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Unveiling Cultural Dynamics in Knowledge-Sharing Organizations: A Study from Open and Distance Learning (ODL) Institutions

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Abstract

The study aims to explore the culture and knowledge-sharing practices adopted by organizations and how organizational culture facilitates knowledge sharing among individuals. Furthermore, this study tested the SECI model of knowledge sharing within and among organizational units to identify the level of SECI model practiced in the organization. Using a qualitative research approach, this study investigated the role of culture in knowledge sharing in open and distance learning institutions through semi-structured interviews with 10 faculty members. Thematic analysis revealed that the creation and sharing of knowledge can be leveraged through its systems, processes, and structure, which make the culture of an organization a significant determinant of knowledge sharing. The study's findings have implications for educational institutions and other stakeholders.

Keywords: Open and Distance Learning (ODL) institutions, SECI (Socialization, Externalization, Combination, Internalization) model, Knowledge sharing, Culture

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1. Introduction

The emergence of a knowledge-based economy has forced organizations to reconsider knowledge as a significant source of competitive advantage that leads to long-term success. (Nonaka & Takeuchi, 1995). Researchers have proclaimed that creating, sharing, and transferring knowledge is the essence of what organizations exist for, and culture acts as a facilitator for this knowledge-sharing process (David & Fahey, 2000). Among all organizational resources, knowledge is the most critical intellectual resource that is treated as a significant factor of production for organizations (Sohail & Daud, 2009). The only meaningful resource in the knowledge economy (Rowley, 2000). The survival of organizations depends on innovation, which depends on knowledge workers; successful organizations are those that value their knowledge assets, share them, and create continuous knowledge (Lee, 2018).

The identification of the culture type practiced in the organization is essential to analyze which culture type is facilitating the knowledge sharing (Ng, 2023) and how the SECI model of Nonaka (1994) is being practiced in the organizations. Among various culture types, organizations may be practicing more than one culture, i.e., sub-cultures that are practiced because of disagreements between departments on following a specific culture (Cacciattolo, 2014). Organizations with a culture of facilitating knowledge sharing among individuals are not only creating and sharing the knowledge, but they are also retaining the individuals with tacit knowledge that is lost as the individuals leave the organization (Gupta & Govindarajan, 2000).

Due to its characteristics, knowledge is a rare, valuable, inimitable, and non-substitutable asset; therefore, it plays a significant role in achieving sustainable competitive advantage (Lee, 2018). The role of knowledge as a strategic asset is evident in literature. As with other organizations, knowledge sharing and the role of culture in facilitating knowledge creation and transfer are equally crucial for educational institutions. Educational institutions are considered reservoirs of knowledge and providers of knowledge to students (Al-Kurdi et al., 2018). The higher education institutions and universities are said to be in the education business, which are facing challenges in managing their knowledge sharing process (Goddard, 1998).

As knowledge creators and disseminators, educational institutions must manage knowledge resources. Knowledge sharing in educational institutions is crucial because intellectual capital is the dominant resource that can help them create a competitive advantage over other educational institutions when strategically managed (Budur et al., 2024). Access to resources, a facilitating environment, valuing knowledge as an asset, connectivity, norms, values, and the processes of

knowledge creation affect knowledge sharing among faculty members (Rowley, 2000). Among the various organizational factors affecting knowledge sharing in educational institutions, the nature of knowledge, working culture, and social interaction play a significant role (Sohail and Daud, 2009). Knowledge sharing in universities and educational institutions is vital, as academic staff are a storehouse of tacit knowledge; they possess knowledge and can share and generate new knowledge for the organization and community (Jain et al., 2007).

1.2 Research Gap and Objectives

With the advent of information and communication technologies, open and distance learning has become an emerging field of education not only worldwide but also in Pakistan, with the projected increase in its users to 7.1 million by 2029 (Statista, 2025). Universities are now shifting and blending their education systems through distance learning. In Pakistan, studies have explored the cultural and knowledge-sharing aspects of organizations; few have investigated knowledge sharing in higher education, but none in ODL institutions. This study aims to identify the impact of culture on knowledge sharing in the distance learning institutions of Pakistan.

The study aims to explore the culture and knowledge sharing in Open and Distant Learning (ODL) Institutions in Pakistan; in this context, the study proceeded with the following objectives:

- 1) To identify the prevailing organizational culture and sub-culture (if any) in the ODL institution.
- 2) To explore the perceptions of the faculty members about knowledge and knowledge sharing within the institution.
- 3) To identify the level of the SECI model practiced in the organization.
- 4) To explore the role of prevailing culture and/or sub-culture in facilitating knowledge sharing among the faculty members of the ODL institution (inter-unit and intra-unit)

This study considers only the impact of organizational culture on organizational structure, control mechanisms, decision-making, communication systems, organizational tasks, team orientation, conflict management, and environment on knowledge-sharing activities, specifically in ODL institutions. Other sections of the paper include a literature review on knowledge sharing and culture types, the relationship between organizational culture and knowledge sharing, and the empirical testing of these concepts, followed by data and methodology in Section 3. Results and discussions are presented in Section 4, and Section 5 concludes the study.

2. Literature Review

With the emerging concept of knowledge-based economies, the terms knowledge, knowledge sharing, and learning organizations have gained significant momentum. Organizations are now rethinking and redefining their resources and assigning a key role to knowledge as one of the critical resources. Among the organizational resources, knowledge is considered a strategic resource (Lee, 2018). If successfully transferred, it leads the organizations towards success. The effectiveness of knowledge is its transfer among employees and the creation of new knowledge (Nonaka and Takeuchi, 1995). Organizations with a knowledge-sharing culture facilitate the transfer and generation of new knowledge among employees (Al-Kurdi et al., 2018).

2.1 Knowledge

Knowledge has been defined differently in the literature; experience and belief-based understanding (Allee, 1997) generalization that people apply to interpret and manage the world around them (Wiig, 1997). Knowledge can be expressed as organized, analyzed information used for problem-solving and decision-making. Nonaka (1994) described knowledge as a specific entity that resides in the minds of individuals and is conceptualized differently within organizations based on the structures of the organizations. The traditional conception of knowledge was disembodied, formal, and abstract information (Blackler, 1995) that is static and non-human. While the modern concept of knowledge is a dynamic social process of justified human personal beliefs (Nonaka et al., 2000). The critical point here is understanding, creating, and managing these forms of knowledge as a strategic resource. Some studies on defining knowledge have stated it as 'a strategic resource embodied in the organizational entities, its culture, policies, procedures, routines, and the human resources(Grant, 1996) while opponents of this definition expressed it as part of a learning community, negating it as an organizational resource (Brown & Duguid, 1991, Brown et al., 1989). Supporting the views of both, Gemino et al. (2015) defined knowledge as part of a community based on activities, context, and the culture to which it belongs.

Summing up the literature on defining knowledge, It is a multidimensional, multilayered concept that is context-based, affected by the culture and the activities of the organizations and the communities where it is developed. There is also a need to distinguish between knowledge and organizational knowledge, and between culture and organizational culture. Knowledge is what an individual understands and interprets about the world; what an individual possesses in the form of tacit

or explicit knowledge, while organizational knowledge is "the shared individual knowledge". When knowledge becomes part of groups and organizations, individuals transfer and share it, creating organizational knowledge.

2.2 Knowledge Sharing and SECI Model

Knowledge sharing is a mechanism of transferring individual knowledge into group and the organizational knowledge; a process with sequenced events at a time involving at least two parties (individuals or groups), i.e. the donors of knowledge and the learners sharing knowledge (Hendriks, 2004). Knowledge sharing process requires the knowledge of both the parties, i.e., the bringing party and the obtaining party, to make it useful and successfully transferred for the creation of new knowledge (Blackler, 1995).

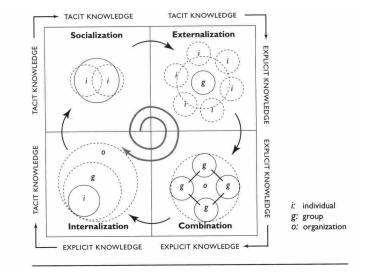
As a process of social interaction, knowledge sharing is necessary to transfer knowledge from individuals' minds to processes and other people within organizations, i.e., to transfer tacit and explicit knowledge. Employees interact, discuss, find solutions for the problems, and create new knowledge (tacit or explicit) through the knowledge sharing process (van den Hooff & De Ridder, 2004). Nonaka (1994) presented two dimensions of knowledge sharing in the organizations i.e. tacit and explicit knowledge. Tacit knowledge is context-based, personal, difficult to share and formalize, expressed through emotions, actions, values, attitudes, and experiences of the individuals (Nonaka & Konno, 1998). It is referred to as a continuous knowing activity, linked with individual technical and cognitive skills (Nonaka & Konno, 1998), unarticulated knowledge that is either inherited physical functioning or the creative thinking of individuals (Pauleen & Gorman, 2012).

Another type of knowledge explained by (Nonaka, 1994) as organizational knowledge is explicit, articulated knowledge residing in the routines, processes, and documents of the organizations. It is codified and can be expressed in terms of numbers and words by individuals (Campbell, 2009). Although explicit knowledge is openly expressed in organizations, its effectiveness still depends upon the communication system and organizational culture of knowledge sharing. Organizations need to understand and articulate both types of knowledge for knowledge creation and sharing; explicit knowledge without interaction with tacit knowledge loses its meaning (Nonaka et al., 2000). The knowledge-sharing process facilitates the interaction between tacit and explicit knowledge and enables the transfer and creation of new knowledge.

SECI model by (Nonaka, 1994) identified interaction of tacit and explicit knowledge in four patterns that are in spiral form; the ways in which both types of knowledge can be transferred and new knowledge is created.

Figure 2.1

SECI model (Nonaka & Konno, 1998).



The success of the SECI model of knowledge sharing is mainly dependent on how well organizations manage the four stages. For organizations, as continuous knowledge-creation entities, the management and creation of this strategic resource, "knowledge," are critical. Individual and groups in organizations possess tacit knowledge that is locked in their personalities; the success of organizations depends on how they unlock the tacit knowledge and include in the flow of knowledge within the organization (Choo, 1996).

2.3 Culture and Types of Culture

Culture is defined as shared experiences of social groups in an organization, assumptions, values, norms, beliefs, and attitudes. Organizational processes, especially culture, facilitate knowledge activities, i.e., knowledge creating, sharing, and transfer. The domain of culture is so rich that it has strong links with well-established fields such as sociology, psychology, anthropology, and organizational behavior (Schein, 1990). O'Reillyet al. (1991) defined culture as "... a set of cognitions shared by members of a social unit..." (p, 491). Culture is composed of assumptions and values that define the norms guiding the behaviors of members of a particular society (Nahavandi & Malekzadeh, 1999; Rousseau, 1990).

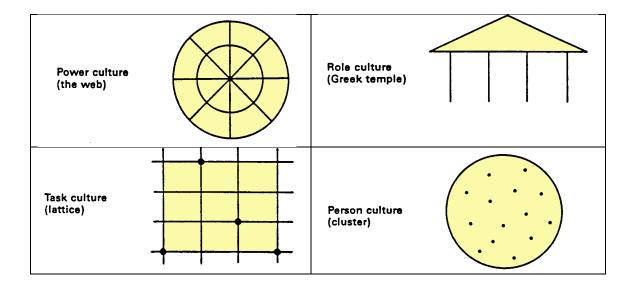
The culture defined above pertains to society and other social units. An organization is also a social unit where people work together to achieve a common goal. Therefore, the culture of an organization is defined as the behavior and attitudes of its employees, shaped by its beliefs and values (Martin, 1985). Schein (1990) discussed the organizational culture as values, norms, and behaviors of individuals forming the system of an organization. Organizational beliefs are demonstrated through the routine behaviors displayed within the organization (Deal & Kennedy, 1983). Therefore, organizational culture is formed through its exposure to critical incidents and assumptions assisting in goal attainment, which become a significant element of its culture.

In previous studies, different dimensions of culture have been identified, categorizing culture into specific types. Hall (1989) differentiated cultures into high- and low-context cultures based on the prevailing communication style in the organization. Kluckhohn and Strodtbeck's Values Orientation Theory (as cited in Hills (2002)) classified culture into six dimensions based on its environment, time orientation, perception about human nature, human actions, interpersonal relationships and use of space as private or public. Hofstede (1993) defined regional cultures in terms of power distance, uncertainty avoidance, individualism, masculinity, and long-term orientation. Handy (1993) has presented culture in four types: power culture, role culture, task culture, and person culture. Handy's model explains the types of organizational culture explicitly into four categories based on beliefs and norms of its members, its ownership, rules & policies, the way people interact, organizational structure, critical business incidents, and environment. This study has opted for Handy's culture model to identify culture type based on communication system, controlling mechanism, internal environment, decision-making, conflict management, performance standards, organizational tasks, and team orientation, to facilitate knowledge transfer of the SECI model.

Figure 2

Handy Model of Organizational Culture (Handy 1993).

Organizational Culture and Knowledge Sharing



Organizational culture plays an essential role in knowledge sharing within organizations; it can either facilitate or impede it among employees. Organizational structure, reward system, leadership style, social networks, resources, organizational environment, trust information system, and experiences are some of the components of culture that influence the sharing of knowledge (Ismail Al-Alawi et al., 2007, Kathiravelu et al., 2014). Besides these factors, employees' behavior and response towards knowledge sharing with others are also essential factors in knowledge management. Lack of trust among employees is the missing link among the employees, and that results in the concentration of knowledge among some members (Robinson, 1996).

Knowledge sharing in an organization is mainly dependent upon the culture or subculture that is prevailing there (Castaneda & Ramírez, 2021). Considering the culture types identified by (Handy 1993); four patterns of the SECI model of (Nonaka, 1994) may be different for power culture, role culture, task culture, and person culture. Each culture type varies in its knowledge-sharing patterns and the knowledge management techniques (Davel &Snyman, 2005). Empirical testing of the knowledge sharing cultures further assists the organizations to promote a particular culture to encourage knowledge creation and transfer, one of the significant factors of an organization's success. Further, this study facilitates identifying the culture type supporting each phase of the SECI model and the extent to which each phase is supported by a particular organizational culture.

3. Methods

This section includes the research method, the selection and justification of the research approach and paradigm, and the research design, explaining the population and sample used in the study. Further, this section describes the methods used for data collection, analysis, and conclusion, as well as the study's limitations.

This study has explored the organizational culture prevailing at the ODL institute and the level of knowledge sharing practiced there. Since the exploration of organizational culture and knowledge sharing requires a detailed analysis of employees' experiences and the organization's events, the qualitative method is used for this study. The study investigated the prevailing culture and subcultures in an ODL institution and their levels of knowledge sharing by analyzing individuals' experiences and perceptions of these aspects, which are inherently subjective. Considering the population of the study, which includes the ODL faculty members' unique experiences in terms of culture and knowledge sharing, the qualitative approach seems more suitable, interpretive, studying things in natural settings, making sense, and deriving meaning (Newman & Benz, 1998). The interpretivist approach (i.e., understanding the human behavior meanings, motives, subjective context, and time-based experiences (Hudson & Ozanne, 1988; Neuman, 2000) for the exploration and description of culture and knowledge sharing patterns of ODL faculty members is adopted.

3.1 Population and Sampling

The role of culture and knowledge sharing is significant for every organization in the knowledge-based economy, especially for educational institutions, which are the primary sources of knowledge creation and transfer among the masses. The emerging role of information technology (IT) and online mode of education has gained momentum in the present economy; research has declared online modes as an effective way of generating, sharing, and transferring knowledge (Ketcha et al., 2015). Given the role of technology and online education in knowledge sharing, the population of interest for this study is ODL faculty members. This study considers only the ODL; therefore, the inquiry strategy is a case study of the ODL mode of education.

Purposive sampling, also known as judgmental sampling, has been used to select faculty members from the ODL institution; it allows researchers to select individuals or groups based on specific attributes necessary for the study (Berg et al., 2004). Informants have been selected based on at least 2 years of experience; as faculty members, they must have spent enough time in the organization to understand the culture and the level of knowledge sharing to share their perceptions and experiences.

Moreover, for in-depth inquiry of the behaviors of individuals, a purposively selected small sample might provide meaningful results (Glassner and Haldipur, 1983).

3.2 Data Collection

Qualitative data is collected from a small sample of ODL faculty members to collect rich information from individuals who have certain characteristics and experiences (Curry et al., 2009). To fulfill the study's purpose, 10 semi-structured interviews with ODL faculty members have been conducted. An interview protocol is developed based on cultural dimensions presented by Handy (1993) and the knowledge sharing model of Nonaka (1994) representing the proposed interview questions that were modified as per responses.

3.3 Analysis Technique

The unit of analysis is the individual faculty member of the ODL institution; each member is considered a case, interviewed to get rich information about the culture and knowledge-sharing level. Interviews have been recoded and transcribed verbatim (verbatim transcription adds validity, congruence, reliability, and veracity of the qualitative data collection and brings the researcher closer to the data (Halcomb & Davidson, 2006, Wengraf, 2001)). Individual interviews are analyzed through thematic analysis by using NVivo 11 plus, which provides tools to handle rich text data, to code and organize the concepts, and to construct relationships (Richards, 1999). Themes are identified through transcription of recorded data (Ryan & Bernard 2003). These themes emerged from similarities and differences in the concepts, and the degree of strength is determined through content analysis to identify the sub-themes. Based on identified themes and sub-themes, relationships have been developed, and a concept map has been attained.

4. Results & Discussion

Based on an analysis of individual cases using NVivo, Table 1 presents the major themes and their strengths. These themes have been identified from thematic analysis of interviews.

Table 4.1 *Main themes and their strength*

Themes and Sub- themes		-	3	4	5	6	7	8	9	10
Culture										
Communication system	7	5	4	4	7	6	5	4	3	5
Controlling Mechanism	3	2	2	3	2	2	2	2	2	2
Overall environment	6	5	5	4	5	2	3	4	5	4
Decision Making	4	5	4	5	6	4	5	3	6	4
Managing Conflict	2	2	1	2	1	1	2	3	2	2
Performance standards	1	1	2	1	4	2	1	1	3	1
Task Distribution and Accomplishment	5	5	6	3	4	5	5	6	5	4
Team competition	3	2	2	2	2	3	2	2	2	3
Knowledge Sharing	7	5	8	4	6	5	7	8	5	7
Internalization	2	3	1	4	2	3	2	2	4	1
Socialization	8	7	6	7	8	6	5	5	6	7
Externalization	2	2	3	2	2	3	2	1	2	1
Combination	2	3	2	3	2	1	2	0	2	3

Under culture, the main themes identified are communication system, control mechanism, environment, decision-making, conflict management, performance standards, task distribution, accomplishment, and team competition. Similar to findings of Ismail Al-Alawi et al. (2007) The Communication system is the prominent factor of culture, as mentioned in Table 1. Other significant factors contributing to an organization's culture are its environment and decision-making style. Among the four levels of the SECI model of knowledge sharing, Socialization is the dominant level practiced in the ODL institution, while externalization, combination, and internalization are not fully practiced. The association of power culture with the least externalization and combination is also supported by Snyman (2005).

5. Discussion

While analyzing the first dimension of the study, i.e., organizational culture and power culture is found to be prominent in the organization, with centralized decision-making and the least involvement of faculty members in decision-making. There are standard rules and a formalized structure followed in an ODL institution.

[&]quot;There are uniform policies in a sense that rules are pre-defined and communicated as it without taking any feedback from the faculty members" (Informant 1).

[&]quot;Centralized decisions, different levels are not involved to participate in the decision making" (Informant 4).

While informally, there is a people culture prevailing, which is an indication of sub-cultures. Faculty members informally share knowledge, and their discussions are healthy and a source of knowledge generation. Employees are cooperative at informal levels and mostly use informal ways to share knowledge.

Presence of standard operating procedures (SOPs) and punishment through explanation call through team leads is a way of controlling the people in the organization.

"Team leads are there to control the activities, and there are explanation calls in case of any mistake" (Informant 5).

The communication system is unclear at the faculty level; information is shared informally. The middle level communicated partial information, and sometimes no sharing, because of the number of levels involved in sharing the information.

"We get information through grape wine, and most of the information comes to us through our discussions that are routine discussions" (Informant 8).

"Rules are not well and clearly communicated, and it is because of complex hierarchical level" (Informant 2).

"Communication system is not much appropriate, at certain level, all the information is not communicated from top to middle level while suggestions given by employees are also not communicated to higher ups" (Informant 6).

Task assignments are not based on a rational basis and are not challenging, creating monotony for faculty members. There is less liberty at the faulty end regarding tasks, and the distribution of the functions is not impartial. Target setting is also not satisfactory; the focus is on quantity and deadlines without considering the nature of the task, reflecting the prevalence of task culture. Performance is also evaluated on the basis of the amount of tasks and meeting targets on time. Most faculty members perform their duties and are committed to their work.

"Tasks are not challenging and repetitive tasks that don't involve learning. Sometimes distribution is not fair, expertise of people is not considered while assigning the task" (Informant 6).

But this approach varies departmentally; some faculty members are satisfied with the assignment of tasks and the deadlines, while others are not. This also indicates the presence of subcultures in the organization.

"Tasks are not assigned by considering the subject nature and not in setting the targets" (Informant 1).

"Equally divided, work burden is considered, and now people have awareness that they can speak for their rights, tasks are on an equal basis, tasks are SMART" (Informant 4).

Prominent themes in culture include the communication system, the organization's overall

[&]quot;Knowledge sharing is through informal discussions that are helpful, and knowledge is enhanced through these discussions and sharing" (Informant 2).

[&]quot;At informal level mostly, information is shared" (Informant 5).

environment, and decision-making style (Table 1). Summing up the analysis of main themes to identify culture, overall ODL institution is having a cooperative, friendly, cohesive, supportive, mixed, and secure culture with informal knowledge sharing and informal bonding at the peer level. These identified themes are also supported by literature as factors affecting knowledge sharing in higher education institutions (Ali et al., 2014, Al-Kurdi et al., 2018, Mazorodze & Mkhize, 2022, Faith & Seeam, 2018).

5.1 Knowledge Sharing Level as per SECI Model

Faculty members across all departments share knowledge informally among peers, indicating the transfer of tacit knowledge within the organization. Informal discussions are the source of gaining and transferring knowledge, either job-related or for personal development. From an organizational point of view, there are explicit, shared rules that are accessible through formal channels. The findings are in line with (Faith & Seeam, 2018).

"Knowledge sharing is good; people share whenever we ask about anything, whether it is personal or related to the job" (Informant 2).

"Knowledge sharing is through informal discussions that are helpful, and knowledge is enhanced through these discussions and sharing" (Informant 9).

Informal sharing is more general and job-related, but there is less sharing about prevailing opportunities or information related to employees' development due to competition.

5.1.1 Socialization

Socialization is practiced through information meetings and discussions that are to share tacit knowledge. Informally, faculty members engage in healthy discussions that help generate new ideas and resolve job-related issues. Still, at the formal level, there is less transfer of tacit knowledge from the top to the middle levels. Moreover, there are seminars and workshops for the development of employees but the selection of participants is not fair. Informal meetings are not much encouraged at the top level.

"During such meetings people share knowledge; yes, somehow such activities are encouraged, and these activities can bring innovation. People discuss at comfort level; they discuss about different opportunities and skills they possess that lead towards development "(Informant 10).

5.1.2 Externalization

Externalization is not fairly practiced as faculty members are not satisfied with the use of their point of view, the findings of meetings and other suggestions by external parties in the decision making and the formulation of rules. There is little or no documented information about meetings, seminars,

and external bodies' opinions, which means tacit knowledge is not properly transferred into explicit knowledge. Faculty members are not aware about the process through which information is documented.

Moreover, formal ways of communicating the documented knowledge are not available to the faculty members. This shows that the transfer of faculty members' tacit knowledge into explicit knowledge is not fully implemented.

5.1.3 Combination

There is a partial transfer of explicit knowledge to explicit knowledge; information is classified and accessible, but with limitations, while change in the formulated things is not much encouraged. Rules and regulations are there, but not adequately communicated with the staff.

"Formal documents are accessible; on request, they are available, at a personal level, they are easily available, but they become complex at the top level. There should be access to these documents to see the trends and to understand the perceptions of the externals about courses and working" (Informant 5).

5.1.4 Internalization

Explicit knowledge is not effectively transferred into tacit knowledge, which can be achieved through learning-by-doing, training, and on-the-job learning. Training is there for the faculty members, but the selection of trainees is not fair; moreover, most of the explicit knowledge is not accessible to the staff. "Limited access is there, we cannot access the external reports, and some things are open, but some are restricted that can be opened through putting request" (Informant 2).

Among the four levels of the SECI model, socialization was the predominant mode of knowledge sharing among faculty members in ODL institutions. The findings are also supported by the literature (Adesina and Ocholla, 2019). The factors contributing to the application of the SECI model's levels include institutional support, policies and procedures, and the referring culture as a critical factor in knowledge sharing. The findings revealed the presence of SECI, but Combination, Internalization, and Externalization emerged as areas requiring improvement from management. Management needs to assess the factors hindering knowledge sharing to target the areas that need special attention.

6. Conclusion

[&]quot;No comment because I have no experience" (Informant 7).

[&]quot;I don't think so, sometimes things are not implemented even if these are communicated through e-mail. I have not seen any implementation" (Informant 9).

"Knowledge" has been identified as a significant resource contributing to competitive advantage for the organization. It is one of the operant resources that cannot be imitated or substituted easily, therefore, it provides an advantage over other competitors. The significance of knowledge is greater for service-based organizations, which are more dependent on the KSA (knowledge, skills, attitude) of their human resources. The use of knowledge as a main "product" is prominent in the education sector, where knowledge is created and transferred among stakeholders. Given the significance of knowledge, this study selected the education sector to assess knowledge sharing levels using the SECI model. Culture is the aspect that differentiates an organization from other, depicting its specific value system and norms defining its structure, rules, and activities. To bring about any change, culture needs to be aligned with the modifications; otherwise, it will hinder the whole process.

Similarly, culture plays a significant role in knowledge-creating and sharing processes. The exploration of cultures and subcultures and their impact on the generation and sharing of knowledge is an important aspect for the performance of organizations. Multiple studies have been conducted for the identification of organizational culture and its impact on an organization's performance, but its significance in knowledge sharing is mentioned in very few studies. However, this association of culture and knowledge sharing is not studied with respect to the educational sector, specifically for ODL institutions. This study has focused on ODL institutions to identify the role of organizational culture in knowledge-sharing activity. The study has identified the presence of power, task, and people culture in the ODL institutions. Among these three, power and people culture are found to be most prominent. Mostly decisions are centralized, indicating the existence of a power culture that also facilitates the externalization in order to make tacit, explicit through documentation. However, it cannot fully externalize the maximum body of tacit knowledge, and most of the knowledge is shared through socialization. Faculty members are sharing knowledge in informal ways. Knowledge sharing is more informal, dependent on the personal relations of the members with each other, which shows the presence of a people culture. Due to extra hierarchy levels, people usually prefer informal communication media to avoid the number of levels involved in the flow of communication.

The 'People culture' has facilitated the socialization process by providing an informal structure to mingle with each other. This cohesiveness in culture supports socialization in sharing tacit knowledge which is not necessarily documented to make it explicit. Moreover. Combination and internalization levels of knowledge sharing are not practiced significantly, and there is no formal mechanism to synergize the explicit knowledge and ensure the internalization of knowledge among faculty members. Main cultural factors affecting knowledge sharing include the organization's communication system,

its decision-making structure, and the overall environment. Faculty members are satisfied with the culture because of informal bonding and the knowledge sharing attitude of the members. To promote knowledge sharing, the communication system should be clear and simple as communication is positively related to knowledge sharing activities (Islam et al., 2011).

To promote knowledge sharing activities combination and internalization are also significant which cannot be initiated unless or until a proper formal mechanism is adopted. To facilitate externalization, combination and internalization task culture is recommended and power culture needs to be restricted. To use culture as a facilitator of knowledge sharing rather than a barrier, a conducive environment is required that can help the faculty members to freely communicate at different levels to gain the knowledge and to share it with each other. This gap can be filled through an open and flexible culture for the faculty members in knowledge creation activities; a move towards getting a competitive advantage.

6.1 Implications and Recommendations

This study encourages the customized SECI model for ODL institutions by showing dominance of socialization (informal sharing) while combination and internalization remain underutilized. Moreover, the institution's culture (power, task, people) directly shapes knowledge creation and sharing, with people culture prominently fostering tacit knowledge and power culture promoting externalization.

The study's findings recommend that educational institutions adopt a flexible culture, encourage faculty to share their knowledge openly, and implement formal mechanisms to strengthen combination and internalization, making tacit knowledge explicit. It is recommended that institutions streamline informal sharing through structured mechanisms to ensure clear, open, and conducive communication. Future research can extend the application of the SECI model to focus on leadership, incentive systems, and other contextual factors in knowledge sharing within higher education institutions.

References

- Al-Kurdi, O., El-Haddadeh, R., & Eldabi, T. (2018). Knowledge sharing in higher education institutions: A systematic review. *Journal of Enterprise Information Management*, 31(2), 226–246.
- Adesina, A. O., & Ocholla, D. N. (2019). The SECI model in knowledge management practices: Past, present and future. *Mousaion*, *37*.
- Ali, O. F., Gohneim, A., & Roubaie, A. (2014). Knowledge sharing culture in higher education institutions: Critical literature review. In *Proceedings of the European, Mediterranean & Middle Eastern Conference on Information Systems (EMCIS)* (pp. 1–18).
- Allee, V. (2012). The knowledge evolution. Routledge.
- Berg, B. L., Lune, H., & Lune, H. (2004). *Qualitative research methods for the social sciences* (Vol. 5). Pearson.
- Blackler, F. (1995). Knowledge, knowledge work and organizations: An overview and interpretation. *Organization Studies*, *16*(6), 1021–1046.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32–42.
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities of practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), 40–57.
- Budur, T., Demirer, H., & Rashid, C. A. (2024). The effects of knowledge sharing on innovative behaviours of academicians: Mediating effect of innovative organization culture and quality of work life. *Journal of Applied Research in Higher Education*, 16(2), 405–426.
- Cacciattolo, K. (2014). Understanding organisational cultures. European Scientific Journal.
- Campbell, M. J. (2009). *Identification of organizational cultural factors that impact knowledge sharing* [Doctoral dissertation, University of Oregon].
- Castaneda, D. I., & Ramírez, C. A. (2021). Cultural values and knowledge sharing in the context of sustainable organizations. *Sustainability*, 13(14), 7819.
- Choo, C. W. (1996). The knowing organization: How organizations use information to construct meaning, create knowledge, and make decisions. *International Journal of Information Management*, 16(5), 329–340.
- Curry, L. A., Nembhard, I. M., & Bradley, E. H. (2009). Qualitative and mixed methods provide unique contributions to outcomes research. *Circulation*, 119(10), 1442–1452.
- Davel, R., & Snyman, M. M. (2005). Influence of corporate culture on the use of knowledge management techniques and technologies. *SA Journal of Information Management*, 7(2).

- David, W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *The Academy of Management Executive*, 14(4), 113–127.
- Faith, C. K., & Seeam, A. K. (2018). Knowledge sharing in academia: A case study using a SECI model approach. *Journal of Education*, *9*, 53–70.
- Gemino, A., Reich, B. H., & Sauer, C. (2015). Plans versus people: Comparing knowledge management approaches in IT-enabled business projects. *International Journal of Project Management*, 33(2), 299–310.
- Glassner, B., & Haldipur, C. (1983). Life events and early and late onset of bipolar disorder. *American Journal of Psychiatry*, 140(2), 215–217.
- Goddard, A. (1998). Facing up to market forces: Times Higher Education (THE). *Times Higher Education*.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2), 109–122.
- Gupta, A. K., & Govindarajan, V. (2000). Knowledge management's social dimension: Lessons from Nucor Steel. *MIT Sloan Management Review*, 42(1), 71–80.
- Halcomb, E. J., & Davidson, P. M. (2006). Is verbatim transcription of interview data always necessary? *Applied Nursing Research*, 19(1), 38–42.
- Hendriks, P. H. (2004). Assessing the role of culture in knowledge sharing. In *Proceedings of the Fifth European Conference on Organization, Knowledge, Learning and Capabilities*, Innsbruck.
- Islam, Z. M., Hasan, I., Ahmed, S. U., & Ahmed, S. M. (2011). Organizational culture and knowledge sharing: Empirical evidence from service organizations.
- Ismail Al-Alawi, A., Yousif Al-Marzooqi, N., & Fraidoon Mohammed, Y. (2007). Organizational culture and knowledge sharing: Critical success factors. *Journal of Knowledge Management*, 11(2), 22–42.
- Jain, K. K., Sandhu, M. S., & Sidhu, G. K. (2007). Knowledge sharing among academic staff: A case study of business schools in Klang Valley, Malaysia [Master's thesis, UCSI Centre for Research Excellence].
- Kathiravelu, S. R., Mansor, N. N. A., Ramayah, T., & Idris, N. (2014). Why organisational culture drives knowledge sharing? *Procedia Social and Behavioral Sciences, 129*, 119–126.
- Ketcha, A., Johannesson, J., & Bocij, P. (2015). Tacit knowledge acquisition and dissemination in distance learning. *European Journal of Open, Distance and E-Learning, 18*(2).
- Lee, J. (2018). The effects of knowledge sharing on individual creativity in higher education institutions: Socio-technical view. *Administrative Sciences*, 8(2), 21.

- Mazorodze, A. H., & Mkhize, P. (2022). Factors and variables to promote a knowledge-sharing culture change in higher education institutions of developing countries. *South African Journal of Information Management*, 24, Article 1491.
- Newman, I., & Benz, C. R. (1998). *Qualitative–quantitative research methodology: Exploring the interactive continuum*. SIU Press.
- Ng, K. Y. N. (2023). Effects of organizational culture, affective commitment and trust on knowledge-sharing tendency. *Journal of Knowledge Management*, 27(4), 1140–1164.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14–37.
- Nonaka, I., & Konno, N. (1998). The concept of "ba": Building a foundation for knowledge creation. *California Management Review*, 40(3), 40–54.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press. https://books.google.com.pk/books?id=B-qxrPaU1-MC
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and leadership: A unified model of dynamic knowledge creation. *Long Range Planning*, 33(1), 5–34.
- Pauleen, D. J., & Gorman, P. G. E. (2012). *Personal knowledge management: Individual, organizational and social perspectives*. Ashgate Publishing. https://books.google.com.pk/books?id=R15irOYCPioC
- Richards, L. (1999). *Using NVivo in qualitative research*. SAGE Publications. https://books.google.com.pk/books?id=foc2sdg0wa8C
- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly*, 41, 574–599.
- Rowley, J. (2000). Is higher education ready for knowledge management? *International Journal of Educational Management*, 14(7), 325–333.
- Snyman, M. (2005). Influence of corporate culture on the use of knowledge management techniques and technologies. *South African Journal of Information Management*, 7(2).
- Sohail, M. S., & Daud, S. (2009). Knowledge sharing in higher education institutions: Perspectives from Malaysia. *VINE*, 39(2), 125–142.
- van den Hooff, B., & De Ridder, J. A. (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117–130.
- Wengraf, T. (2001). *Qualitative research interviewing: Biographic narrative and semi-structured methods*. SAGE Publications. https://books.google.es/books?id=c2b6jQ8g3sAC

Wiig, K. M. (1997). Knowledge management: An introduction and perspective. *Journal of Knowledge Management*, *I*(1), 6–14.

Abbreviations

Knowledge, Skill, Attitude

Open and Distance Learning

ODL

Socialization, Externalization, Combination, Internalization

SECI

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