

Original Paper

Emerging Technologies: Factors Influencing Knowledge

Sharing

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Abstract

As advances in emerging technologies continue to transform the business landscape, knowledge sharing will become increasingly important to leveraging the unique core competencies of organizations so as to gain a competitive advantage. Despite emerging technologies being so popular in news and media publications, knowledge sharing remains an area of research that is under-researched in the emerging technologies context. This research aims to identify the barriers and factors to knowledge sharing within an emerging technology context. A comprehensive in-depth interview was conducted with 38 professionals working in 5 organizations engaged in the field of emerging technologies in order to arrive at the findings discussed in this paper. Based on the analysis of the surveys, we found that there are six main factors driving the need for sharing knowledge. The six factors are: regular cadence, integrating expertise from different teams, diversity-inclusive social environment, interconnected platforms that are accessible to all, a regular update schedule that needs to be followed, to create points of contact within different departments of an organization in order to facilitate sharing. It is important to note that the distribution and use of knowledge in organizations is dependent on the interactions between individuals.

Keywords

knowledge sharing, emerging technologies, factors influencing knowledge sharing, diversity and inclusion of knowledge

1. Introduction

To grasp the importance of emerging technologies, it is imperative that we understand what they are and what they do. In the context of emerging technology, we can often use the term to refer to a new

technological development, but we can also use it to refer to the continual development of a technology that previously existed. Emerging technologies have several characteristics that distinguish them from traditional technologies, such as radical novelty, in their application, if not in their genesis, relatively rapid growth, coherence, a significant influence, and uncertainty and ambiguity. As a result, emerging technologies have soared to the status of a topic that encompasses a broad range of disciplines such as educational technology, information technology, nanotechnology, biotechnology, machine learning, cognitive science, cultured meat, robotics, and artificial intelligence.

A new developed technology can be defined more broadly as those that have remained essentially untouched in terms of their development, implementation, or both, emerging from non-existence or obscurity, and are now becoming mainstream. There are many new technologies in this field, but some have been around for quite some time and have not reached their full potential yet.

2. Knowledge Sharing and Emerging Technologies

Due to the very nature of the new technologies, they are inherently knowledge-intensive in nature, which is the main reason they are difficult to comprehend. In order to cut down on the high failure rates, it is clear that knowledge sharing could be one of the potential solutions. To ensure that these technologies succeed, it is necessary to incorporate knowledge sharing into the design and the implementation of these technologies. It is no surprise that the emerging technologies industry employs a diverse array of individuals from nearly every cultural background and occupational culture, ranging from highly skilled engineers and technicians to managers, professionals, and administrators in various fields. As a result, the industry is increasingly reliant on the skills, knowledge, and experience of individual employees. Having knowledge that is shared can serve as a survival strategy for an organization. This is because it is one of the essential building blocks of organizational success in the new era of emerging technologies.

3. Factors Influencing Knowledge Sharing

Emerging technologies have enabled people to share their experience and knowledge in order to reduce the costs of solving problems and to reduce the likelihood of them repeating themselves in the future. Sharing knowledge allows firms to meet customer demands more quickly and at a lower price, which enables them to achieve their business goals. Figure 1 illustrates the six major factors that influence knowledge sharing and have been enumerated in detail below:

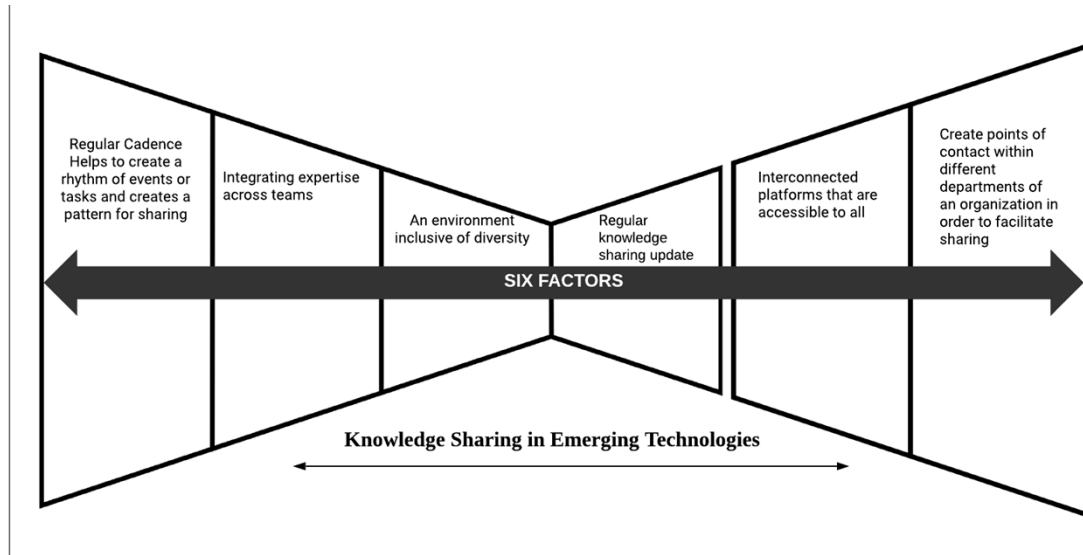


Figure 1. Six Factors Influencing Knowledge Sharing in Emerging Technologies

4. Regular Cadence

The first thing we need to do is to become familiar with what regular cadence means before we move forward. An organization's cadence of regular meetings is defined by routines, processes, and systems that occur at regular intervals and with varying frequencies. This includes meeting informally or formally, conducting knowledge reviews and assessing content on a quarterly basis, etc. In small organizations and large corporations alike, regular meetings or regular information sharing cadences allow for knowledge sharing and collaboration. Depending on the type of organization, there are opportunities to share knowledge and collaborate across organizations.

Knowledge sharing is an activity that everyone approaches from their own vantage point. By bringing people from different parts of the company together on a regular basis to share knowledge and collaborate across organizations, it will be easier to find innovative solutions to process problems.

Regular cadence enables collaboration from the beginning, building trust and boosting buy-in. Everyone in the same room and on the same page results in fewer delays. The benefit of working with experts in different parts of the business can help cross-pollinate knowledge that might otherwise remain hidden, and to make clear how everyone's role fits into the bigger scheme of things.

5. Integrating Expertise

When it comes to building and maintaining a resilient organization built on knowledge sharing, communication and engagement are essential, especially considering the rapidly changing nature of work environments and the growth of remote and hybrid work. It is possible for organizations to stay up to date on news and announcements, develop a closer relationship with leadership, and create a more cohesive work environment by integrating expertise across teams.

Throughout the organizational structure, there is an opportunity to build, articulate and redefine shared

beliefs by interacting with fellow organization members in an ongoing collective process. In order to build, accumulate, share and integrate knowledge, social construction and connections are fundamental. Integration within cross-functional teams is crucial in the realm of knowledge sharing. Specifically, it should seek to find ways to bridge the gaps in knowledge sharing among the team members so that each can see beyond their area of expertise and form an overall picture of the situation.

An organization's journey to learn requires the integration of specialized sources of knowledge and skills to integrate contrasting specialized knowledge for the purpose of sharing knowledge through the application and assimilation of specialized sources of knowledge.

6. Diversity and Inclusion

Diversity and multiculturalism bring several advantages to the workplace. The globalization and interconnection of today's world require organizations to employ individuals with a diverse set of skills. When knowledge sharing processes are well designed, they can promote equity and inclusion within an organization, improving overall effectiveness and impact on knowledge initiatives.

One of the most valuable assets that you can have on your side as an organization is the collective knowledge of its collective members.

As a result of the diversity in knowledge sharing, there are a range of different aspects that are present, such as race, ethnicity, gender, age, religion, and education. Since the 1960's, there has been an increase in diversity within various organizations. Diversity continues to play an important role in creating knowledge sharing cultures.

Whenever like-minded individuals get together, they are able to generate and share similar knowledge. They are able to do this because knowledge tends to follow a similar pattern. The opposite scenario is also true; if you mix people from different backgrounds and add diversity to the mix, then there is a higher chance that you will have a knowledge sharing process that's creative and innovative, which are key components of knowledge sharing.

7. Regular Knowledge Update

Knowledge repositories can be managed in a similar manner to libraries. The knowledge sharing repository needs to be updated regularly, categorized, and sorted in order to serve organizations more effectively. There can be times when updating an organization's knowledge base can be a complex, uncomfortable, and time-consuming process. However, once organizations get into the habit of updating their knowledge base regularly, they reap many benefits. Regular updating of knowledge is one of the most significant aspects of knowledge sharing. It is more and more common for organizations to be up-to-date nowadays as a requirement to help them advance.

Maintaining your relevance in an ever-evolving marketplace requires staying on top of trends, adapting, as well as constantly sharing knowledge and information. In spite of the fast-paced world in which we live, organizations must remain successful by making sure their knowledge bases are always up-to-date,

since this has a direct impact on knowledge sharing.

Through updating and acquiring new knowledge, an organization can discover innovative solutions to problems that impact its business.

8. Interconnected Platforms that Are Accessible to All

When the various information systems, devices, and applications are able to seamlessly access, exchange, integrate, and utilize data, within and across organizations as well, a seamless knowledge sharing process will be created. As organizations continue to digitize, and as a result, there is a need for a variety of mechanisms, loops, and applications to facilitate the exchange of information to help accomplish objectives. Through interconnected tools and interoperable systems, knowledge sharing in the context of emerging technologies is the primary objective of equipping people with the tools and resources necessary for enhancing and accelerating knowledge sharing. By doing so, we are able to increase stakeholder engagement, knowledge exchange, and informed decision-making.

It is of extreme importance to provide the right information to the right people at the right time, that is, to provide the right knowledge at the right time at the point of decision-making. Interconnected systems and tools are crucial to facilitating the exchange of knowledge on a large scale, as they are capable of boosting the flow of knowledge on a large scale.

9. Creating Points of Contact within Different Departments of an Organization

It is more than simply working with other teams or collaborating across departments to set up a point of contact and collaborate across departments. The best knowledge sharing outcomes come from cultivating a shared vision and mutual respect, as well as an in-depth understanding of what each other does.

In the absence of visibility or understanding of how their contributions impact the big picture, team members may be reluctant to commit to knowledge sharing and motivated to collaborate with other departments.

In order for all participants to be successful in the knowledge sharing process, all participants need to have access to all of the most up-to-date information due to the ever-accelerating pace of an organization's environment. Meetings and reviews are required to ensure that knowledge is shared and to update members of the team on any new information coming from the points of contact

The point of contact within a team should have a holistic view of knowledge sharing as well as a common goal in mind. The most effective way to share knowledge is to define shared objectives between the points of contact.

Building feedback loops so points of contact can see the impact of their contributions to knowledge sharing can also be a good way to anchor creating points of contact within departments of an organization within a larger context. The more empowered a team is when it is guided by a common vision and understands how to fit their work into the larger context of knowledge sharing.

10. Conclusion

To succeed in these challenging times, an effective management of knowledge is viewed as one of the most important aspects of organizational success. Knowledge has become the most valuable strategic asset of any organization in the twenty-first century. To be able to profit from knowledge, organizations must understand how knowledge is created, shared, and used within the organization. As a means of enhancing the creative capabilities, performance, and competitive advantage of an organization, employees can share knowledge, and contribute to the application of knowledge, innovation, and education of others. Organizations that have limited access to information and/or knowledge may be reluctant to adapt and share their knowledge. By increasing opportunities for knowledge sharing within an organization, it can be helpful in reducing uncertainty about knowledge within that organization.

There are several organizations in the field of emerging technologies that have invested substantial time and money over the course of the years into the idea of knowledge sharing, as they have realized the potential benefits that can be gained from such a practice. Individuals, organizations, and communities that exchange knowledge do so in a way that permits them to exchange information, knowledge, and expertise related to emerging technologies. In short, knowledge sharing factors are intended to facilitate collaboration, sharing, creation, use, and repurposing of knowledge, which can be achieved through collaboration, sharing, and collaboration. Having an organization and individual share knowledge can make a significant difference in their performance as well as their ability to innovate and expand their knowledge base.

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