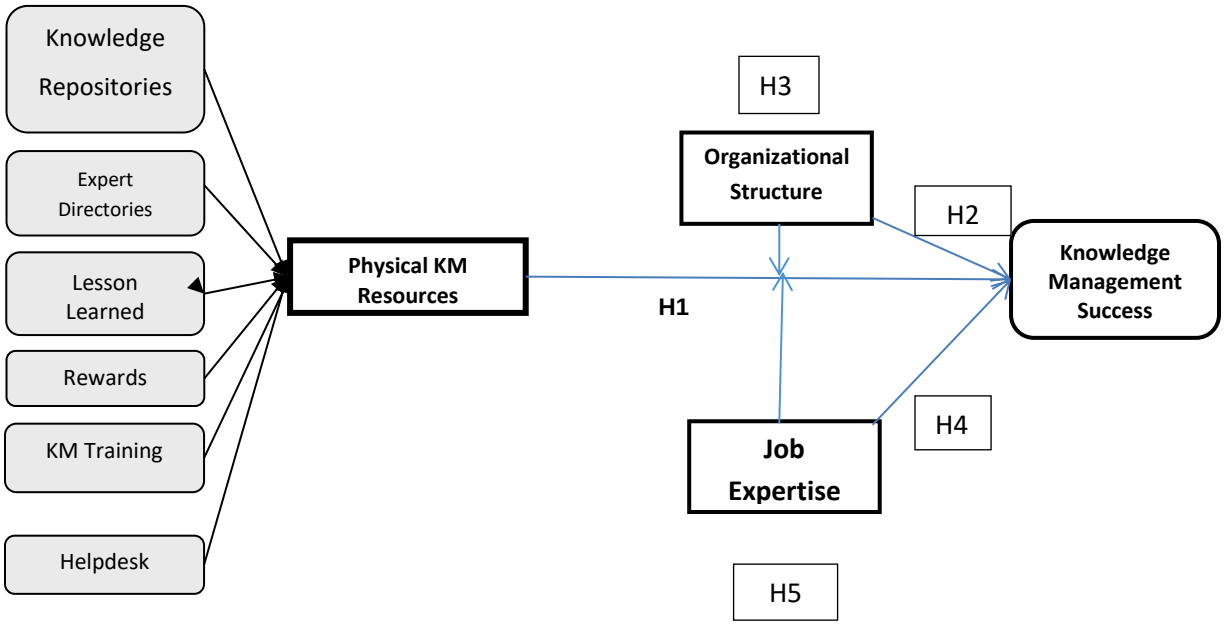

Figure 1. Conceptual Framework

H3: The positive effect of physical KM resources is enhanced by the organizational structure

Job expertise is a significant human resource related to KM. As identified in the literature survey, it is hypothesized:
H4: Job Expertise is positively related to KM capability
With sturdy job expertise of employees as an effort, the usage of physical knowledge management resources remains more probable to upshot in more prosperous knowledge capture, sharing, application and creation. Hence, the fifth hypothesis is as below:
H5: The positive effect of physical KM resources is enhanced by job expertise

3. Methodology

A self-administered survey over and done with questionnaires was led for data collection on organizational members' discernments of the four constructs: physical KM Resources, organizational structure, job expertise and knowledge management capability. SPSS (22.0V), analysis was achieved for analyzing the conjecture of this framework.

3.1. Data Collection and sample

Before making the questionnaire, the researcher discussed the main constructs of the research with the concerned managers of the telecom companies. This way it was learnt whether the managers be able to comprehend terms like; KM resources, centralization, KM capability, etc., for achieving maximum and correct response to the level of this research. Questionnaire was made according to the selected scales. Sample population for this research comprises of employees from all managerial levels of the four telecommunication companies functioning in Pakistan. The questionnaire has two parts; one containing demographic explorations and second involving topic of this research. There were in total nine questions with their separate items. 80 questionnaires were distributed in each organization (320 in total). 300 were carefully chosen for hypothesis testing after discarding 20 due to flawed response.

3.2. Scales

For measuring electronic knowledge repositories (EKR), the scale proposed by Gray (2001) will be used. EKR measurement has four items. For measuring expert directories (ED), the scale directed by Kankanhalli, Tanudidjaja, Sutanto & Tan (2003) is used having three items. Lesson learned system (LLS) is tested through the scales described by Sharif, Zakaria, Ching & Fung (2005) with three items. For measuring rewards (REW), the scales proposed by Sanchez, Marin and Morales (2015) will be with three items. KM training (KMTRA) were also be measured by the scale introduced by Sanchez, Marin and Morales (2015) having three items. For measuring help desk support (HPDESK), the scale explained by Göker[a] and Berghofer (1999) is used with six items. Organizational structure (OS) is measured with the scale by Davenport (1998) and Nonaka and Takeuchi (1995) with four items. Job expertise (JE) is evaluated over the scale suggested by Dubois and Shalin (2000) also with four items. KM capability (KMC) has been tested on scales introduced by Pee and Kankanhalli (2015). KM capability evaluation for this research consists of 4 items.

3.3. Descriptive Analysis

Table 1 shows the number of items for each variable used in this research and their respective validity ratios according to Chronbach's alpha being greater than 0.7. Hence, all variables are valid for hypothesis testing in this research.

Table 1: Validity Test

Variables	*Chronbach's alpha*	*Items*
Electronic Knowledge Repositories	0.743	4
Expert Directories	0.853	3
Lessons Learned System	0.838	3
Rewards	0.823	3
KM Training	0.829	3
Helpdesk Support	0.952	6
Organizational Structure	0.741	4
Job Expertise	0.704	4
KM Capability	0.715	4

As tabulated overhead, the Cronbach alpha coefficient values array from 0.704 to 0.952. Thus, it is seen that the internal consistency/reliability of coefficients of the scales used in this research is justly high. Henceforward, the results to be got with these dimensions of physical knowledge management resources and other variables can be reliant on upon to a larger degree.

Table 2 shows the descriptive statistics of this research. Descriptive statistics with means, standard deviations, skewness and kurtosis amongst all study variables were calculated. All the research variables retain an acceptable level of internal consistency reliability.

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Skewness	Kurtosis
EKR	4.234	0.824	-1.294	1.718
ED	4.330	0.820	-1.566	3.011
LLS	4.320	0.815	-1.567	3.061
REW	4.340	0.820	-1.565	3.015
KMTRA	4.316	0.806	-1.586	3.196
HPDESK	4.323	0.874	-1.570	2.591
OS	4.242	0.822	-1.314	1.792
JE	4.087	0.492	-1.964	7.705
KMC	4.089	0.558	-1.585	5.589

4. Empirical Results and Discuss

4.1. Regression Analysis

Table 3 shows the positive relation amid the independent variable physical knowledge management resources (PKMR) and dependent variable knowledge management capability (KMC), proving *H1* of this research as affirmative. The total calculated sample with the significance $p < 0.05$, come under the standard range constructing this relation positive.

Table 3: Direct Relationship

	Std. Error	Beta	T - Value	R Square	P - Value
PKMR	0.034	.455	9.103	0.216	0

Dependent Variable: KMC

Results display a constructive relation between the strategic dimension of physical KM resources and the capabilities of KM practices (Pee & Kankanhalli, 2015).

Table 4 shows the productive relation among independent variable organizational structure (OS) and dependent variable knowledge management capability (KMC), demonstrating *H3* of this research as positive. The all-inclusive intended specimen besides the significance $p < 0.05$, fall in the standard range making the test positive.

Table 4: Direct Relationship

	Std. Error	Beta	T - Value	R Square	P - Value
OS	0.035	.406	7.723	0.168	0

Dependent Variable: KMC

These results depict that organizational structure relating the enterprise is expected to be shared by employees. Hence, denoting that the employees are empowered enough to influence the KM capability (Rafi, Ahmed, Shafique & Kalyar, 2022). Accordingly, it is crucial for recognizing organizational structure for knowledge management.

Table 5 displays the results of the linear regression analysis of the effect of physical knowledge management resources on knowledge management capability (KMC) while interacting with organizational structure (OS). As per the negative values of *Beta* and *t* for organizational structure shown and $p > 0.05$ meaning insignificance of 0.994, it is clear that nonetheless, physical knowledge management resource have a straight bearing on knowledge management capability, the same relation is suppressed in the presence of organizational structure. Henceforth, *H4* of this research is confirmed negative, as the supposed variable – organizational structure, basically has no or negative role in the relation among physical KM resources and knowledge management capability.

Table 5: Interaction between Physical & Organizational Resources

	Std. Error	Beta	T - Value	R Square	P Value
PKMR	.325	.457	4.380	0.216	0
OS	.071	-.011	-.052	.215	.994

Dependent Variable: KMC

It can be concluded with the above result regarding the effect of organizational structure on the main hypothesis of this research that it is pertinent to assess knowledge management capability according to the extent of centralization or decentralization of the organizational structure.

Centralized organizations sustaining a bureaucratic mechanism restrict technological aspect of knowledge management. Therefore, verification of compliance with decision makers outweighs the perceived benefits associated with knowledge management incentives, training and helpdesk support. This upsets an employee's urge to participate in the process. Hence, physical knowledge management resources might be at times ineffective towards the development of knowledge capability in bureaucratic structures (Pee & Kankanhalli, 2015).

Table 6 shows the positive relation between independent variable job expertise (JE) and dependent variable knowledge management capability (KMC), showing *H4* of as positive. The projected sample alongside the significance $p < 0.05$, come under the standard range proving the hypothesis to be positive.

Table 6: Direct Relationship

	Std. Error	Beta	T - Value	R Square	P - Value
JE	0.018	.954	62.712	0.95	0

Dependent Variable: KMC

Job expertise remains the imperative source of knowledge in organizations (Anshari, Syafrudin & Fitriyani, 2022). Employees rate their expertise, on-job training and experience and knowledge gained through informal sources, like; 'special interest groups' over their formal education. Employees ensure definite kind of additional connected areas for completing job tasks (Pee & Kankanhalli, 2015). This in turn increases the KM capability of an individual employee and the organization on the whole.

According to the positive *Beta* and *t* values for job expertise presented in Table 7, it remains established that physical knowledge management resources are having a straight control over knowledge management capability, strong job expertise of the employees shall enhance this linkage.

Table 7: Interaction between Physical & Organizational Resources

	Std. Error	Beta	T - Value	R Square	P Value
PKMR	.011	.021	1.134	0.216	0.260
JE	.021	.943	53.927	.929	.000

Dependent Variable: KMC

H5 of this research is positive demonstrating that the physical knowledge management resources influence capability whenever employees necessitate strong job expertise (Pee & Kankanhalli, 2015).

4.2. Discussion

An organizational structure tends to repress the influence of physical knowledge management resources upon the knowledge management capability. Hence, job expertise (as a human resource) was established for manipulating the physical knowledge management resources over the knowledge management capability. It is studied that physical Knowledge Management resources aid organizations for constructing a sturdier knowledge management capability when there are satisfactory organizational and human resources (Pee & Kankanhalli, 2015).

In an extra a centralized and formalized organization, physical knowledge management resources are not as much operative on knowledge management capability (Pee, Kankanhalli, 2015). It is presumed that in particular organizations (though privately registered), centralization besides formalization might be essential for plummeting the dangers of venality, nonetheless, a less drastic approach is necessary, which is that for enabling the knowledge flow over an unbending organizational structure, systems should improve flexibility as an alternative. A formal hierarchical structure should be combined with a new self-organizing structure that encourages knowledge-flow (Nonaka &

Takeuchi, 1995). Like, in a matrix-structure, wherever employees require dual part in the organizational hierarchical structure as well as some total of cross-department teams, functioning alike can raise cross-boundary relationships and arouse the sharing, application and creation of knowledge.

Job expertise is imperative for knowledge management for ensuring the success of physical resources (Pee & Kankanhalli, 2015). Employees' learning is probable to be unremittingly nurtured through training programs as well as improved compensation plans. Effective Training & Development programs necessitate detailed examination for classifying instructional objectives besides training principles. Numerous training methods that are smeared for associating dissimilar needs ensemble the physiognomies of each employee in terms of aptitude, inspiration, boldness and expectancy (Pee & Kankanhalli, 2015). Afterwards training, appraisals should be piloted for evaluating the effectiveness of the T & D program and for producing feedback for reviewing it for future developments.

5. Conclusion and Future Research

The effective contributions of human resources in organizations have to be considered while the businesses capitalize upon their physical knowledge management resources for solidifying their knowledge management capability. This shall enable managers to avoid taking a one-dimensional view as well as adapting the KM application to the intrinsic physiognomies of their organizations (Pee & Kankanhalli, 2015). This is probable to upsurge the success of KM that has mainly created from the private sector. Assumed the knowledge-intensive nature of the corporate sector organizations, the worth of evolving a robust KM capability is foreseen. Other than refining an organization's efficiency, KM is also compatible for undertaking the tests of human capital loss resulting to employee turnover and enlarged knowledge stock and movement owing to progresses in IT. The projected model of KM resources; organization-based, HR and capability alongside their capacities, assist in doing additional inquiries into the frameworks conceptualized for determining whether KM is operational in addressing the existing and upcoming knowledge-related challenges or not.

It is suggested for future authors investigating on this framework to segregate the physical KM resources into KM technology and non-IT resources. This way a researcher shall analyze the individual effect of these classifications of physical resources upon knowledge management, while interacting with structural and human resources; subsequently, confirming the connection of technology and knowledge management in addition to the association of the non-IT resources with KM while interacting with organizational and human resources, individually. As this was the first time such a framework was applied on Pakistani organizations, the author decided to confirm and establish a general mechanism related to KM, organizational and human resources and knowledge management it for future management science researchers. But the subsequent studies should focus on precise and accurate frameworks segregating the two types of physical KM resources. Moreover, other organizational and human resource features such as; top management support, human capital, culture, experience, etc., can be taken for investigating their effect on the positive relation between physical KM resources and knowledge management capability and success. Lastly, it is suggested to conduct the same research with these or more accurate variables on the public sector organizations of Pakistan, as knowledge management being an integral part of modern-day business mechanisms is very much active in the public segment as well.

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