# Assessing the Landscape of Knowledge Sharing For Implementing In Indian Engineering and Technology Institutions: A Study

*Jaswinder Pal Singh*

*Dr. Baljinder Kaur*

**Jaswinder Pal Singh**

Research Scholar
Department of Library and Information Science
Punjabi University, Patiala
Librarian, Central Library
Chitkara University, Punjab
*https://orcid.org/0000-0001-5515-6051*
*jaswinderpal.singh@chitkara.edu.in*

**Dr. Baljinder Kaur**

Assistant Professor
Department of Library and Information Science
Punjabi University, Patiala
*https://orcid.org/0000-0002-4909-8948*
*baljinderpup@gmail.com*

**ABSTRACT-**

Transferring information, skill, and experience from one person or group to another is what we call "knowledge sharing," and it is an integral part of Knowledge Management (KM). Organisations can encourage knowledge sharing by providing incentives for employees who share their expertise and by creating a culture that values and rewards teamwork. The purpose of this study is to evaluate existing approaches and improving them to support superior knowledge management is essential for establishing a comprehensive knowledge management system. Culture, openness, and IT, as well as leadership, management, trust, and reward systems, are all identified in this study as characteristics that can promote knowledge sharing. Results showed that the majority of participants were conversant with the idea of knowledge management, with 39.53 percent admitting they did not have adequate expertise about knowledge management. The openness plays a more significant role in the distribution of information and ideas, with teaching staff members agreeing that academic-related information can be obtained easily. Communication methods play an important part in knowledge sharing, and trust is an important quality in any company. Female faculty members are more open to sharing their expertise, while male faculty members feel they would not receive any form of acknowledgment or compensation was explored in the study.

**Keywords**: Knowledge; Knowledge Management; Knowledge Management Education; Knowledge Sharing and Organizational Culture

## INTRODUCTION

Historically, organizations in the fields of engineering and technology have been understood to be "knowledge-based," meaning that their tasks and responsibilities are always determined by the acquisition and application of information (Wu et al., 2006). Knowledge processes such as knowledge creation, diffusion, and learning have long been acknowledged in the education sector (Fullwood et al., 2019). The goal of knowledge management is to help companies and their customers benefit from the information and expertise they have amassed. Organizations have undergone a fundamental change, moving from “information" to a "knowledge" basis. Since the government of India understands the significance of knowledge management, they have established the National Knowledge Commission "to build excellence in the educational system to meet the challenges of the 21st century and increase India's competitive advantage in the field of knowledge" (Thakore, 2005). The acquisition of knowledge is a crucial aspect of education, thus the implementation of knowledge management in engineering and technology institutions holds considerable importance. Engineering and technology institutions are known for their involvement in a multitude of knowledge-intensive activities, such as teaching and learning, research, laboratory experimentation, consultancy, community service, and other endeavours that entail the creation, storage, and dissemination of knowledge(Laxman Rao, 2006). The significance of knowledge management (KM) has escalated for organisations to sustain their competitiveness in the swiftly evolving business environment of contemporary times(Jantz, 2001). Engineering and technology institutions are not exempt from the need to constantly innovate and conduct advanced research in order to maintain a competitive edge. Knowledge sharing is a pivotal element of Knowledge Management (KM) that entails the transmission of information, expertise, and experience from one individual or group to another. Within this particular context, the act of sharing knowledge can facilitate organisations in harnessing their collective intelligence to improve decision-making processes, minimise redundancy and errors, and augment innovation and creativity(Koloniari & Fassoulis, 2017).

Extensive research across diverse disciplines such as organizational studies, psychology, and philosophy has delved into the multifaceted realm of knowledge. The concept of knowledge is expansive and intricate in nature. At its core, knowledge can be understood as a collection of information or understanding acquired through educational pursuits or personal experiences(Obermayer & Toth, 2019).The latest scholarly investigations have delved into diverse facets of knowledge, encompassing its function in fostering innovation, its influence on the process of decision-making, and its correlation with the performance of organisations(Ahmed et al., 2022). The utilisation of big data analytics and machine learning to extract patterns and insights from vast amounts of data is a prevalent trend in the realm of knowledge management. This approach can provide valuable information to support decision-making and facilitate innovation(Hejase, 2014). An additional domain of emphasis pertains to the function of social media and other digital technologies in enabling the dissemination of knowledge and cooperation within establishments; it is probable that novel technologies and methodologies will surface to facilitate organisations in effectively utilising their knowledge resources and maintaining their competitiveness, as our comprehension of knowledge progresses (Lacosta & Thomas, 2020).

The distinction between knowledge, data, and information is a commonly recognised concept. Data, as a collection of observations or facts, lack direct significance in the absence of context(Nonaka, Ikujiro, 1995). The act of imparting meaning to data, frequently through the conveyance of a message, is what gives rise to information. Epistemologically speaking, knowledge is a construct that is formed through the purposeful organisation and assimilation of information (or messages) acquired via experiential, communicative, or inferential means. According to Zack (1999), knowledge can be perceived in two ways: as an entity that can be stored and manipulated, and as a process that involves both knowing and acting, which is the application of expertise(Koenig, 2011). From a practical standpoint, it is imperative for organisations to effectively manage knowledge in both its tangible form as an object and its intangible form as a process. According to Tiwana (2001), knowledge can be characterized as a dynamic amalgamation of multiple components, encompassing frames, contextual experiences, values, situated information, expertise, and grounded intuition(Ozer & Vogel, 2015). This combination forms a framework for assessing, comprehending, and assimilating new experiences with the objective of acquiring information. Beyond the realm of documents and databases, tacit knowledge is embedded in the routines, procedures, and policies of an organisation.

Knowledge can be broken down into two categories: According to Nonaka, tacit knowledge is a form of information that is not easily put into words but is comprehended and utilised unconsciously(Nonaka, Ikujiro, 1995). It is typically acquired through direct experience and action, and is often shared through interactive conversation, storytelling, and shared experiences. It embodies the concept that is comprehended but not fully articulated. As an illustration, one may possess the skill of swimming; however, the ability to impart this skill to another individual solely through verbal instruction while situated outside of a body of water is unfeasible (Koenig, 2011). The experience is indescribable. In contrast, explicit knowledge can be articulated in a more precise and formal manner. Consequently, despite its abstract nature, it can be readily formalised, recorded, transmitted, or disseminated. The significance of explicit knowledge in organisations is on the rise, and it is regarded by certain scholars as the foremost production factor in the knowledge-based economy.

Moreover, a considerable number of individuals perceive the information conveyed by others as implicit knowledge. The human brain, akin to a computer's hard drive, has the capacity to function as a medium for the retention and conveyance of information, specifically explicit knowledge (Hejase, 2014). It is important to differentiate between information that is documented and retained in the human brain and tacit knowledge. Explicit knowledge can be extracted and transferred to alternative mediums, potentially digitised, and effectively managed through the utilisation of information and communication technologies (Lacosta & Thomas, 2020). The acquisition of tacit knowledge remains inaccessible until the technological capability to download the entirety of the human brain and transfer the human mind onto a diskette is achieved.

Knowledge management (KM) refers to the systematic and strategic approach of generating, disseminating, utilising, and administering knowledge and information within a given organisational context. The process entails the recognition of essential knowledge for an organization's achievement, the acquisition and retention of said knowledge, and the facilitation of its availability to staff members at the appropriate time and location(Hejase, 2014). Knowledge Management (KM) encompasses a diverse array of undertakings, such as the generation of knowledge maps, the execution of knowledge audits, and the establishment of knowledge-sharing mechanisms (Alam et al., 2009). The current scholarly discourse has directed its attention towards the function of knowledge management (KM) in facilitating innovation and enhancing the operational efficacy of organisations (Ahmad et al., 2019; Bultrini & Newman, 2020; Ugwu & Onyancha, 2019). Woo highlight the significance of incorporating digital technologies, such as artificial intelligence and machine learning, in facilitating knowledge management processes(Woo Bock et al., 2010). The significance of Knowledge Management (KM) is on the rise as organisations confront intricate and ever-changing business landscapes, thereby providing a means to attain a competitive edge (Sajid, 2016).

Organizations generate data as a by-product of their operations. However, their functioning is not solely dependent on data alone. Instead, they heavily rely on information and require effective strategies to harness and leverage this information through the application of relevant knowledge. The term "knowledge management" denotes a systematic approach to the creation and dissemination of knowledge within an organization. As described by (Kianto et al., 2016)), knowledge management encompasses the processes of generating, sustaining, and harnessing the collective knowledge contributed by employees.

The existing body of literature presents various documented approaches for transforming data into knowledge. Wetherbe has illustrates a generalized model depicting the stages involved in the conversion of data into knowledge (Wetherbe et al., 2001).

- The process starts with data collection from various sources and storage in a database,
- This data is then preprocessed and stored in a data warehouse,
- Data passes through the transformation process and is finally available for analysis,

- The data is then analyzed using data mining tools and other information systems,
- At the end of all these activities, knowledge is generated,
- Finally, this knowledge is stored in a knowledge base.

Once knowledge is generated, it serves as a foundation for further knowledge creation. Whether be proposes a cyclical process consisting of six steps that continuously refine and enhance information over time. These steps are as follows:

- Create knowledge,
- Capture knowledge,
- Refine knowledge,
- Store knowledge,
- Manage knowledge,
- Disseminate knowledge.

**Knowledge Sharing and Organizational Culture**

Knowledge sharing is a crucial component of knowledge management, and the organizational culture plays a significant role in shaping employees' inclination to share knowledge(Mian et al., 2008). Kathiraveludefine organizational culture as the collective principles, beliefs, and customs that influence the behaviour of individuals within an organization(Kathiravelu et al., 2014). Wiewioraresearch suggests that a positive and supportive organizational culture can foster knowledge sharing and collaboration(Wiewiora et al., 2013). Workers are more likely to pool their expertise if they believe their work is appreciated and they are part of a welcoming group. On the other hand, a preference for individual success over group effort may stifle the spread of information(Ullah et al., 2016).To cultivate a culture that values knowledge sharing, organizations are recommended to provide incentives, recognition, and rewards for employees who engage in knowledge sharing activities. Additionally, creating a supportive environment that encourages collaboration is essential (Islamy et al., 2020).

The concept of organizational culture has garnered significant attention and generated some ambiguity. While various disciplines such as anthropology, sociology, and psychology have contributed to its understanding, multiple definitions lack specificity and generality. This interdisciplinary approach adds depth and complexity to the topic but may not necessarily enhance its comprehensibility. Noteworthy scholarly works by (Al-Alawi et al., 2007; Connelly & Kevin Kelloway, 2003; Kucharska & Wildowicz-Giegiel, 2017; Lund, 2003; Marouf, 2017; Memon et al., 2020; Pertuz-Peralta et al., 2020; Rohim & Budhiasa, 2019; Tong et al., 2013, 2013) support this notion.

**Knowledge Management and Education In India**

Knowledge Management (KM) has gained significant traction in India, becoming a prominent field of study in recent times. Koloniari & Fassoulisemphasize that knowledge management can play a crucial role in improving learning outcomes and promoting innovation within the education sector(Koloniari & Fassoulis, 2017).According to Nazim & Mukherjee research, the implementation of KM can aid educational institutions in efficiently managing their knowledge assets, facilitating knowledge sharing among faculty members, and enhancing the standard of teaching and learning. Notwithstanding the potential benefits, the implementation of Knowledge Management (KM) practises in Indian educational institutions is currently in its early stages, and there exist a number of obstacles that must be overcome(Nazim & Mukherjee, 2013). These include a dearth of knowledge and comprehension of KM among educators, as well as insufficient resources to execute KM initiatives(Khan & Ali, 2019). In order to address the aforementioned challenges, it is imperative to foster increased collaboration between academic institutions and private enterprises, with the aim of devising novel knowledge management (KM) solutions that are tailored to the specific requirements of Indian students (Chang et al., 2017; Chidambaranathan & Rani, 2015; Islam et al., 2015).

The expansion of engineering and technology education in India has exhibited a rapid pace over the past decade. The Indian government has promoted the involvement of private entities in the realm of engineering and technology education(Thakore, 2005). Consequently, there exists a significant shortage of competent faculty members across various engineering and technology establishments. Academic professionals within a department exhibit reluctance to disseminate their knowledge and expertise to their colleagues, superiors, or other departmental members due to the perception that their knowledge base provides them with leverage in negotiations and bargaining (Laxman Rao, 2006; Naushad Ali & Khan, 2017). Universities serve as the primary institutions for conducting research and generating novel knowledge to foster innovation in developing nations (Laxman Rao, 2006). Over the past decade, the technical education system in India has experienced significant growth. The government has significantly promoted private involvement in the establishment of new institutions. The aforementioned development has facilitated the acquisition of technical qualifications by Indian students, thereby providing them with a promising outlook for their future (Nazim & Mukherjee, 2013). The current inquiry that has arisen pertains to the production of proficient technical personnel - are we effectively generating such individuals?

Engineering and technology institutions in India have progressively established noteworthy research and development capabilities. A limited number of institutions have demonstrated highly encouraging outcomes (Quarchioni et al., 2020). It is imperative that we acknowledge our existing knowledge and effectively utilise it to its fullest potential. The contemporary business landscape demands a workforce that surpasses the conventional standards of adequacy. The quality of knowledge that organisations apply to their key operations is a critical factor in achieving success in an environment that is becoming increasingly competitive. The increasing pace of innovation has led to a heightened level of demand in the field of education. The students are requesting for an enhancement in value. It is imperative for faculty members to recognise the need for rapid self-updating, given the exponential growth and proliferation of knowledge. The inherent nature of a university setting appears to be particularly conducive to the implementation of principles and methodologies related to knowledge management (Rana et al., 2022). Currently, there is a global focus on knowledge management. In academic, engineering, technology, and research institutions, the majority of work are predicated on information and knowledge. Consequently, it is imperative to effectively manage knowledge and ensure its accessibility upon request.

In summary, knowledge and information have emerged as the primary medium for the manifestation of business and research challenges. The effective management of knowledge presents a key avenue for realising considerable cost reductions, noteworthy enhancements in human productivity, and a competitive edge. Epistemologically speaking, knowledge can be defined as a cognitive state that results from the acquisition, processing, and interpretation of information. This phenomenon can only manifest within the cognitive processes of an individual. The task of capturing it is arduous and consequently, its accessibility is limited to a narrower demographic. The exclusivity of access and absence of archiving are the primary factors contributing to this circumstance. The departure of key individuals from an organisation can result in significant damage. Upon leaving an organisation, employees carry a substantial amount of institutional knowledge with them (van Rooij & van Rooij, 2019). The phenomenon commonly referred to as 'Brain Drain' is increasingly recognised as a significant challenge faced by contemporary organisations, as well as engineering and technology institutions (Rehman et al., 2014). Engineering and technology institutions in India have progressively established significant research and development capabilities. There is a growing emphasis on research and collaboration with industries. A limited number of institutions have demonstrated highly encouraging outcomes. Although education holds significant value, it is evident that research serves as the fundamental element for institutions of engineering and technology. From a knowledge management perspective, it is more appropriate to refer to research as knowledge creation. Academic institutions are responsible for generating novel knowledge, which must be effectively captured(Alam et al., 2009). Engineering and technology institutions have yet to adopt knowledge management systems, although certain practises are currently being observed. Therefore, to establish a comprehensive knowledge management system, it is imperative to evaluate the existing knowledge management methodologies and enhance them to facilitate superior knowledge management.

**Factor For Knowledge Management Implementation**

The successful implementation of knowledge management (KM) in organisations necessitates a meticulous assessment of diverse factors that can exert an influence on the efficacy of KM endeavours. The willingness of employees to share knowledge can be influenced by the organisational culture, as noted by (Ugwu & Ekere, 2018). The accessibility of resources, encompassing technological infrastructure and proficient personnel, is an additional aspect to consider(Davenport, 1998). Furthermore, it is imperative to implement efficient communication and change management tactics to guarantee that the workforce comprehends the significance of Knowledge Management (KM) and is inclined to engage in KM initiatives(Bock et al., 2005). The success of knowledge management (KM) initiatives is contingent upon the provision of leadership support, as leaders have the ability to establish the prevailing culture within the organisation and furnish the essential resources and incentives for KM(Al Mehairi & Zakaria, 2014; Ratnasari et al., 2020). Numerous factors may play a role in the implementation of knowledge management within engineering and technology institutions in India. A comprehensive examination of the literature has identified several distinct factors that may facilitate knowledge sharing. This study identifies several constructs that are pertinent, including but not limited to culture, openness, information technology, leadership, management, trust, and reward systems (Durmusoglu et al., 2014; Lacosta & Thomas, 2020; Lodhi & Ahmad, 2010; Parirokh et al., 2008). The aforementioned factors encompass a robust correlation with a commercial necessity, a persuasive vision and framework, expertise in leadership, a culture of knowledge dissemination, ongoing education, a thoroughly established technological foundation, and methodical processes for organisational knowledge management(Al Mehairi & Zakaria, 2014).

Davenport and Prusak (1998) posit that effective knowledge management can be achieved by means of cultural and behavioural modifications, organisational transformations, and technological advancements(Davenport, 1998; Rehman et al., 2014). The researcher examined 18 instances of knowledge management initiatives that were implemented in organisations characterised by early adoption of knowledge management practises. According to Lin proposition, social contexts are significant in facilitating knowledge sharing due to the inherent ease with which knowledge can be disseminated(Lin, 2007). Gupta 2002 posits that while technology platforms may provide assistance, they cannot effectively stimulate knowledge flow without due consideration of the cultural and organisational contexts that foster the development and sharing of knowledge among individuals(Gupta & Govindarajan, 2000). There are five distinct categories of factors that are crucial for the success of a knowledge management initiative. These categories include leadership, culture, structure, roles and responsibilities, IT infrastructure, and measurement(Anna, 2013; Nazim & Mukherjee, 2013; Thiptanamanee & Ussahawanitchakit, 2016). Chang in his survey identifies four enablers within their framework that can facilitate the implementation of knowledge management: strategy and leadership, culture, technology, and measurement(Chang et al., 2017). The present study is based on a comprehensive review of literature, which suggests that the factors that facilitate knowledge sharing can be broadly classified into five categories, namely management, reward system, trust, openness, and communication channel. It is noteworthy that there exist numerous other variables that could conceivably be incorporated into a theoretical framework delineating a culture that fosters the dissemination of information.

## OBJECTIVES OF THE STUDY

The field of knowledge management is currently in its nascent stage within our country, with limited progress having been made thus far. The field of knowledge management has emerged as a novel discipline that draws from various other established disciplines. Despite the extensive efforts made by the corporate sector in the development and implementation of knowledge management systems, the field of education has received minimal attention in this regard, despite knowledge creation being its fundamental function. The current investigation represents a stride towards comprehending the awareness of knowledge and its prevalence within engineering and technology academic institutions. The two major reasons for this situation are:

- A poor understanding of what knowledge management is; and
- The lack of a suitable approach to managing it to the best advantage of the users
- In order to achieve this aim, the following objectives will be addressed:
- To study factors affecting the sharing of knowledge

## METHODOLOGY

The objective of the research was to investigate the determinants that impact the efficacy of knowledge dissemination. In order to accomplish this objective, the researchers obtained a sample from individuals employed in academic positions within engineering and technology institutions located in India. The sample population for this study consisted of 50 academics were selected based on their high level of engagement in knowledge sharing activities and their integration into the organisational culture. The study's population exclusively comprises individuals who hold academic positions. This can be attributed to their accountability in producing knowledge through research and circulating knowledge through pedagogy. During the period of investigation, the focal institution had executed and was engaged in the utilisation of a rudimentary knowledge dissemination mechanism for the purpose of archiving documents, regulations, procedures, and fundamental knowledge sharing endeavours. In this research endeavour, a survey instrument was formulated and administered in a face-to-face manner to the scholarly individuals. The survey instrument employed in this investigation comprises of two distinct sections. The first section of the survey pertains to the institution's demographic information, specifically focusing on the faculty and their level of familiarity with knowledge management. The second section of the questionnaire comprises inquiries pertaining to the determinants that influence the sharing of knowledge. These determinants are classified into five distinct categories, namely transparency, reliance, modes of communication, administration, and incentive structures. The survey responses are measured using a Likert-type scale consisting of five points, ranging from 1 (representing strong agreement) to 5 (representing strong disagreement).

## ANALYSIS AND INTERPRETATION OF DATA

The profile of the faculty is presented in Table 1. There is evidence that the majority of participants are conversant with the idea of knowledge management, which accounts for 60.47 percent of the sample. In the meantime, 39.53 percent of respondents admitted that they did not have adequate expertise about knowledge management. Because of this, it can be deduced that the vast majority of the faculty members have at least some level of comprehension of the idea of knowledge management. Every member of staff associated with this educational establishment has a permanent faculty post and is actively involved in the spread of knowledge in a variety of formats. Every person is aware of and can comprehend the operational norms and values that are practised inside their own organisation.

**Table 1**: Demographic of the respondents

| Items | Descriptions |
|---|---|
| Faculty | Computer science engineering |
| Faculty | Electronics and communication engineering |
| Faculty | Electrical engineering |
| Faculty | Mechanical engineering |

**Table 2:** Are you aware of knowledge management

| Faculty | Yes % | No % | Chi-square |
|---|---|---|---|
| Female | 58.82 | 41.18 | Chi^2=0.03 |
| Male | 61.54 | 38.46 | |
| Overall Total | 60.47 | 39.53 | |

**Table 3:** Is there a gap between younger and more experienced employees.

| Work Experience | Yes % | No % |
|---|---|---|
| Up to 5 year | 70 | 30 |
| 5-10 | 45.45 | 54.55 |
| More than 10 year | 80 | 20 |
| Total | 65.85 | 34.15 |
| Designation | Yes% | No% |
| Lecture | 73.68 | 26.32 |
| Sr. Lecture | 33.33 | 66.67 |
| Asstt. Prof. | 60 | 20 |
| Prof. | 80 | 40 |

The data that was obtained has been analysed using a statistical tool that was made available. For the purpose of determining whether or not the respondents' preferences for certain factors varied according to category, statistical approaches such as percentages and chi-square tests were utilised.

A query as to whether or not the respondent was familiar with the practise of knowledge management at their organisation was asked to them. It is evident from table 2 that 58.82% of female faculty are aware of KM in their institute, while only 41.18% of them are oblivious of it. This is compared to the percentage of female faculty members who responded that they are unaware of KM. On the other hand, when it comes to male faculty members at their institution, 61.58% are aware of KM, while just 41.18% are oblivious of it. Overall, sixty-four point seven percent of the teaching staff was aware of it.

They were questioned on whether or not there was a knowledge divide between the faculties. 70% of faculty members with fewer than five years of experience answer yes, whereas 30% of those same faculty members say no. 45.45% of respondents indicated yes, while 54.55 percent responded no when asked about experience ranging from 5–10 years. When we examine these findings in terms of designations, 73.68% of respondents feel that there is a generation difference between younger employees and those with greater experience. When we look at the table that's been provided, we can see that Sr. Lecture claims that 33.33 percent of respondents said there is no generation difference. But eighty percent of the professors we asked responded negatively to this inquiry. It has been determined that a total of 65.85 percentages of the faculty members are of the opinion that there is a gap.

**Table 4**: What kind of information flow free in your institute

| **Respondent** | **%** |
|---|---|
| Technical | 23.26 |
| Basic project information | 6.97 |
| Academic related information | 69.77 |
| Research | --- |

The responses of the respondents are summarised in Table 4, which focuses on the question of what kinds of information are easily accessible at your institute. It would appear that openness plays a more significant role in the distribution of information. Every single responder agreed that transparency is necessary for the exchange of information and ideas. The vast majority of the institute's teaching staff members are of the opinion that academic-related information can be obtained easily there. Many of those who participated in the survey had the impression that the specialists did not share their knowledge and instead hid it from other departments. The vast majority of the information that circulates unimpeded within an institution is of far lower quality. It was urged to each reply that an open atmosphere needs to be part of the policy of the institute, and that people in the institute are asked to share knowledge with one another.

**Table 4.1:** What kind of things institute do to make it easier for people in the institute to share knowledge openly.

| **Respondent** | **%** |
|---|---|
| Communicate value of openness | 27.91 |
| Training | 2.33 |
| Institute objective for openness | 6.98 |
| Enhance relationship | 27.91 |
| Recognize everyone that has contributed to a project | 34.88 |

Respondents are being prompted to express their thoughts on what the institute could do to remove barriers that prevent its members from freely exchanging information with one another. The vast majority of them proposed that the institute provide recognition to everyone who has made some form of contribution to the work. People are permitted to work both within their own departments and in departments that are not their own. Training is the aspect that receives the least amount of attention.

**Table 5:** What makes it harder to communicate knowledge within institute.

| **Respondent** | **%** |
|---|---|
| Communication not valued | 20.93 |
| Lack of familiarity | 32.56 |
| Meeting with accountabilities | 11.63 |
| Inappropriate communication channels | 30.23 |
| Tools too difficult | 4.65 |

Because communication methods play such an important part in the process of knowledge sharing, the professors were questioned about what factors contribute to the difficulty of transferring information within the institute. Three hundred twenty-five and sixty-six percent of them are in agreement that they do not have sufficient acquaintance with the communication channels that are available in the institute and that the institute must provide some form of training to use them. In-person interaction is required for the transfer of tacit information. Because of this, everyone is interested in either documentation, meetings, or electronic communication methods..

37.21% of people who participated in the survey provided feedback suggesting that there should be training on how to effectively use various communication mediums. The fact that institutes focus more on their personnel than their technology is yet another factor that contributes to their significance. It would appear that people require less stress brought on by technology and more social ties within their communication channels.

**Table 5.1:** What could be done to improve the communication within institute

| Respondent | % |
|---|---|
| Training | 37.21 |
| Standardizes on one system | 25.58 |
| Push information | 6.98 |
| Extend intranet/extranet | 6.98 |
| Deal with people rather than technology | 23.26 |

When it comes to the exchange of information, trust is the single most crucial factor. The institute is required to have faith in its workforce and to construct and maintain high levels of personal trust among its employees through face-to-face interaction and relationships that are founded on trust. When we polled the teaching staff, they unanimously agreed that trust is an important quality in any company. Everyone has their own unique perspective on what constitutes trust. 18.60% of respondents believed that other people would not use their information against them, while 34.8% indicated they have faith in the capabilities of other people. When coupled with an appreciation for one's co-workers, trust appears to function as a catalyst that encourages the exchange of information.

**Table 6:** How you would define trust.

| Respondent | % |
|---|---|
| Other people will not use knowledge against me | 18.60 |
| Confidence in other’s ability | 34.88 |
| Respect | 11.63 |
| Not offended by criticism | 13.95 |
| Honesty | 20.93 |

Fifty percent of the male faculty members surveyed felt that if they shared their knowledge with other employees, they would not receive any form of acknowledgment or compensation. In contrast, the percentage of female faculty members who agree with this statement is only 35.63%. More than fifty-five percent of faculty members either strongly agree or agree that this aspect is important. When compared to male faculty members, female faculty members are more open to the idea of sharing their expertise inside the institute.

Management is one of the most important factors that determine how well information is shared. The ability of leaders to serve as role models who exhibit the desired behaviour of knowledge sharing is an important quality in leaders. The vast majority of the teaching staff responded that heads or leaders are crucial across all departments because they serve as role models, lead by example, and are open to all.

According to Table 7.1, 43.90 percentages of respondents feel that it is more difficult to communicate their knowledge with others since their heads get in the way of information sharing. Because he or she was too busy, or because they were engaged in some other vital activity, he or she limited his knowledge. Everyone agrees that getting senior management's support and commitment is essential for a knowledge sharing project to be successful. It is expected of him or her to serve as an example for other staff members at the institute.

According to the findings of the survey, reward systems play an important part in the culture of information and knowledge sharing that originated it. Every single member of the faculty emphasises the importance of receiving acknowledgment from the top management and receiving assistance from peers when it comes to knowledge sharing. About half of male faculty members and just over half of female faculty members do not have an opinion regarding the current reward systems. But when we ask them directly, each and every one of them strongly agrees that when there is no such compens-

**Table 6.1**: Lack of trust "why should I take risk to help whom I compete with, I wouldn't get the recognition for it anyway"

| **Respondent** | **SA %** | **A %** | **N %** | **D %** | **SD %** |
|---|---|---|---|---|---|
| Male | 15.38 | 50 | 7.69 | 11.54 | 15.38 |
| Female | 5.88 | 35.29 | 5.88 | 52.94 | -- |
| All Data | 11.63 | 44.19 | 6.98 | 27.91 | 9.30 |

**Table 7:** What does your own head do to that makes it easier for you to share knowledge.

| **Respondent** | **%** |
|---|---|
| Open to all | 27.91 |
| Leading by example | 23.26 |
| Helps to solve the problem | 25.58 |
| Encourage collaboration across the organization | 6.98 |
| Perception of his/her role and responsibilities | 16.28 |

**Table 7.1:** What does your head do that makes it harder for you to share knowledge.

| **Respondent** | **%** |
|---|---|
| Not hindering | 43.90 |
| Shows no commitment | 9.76 |
| No trust in employees | 14.63 |
| Perceived as being too busy for communicating | 24.39 |
| Head not appreciates the work I do | 7.32 |

**Table 8:** Does the current reward system encourages the sharing of knowledge.

| **Respondent** | **SA %** | **A %** | **N %** | **D %** | **SD %** |
|---|---|---|---|---|---|
| Male | 7.69 | 34.62 | 50 | 3.85 | 3.85 |
| Female | 5.88 | 35.29 | 52.94 | 5.88 | ------- |
| All Data | 6.98 | 34.88 | 51.16 | 4.65 | 2.55 |

-ation system in the institute, employees are not ready to exchange expertise with one another. People should be encouraged to share their expertise by the institute providing the appropriate incentives, awards, or other motivational aids, as well as establishing the appropriate structure for the reorganisation of personnel. When we ask people how the current incentive system may be improved to enhance the sharing of information, the majority of responses indicate that public acknowledgement from top leadership is the most important aspect in the process. You are evaluated based on your own accomplishments, not on the successes of others that were obtained with your assistance.

## FINDINGS AND CONCLUSION

The academic departments at technology and engineering schools were the primary focus of the investigation. It has determined a number of aspects that contribute to the sharing of information. The findings suggest that there is a culture of knowledge-sharing among the institute's departments to some extent at the present time. The support that the management provides for the exchange of knowledge is discouraging. On the one hand, the majority of academics are of the opinion that there is no alignment between the policies and acts of the institute; on the other hand, the faculty of this institute are of the opinion that alignment between the policies and activities of the institute encourages knowledge sharing.

The findings of this study will be useful in assisting engineering and technology institutes in evaluating the potential benefits of information sharing as a method for enhancing performance. The administration of these institutes will have an advantage over the management of other institutions thanks to the fact that these characteristics will be placed under the more general category of culture. According to the findings of this study, preferential treatment, such as favouritism and lobbying, makes it more difficult to share knowledge. Since the beginning of time, businesses have struggled to effectively manage the process of information generation and dissemination within their enterprises. It's possible that the majority of the organisations have implemented a variety of solutions in order to tackle the problem. The purpose of this study is to draw attention to the significant elements that are shaping the way in which engineering and technology institutes share their expertise.

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