

Knowledge Management Applied in Road Freight Transport: A Specific Approach

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Abstract

Knowledge is one of the most important resources of an organisation. Over time, there has been significant interest, both in the academic and in the business context, regarding this topic. However, there is still more to be studied, since knowledge is an intangible aspect that, unfortunately, cannot be quantified. However, the importance of knowledge and its transfer is of utmost importance within any organisation, but especially in small and medium enterprises. While other resources may be consumed, knowledge can only increase, or, at worst, stagnate. The purpose of this piece of work is to highlight the importance of knowledge in medium enterprises operating within the field of road freight transport. To attain this objective, the most appropriate method has proven to be qualitative research. Thus, interviews with both employees and owners of a medium company operating in the specific industry were carried out. The information that was gathered has been recorded and analysed, so that it can showcase how knowledge is formed, used and transferred within an organisation. This study clearly highlights how knowledge management drives competitive advantage in this industry. Furthermore, the study highlights that employees perceive knowledge as being the most useful resource. However, the need of a better flow of communication is also revealed. In addition, barriers such as poor communication and, sometimes, lack of knowledge-sharing have been identified. Furthermore, this study finds that digital tools provide a helpful tool for knowledge-sharing within such an organisation, as they ease and fasten the flow of communication. All in all, this study emphasizes on the importance of knowledge within a road freight transport organisation, highlighting the benefits that arise upon implementing a knowledge management strategy.

Keywords

Knowledge, Knowledge-Based Organisation, Knowledge Flow, Knowledge Management, Knowledge-Based Economy, Road Freight Transport.

Introduction

For thousands of years, theorists have tried to find this concept's most complete, complex and correct definition. Although it has been hotly debated over the years, not even linguists have been able to come up with a satisfactory definition. Cambridge Dictionary (2024) defines the term "knowledge" as "understanding of or information about a subject that you get by experience or study, either known by one person or by people generally." This definition is not only incomplete but also very limiting. First, it reduces the concept of knowledge to the level of the individual, ignoring knowledge from an organizational point of view. Secondly, the area of knowledge is narrowed to a particular field, while knowledge is dispersed and varied, covering many fields.

Organizations are established as institutional entities to develop goods and services because of their ability to facilitate the integration of specialized knowledge held by many people (Grant, 1996). From this point of view, any organization is based on knowledge. This resource is vital, as it is at the core of any institution, dictating how activities are carried out.

Knowledge management refers to the systematic organization and access of experience, information, and expertise to generate new capabilities, facilitate superior performance, stimulate innovation, and generate value (Whelton et al., 2002). Thus, the application of this concept within an organization represents, in fact, a step through which sustainable competitive advantage can be created. In today's global context, where organizations must constantly fight to maintain both their market share and their differentiating status, knowledge-based management is a necessary approach. The concept of a knowledge-based economy appeared in the early 1960s, launched by the economist Fritz Machlup in the first study that quantified knowledge as a widespread concept, measuring its level of production and distribution (Machlup, 1962). In his work, he argues that although the concept of knowledge falls within the sphere of philosophy, it is imperatively necessary in every field, and its definition falls to the experts in each field.

This paper aims to emphasize the importance of knowledge within a medium-sized organization operating in the field of road freight transport. To fulfill its purpose, this article will be structured in multiple sections. The first section of this paper is the literature review, providing the necessary background for understanding the concept of knowledge and how it is used within the business environment. Subsequently, the research methodology shall be presented, providing reasoning for the qualitative approach chosen for this study. The findings shall then be presented, discussed, and integrated into the relevant literature. Lastly, this paper will present relevant conclusions based on what has been revealed and how it contributes to existing literature.

Literature review

The following section provides the theoretical background that is necessary to proceed with this study. Thus, concepts such as knowledge, knowledge-based organization, knowledge-based management, and knowledge management shall be analyzed thoroughly.

Defining Knowledge

Knowledge is an amalgamation of contextual information, framed experience, expertise of individuals and value derived from such amalgamation, ultimately leading to innovative ideas and achieving exceptional experiences (Abubakar et al., 2019). Knowledge encompasses various elements such as organizational culture, skills, reputation, intuition, and formalized theory that collectively shape and influence human behavior and cognition. Figure 1 represents a visual expression of the knowledge concept, emphasizing how they are formed and the aspects arising from their use and capitalization.

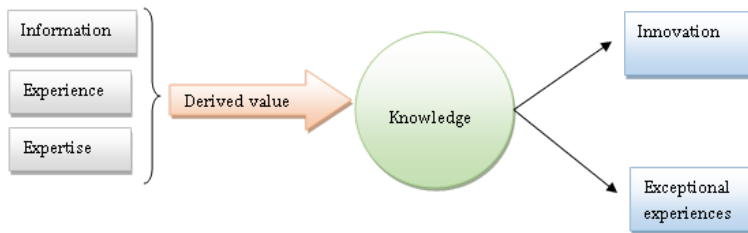


Figure 1. Defining knowledge
Authors' contribution

Plato defined knowledge as "justified true belief." This definition implies that once assimilated, knowledge becomes an integrated part of an entity, as it means that information is received, assimilated, and accepted as authentic, thus gaining credibility. By storing and using knowledge acquired over time, individual conception is formed. Cognition refers to the cognitive process of using reasoning to analyze and interpret information and facts to facilitate active engagement in tasks such as problem-solving, decision-making, learning, and teaching (Beckman, 1999).

Lehrer (2018) identifies three essential criteria that must be met simultaneously to be able to categorize information as knowledge. First, the knowledge must be accurate, meaning that it cannot be obviously refuted or countered with clear arguments to the contrary. Secondly, it is absolutely necessary that they can be accepted. In other words, to assimilate new information, it is necessary to accept that it is true and credible; thus, acceptance is defined as not an attitude, but a validation of information to discover the truth and avoid errors. Third, knowledge must be justified. Thus, it is necessary that the information can be supported by concrete arguments and evidence in order not to allow the existence of any doubt.

Regarding the classification of knowledge, a distinction can be made between a centralized governance system, characterized by formal structures and hierarchical mechanisms, and a community-led structure, influenced by informal arrangements (Wulf and Butel, 2017). From this perspective, the concept of knowledge space can be classified into two distinct types: one that is characterized by the lack of a clear definition and structure, which makes it suitable for the purpose of knowledge exploration; and another that is highly defined and specialized, making it more suitable for the purpose of knowledge mining.

Nonaka (1991) classified knowledge as either "tacit" or "explicit" based on its codification and transferability. Explicit knowledge is easily transferable and can be systematically codified, but tacit knowledge is firmly embedded in the organizational system. When knowledge is in its passive state, it lacks utility. However, when knowledge is activated through creative processes to apply, nurture, and share, it has the potential to lead to exceptional performance. In this context, knowledge management refers to the systematic process of leveraging latent knowledge within organizations to generate advantages and enhance competitiveness.

The distinction between know-how and know about has been widely recognized in the management literature. This distinction can be characterized by various dichotomies, such as subjective versus objective knowledge, implicit or tacit versus explicit knowledge, personal versus propositional knowledge, and procedural versus declarative knowledge (Grant, 1996). Although both types of knowledge have advantages for an organization, know-how knowledge is much more valuable as it facilitates the optimal conduct of operations. On the other hand, know-how can play an important role in identifying the advantages and disadvantages of new ideas or entering a new market, either geographically or industry-wise.

The knowledge-based organization

Organizations must rely on knowledge to survive, adapt, and succeed in today's global dynamics (Zack, 2003). In the previous subsection, both the definition of knowledge and its importance within an organization were explained. However, a particularly important aspect, namely the exploitation of knowledge within an organization, was not discussed. Given the many opportunities for development, innovation, increasing profitability, and creating a competitive advantage that is difficult to imitate, the knowledge-based organization should be a concept adopted by as many entities as possible, especially those in the private sector, profit-oriented.

Products and services reflect only the perceptible or tangible aspects that customers encounter, representing only the surface level of a larger framework. Like an iceberg, a significant part of an organization's productive capabilities lies below the surface, hidden in the organization's intangible assets, commonly referred to as knowledge about operations, methodologies, and rationale (Zack, 2003).

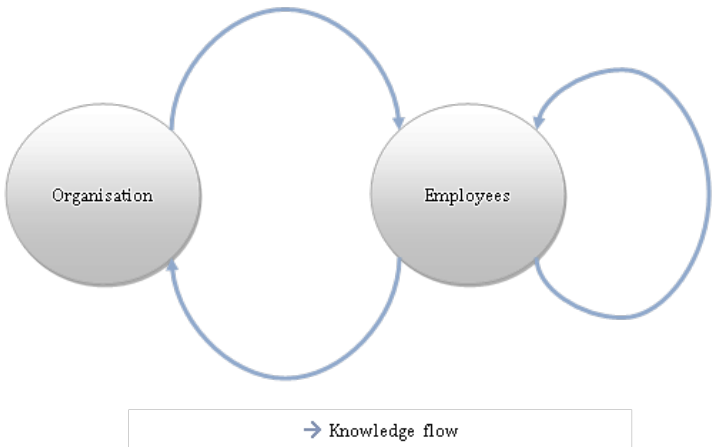
The knowledge-based view of the organization requires the examination of interdependence as a constitutive element of organizational structure and the subject of managerial decision-making (Grant, 1996). Thus, the policies and strategies implemented by the organization's management should be dictated by knowledge and the interdependence between it and the organization rather than being dictated by the dominant production technology. Keeping up with the latest technologies on the market is a costly process, which can often be mitigated by using knowledge and combining it with existing means of production.

In an economic context characterized by ubiquitous uncertainty, knowledge emerges as a singular and sustainable fundamental aspect for obtaining and sustaining competitive advantage (Nonaka, 2007). In the face of market fluctuations, rapid proliferation of technologies, multiplication of competitors, and rapid obsolescence of products, organizations that achieve success continuously generate new information, distribute it

widely within their organization, and promptly integrate it into the new information, technologies, and products.

Knowledge-based management

Based on the underlying assumptions regarding the attributes of knowledge and its significance in the context of production, the organization is perceived as an institutional entity that facilitates the consolidation and coordination of knowledge (Grant, 1996). Thus, to be able to apply this concept within an organization, the attribution of knowledge must be a process and not a state. In this sense, the information flows between the organization and employees, as well as exclusively between employees, must be constant and continuous. Figure 2 illustrates the graphical representation of knowledge flow within an organization implementing knowledge management.



***Figure 2. Knowledge flow within an organization
Authors' contribution***

This approach allows for the enrichment of common knowledge and the expansion of individual knowledge. By ensuring a constant and continuous flow of knowledge, organizations foster both increased financial and organizational performance, as well as innovation and improvement of processes and products/services offered. From this point of view, knowledge plays an important role in the perceived quality of a good.

Because of its many advantages, the concept of knowledge-based management has long been adopted in the world of corporate organizations. However, organizations in fields such as architecture, engineering, and construction have only adopted it in the last two decades (Whelton et al., 2002). Its adoption in organizations in various fields has allowed for the thorough study of knowledge-based management and its effects. Thus, knowledge management has become a comprehensive field encompassing multiple disciplines and offers a wide range of approaches and tools for identifying, obtaining, validating, structuring, and implementing knowledge within an organization (Whelton et al., 2002).

Knowledge management is a comprehensive framework that encompasses the creation of organizational strategies, structures, and processes. Its main objective is to enable organizations to effectively use existing knowledge to facilitate the assimilation of new information and to provide economic and social value to both their customers and communities (Awad, 2007). Since organizations are accountable to stakeholders, their operations and environmental effects should align with stakeholder expectations and their stated goals. In this sense, knowledge management is a link between what is said, what is done, and how it is done.

Knowledge management refers to the systematic approach to acquiring, designing, managing, and disseminating knowledge within an organization with the aim of improving performance. This includes reducing costly rework, speeding up work processes, and using best practices (Abubakar et al., 2019). Thus, knowledge management is a continuous process that must be adopted at all organizational levels to generate competitive advantage and improve the organization's overall efficiency.

Knowledge management strategies encompass the use of knowledge, focusing on how knowledge is integrated and used to provide value to organizations (Garcia-Perez et al., 2017). As mentioned earlier, knowledge management focuses on individual, organizational, and employee knowledge as well as shared knowledge. By combining them, new strategies can be outlined, much more effective than those based strictly on the information within the organization. Thus, all parties involved benefit.

Knowledge management refers to the systematic and effective management of creating, acquiring, retaining, and disseminating knowledge in an organizational context. Organizations can learn from past experiences, retain critical information, and improve overall performance. A knowledge management system facilitates the identification, retrieval, and use of knowledge, thus encouraging progress, innovation, and increased value for the consumer (Jasin et al., 2024). The fundamental indicators of knowledge management include individuals, leadership, Internet technology, organizational structure, and the learning process.

The knowledge-based economy

The knowledge-based economy is characterized by the production and supply of goods and services obtained through activities that involve the intensive use of knowledge (Powell & Snellman, 2004). These activities not only contribute to the rapid advancement of technology and science, but also result in an equally rapid obsolescence. Given the fact that resources of this type are constantly developing, the use of knowledge enhances innovation processes. The fundamental elements of a knowledge-based economy comprise an increased reliance on intellectual capabilities rather than physical resources or natural resources (Powell & Snellman, 2004). This is accompanied by efforts to incorporate improvements at all stages of the manufacturing process, from research and development labs to factory operations and customer interactions.

The Organization for Economic Co-operation and Development has proposed a classification of five distinct categories of indicators for the purpose of assessing the knowledge-based economy. These categories include inputs, stocks and flows, outputs, networks, and learning (OECD, 1996). Over time, by conducting several studies on the knowledge-based economy, it has been found that these indices are not sufficient. Thus,

their number is constantly increasing, in 2005, the existence of almost 60 criteria was observed (Godin, 2005).

Through the specific characteristics of the knowledge-based economy, it can be easily distinguished compared to the traditional economy (Tocan, 2012). First, this area of economics does not revolve around the consumable nature of resources but instead focuses on abundance. Secondly, geographic location is no longer a limiting factor in organizational impact and capacity. Using the right technology and methodologies, it is possible to establish virtual markets and virtual organizations that offer advantages such as increased efficiency and flexibility, continuous operation, and worldwide accessibility. It is also noted that by using knowledge of organizational processes, the products or services obtained can be sold at a higher price.

Methodology

To analyze the importance of knowledge and understand how it flows within an organization, a qualitative approach has been chosen: the interview. The present study is based on qualitative research methods, taking the form of a semi-structured interview. Interviews are more effective than questionnaires in collecting narrative data, which allows researchers to examine people's perspectives and beliefs in depth (Kvale, 1996, 2003, cited by Alshenqeeti, 2014). Keeping in mind that the objective of the study can only be achieved by fully understanding consumer perception, the research tool used was the semi-structured interview. This type of interview involves the formulation of an interview guide in advance, which reflects the research objectives and allows obtaining satisfactory answers in relation to the research questions, and at the same time, facilitates obtaining satisfactory answers by guiding the respondents to obtain relevant and satisfactory information (Kallio et al., 2016). In this type of interview, the researcher has more flexibility to deepen the opinion of the respondents, as predefined questions formulated in the interview guide are used, but offers the opportunity to add relevant questions during the discussion (Alshenqeeti, 2014). In addition, this method allows participants to provide more information that may be important in the process, such as personal stories or ideologies they believe in.

Since this study focuses on knowledge within organizations that operate in the field of road freight transport, a company that fits in the described profile has been chosen to be analyzed. The business entity fits the criteria for medium organizations in terms of size and turnover. However, it is important to mention that the organization is a family business. Thus there may be certain particularities specific to this type of organisation that may arise. Furthermore, employees on different levels of the hierarchy were asked to participate in individual interviews to understand how they perceive knowledge and how it flows within the selected organization. In total, six persons were interviewed. Considering the purpose of this study, this approach aims to understand subjective views on the matter. In addition, the researcher has observed the organization and how it operates over six months. All the observations regarding the topic of this study have been noted through time and analyzed alongside the data gathered in the interviews.

The information gathered was then analyzed in accordance with the research questions. This study aims to answer the following questions: (1) How is knowledge perceived in a medium-sized organization? (2) How do medium-sized road freight transport

company employees perceive current knowledge-sharing practices? (3) What role do digital tools and technologies play in enhancing knowledge and associated concepts within the organization?

Results and discussion

The sample of this study comprised six persons, as follows: the two owners and four employees, two of whom held higher level positions, one who had more experience in the organization, and an employee who has been working for the organization for less than a year. The respondents were chosen so that their answers could showcase how knowledge and its associated concepts are applied and integrated within the organization. The communication was good during the interviews, and many valuable insights were gathered. The next part of this paper aims to answer the research questions and make parallels with relevant literature.

How is knowledge perceived in a medium-sized organization?

First and foremost, the respondents defined what knowledge means in the organization. The most common themes were routes, types of freight, and pricing. Moreover, the participants highlighted that networking plays a crucial role in knowledge management in his studied organization. This is mainly because it enables communication and information exchange with people outside the organization. The information is transferred to the organization, increasing knowledge and increasing competitive advantage.

Business models based on the development and accumulation of knowledge-related resources are considered the most significant sources of competitive advantage (Garcia-Perez et al., 2023). The final product and financial performance of a company represent the sure visible aspects of an organization's success, but to be able to offer the best possible product or service and, implicitly, increase financial performance, organizational processes must be constantly improved and adapted. From this perspective, knowledge plays a crucial role, as it facilitates problem-solving and innovation.

Owners, who also have executive positions within the organization, highlighted the fact that most of the decisions are based on knowledge gathered in years of experience. This has allowed them to make fewer errors in new projects and has overall eased the decision-making process. In addition, the owners, who are also the founders of the business, reckon that processes run smoother if proper knowledge is applied and shared. In other words, the development of the organization is based on knowledge.

These findings align with previous literature on knowledge management and how it can enhance organizational development. The concept of knowledge management has become a central topic of interest in the field of organizational development, serving as a strategic approach to stimulate innovation and gain a competitive advantage (Bastidas et al., 2023).

A knowledge-based organization comprises four key characteristics, namely process, place, purpose, and perspective (Zack, 2003). The term "process" encompasses the various operations carried out within an organization, including both the primary

functions related to the creation of products or the provision of services, as well as the secondary functions, which are of a supporting but equally important nature. The term "place" refers to the boundaries of an organization, which, in the context of information sharing and creation, frequently extend beyond conventional legal boundaries. Purpose encompasses a business's overall mission and strategic approach, delineating the intended means of effectively serving its customer base while maintaining profitability. Perspective is the cultural beliefs, values, and norms that shape and constrain an organization's choices and behaviors.

How do medium-sized road freight transport company employees perceive current knowledge-sharing practices?

In the studied organization, knowledge is shared via multiple channels, such as phone calls, text, WhatsApp messages, and e-mails, as well as through face-to-face conversations. Since various channels are used, information is not centralized, and sometimes it is hard to trace. Even if these channels allow for knowledge to be transferred fast, if it is not absorbed on time, it may be challenging to find it after some time has passed. That is why it is important to integrate the knowledge into the transport management platform so that it can be easily accessed.

Integrating diverse knowledge within organizational systems and processes not only enhances organizational performance but also increases the overall value of knowledge within the organization (Tocan, 2012). This is due to the fact that, by combining the individual knowledge held by individuals within an organization with the common knowledge, the overall level of knowledge increases, both at the organizational and individual levels. Thus, knowledge integration is a win-win process, both for the organization and for its human capital.

The concept of a knowledge-based economy refers to economies that are based primarily on the generation, dissemination, and use of knowledge and information (OECD, 1996). Thus, the knowledge-based economy refers to a continuous flow of information from individual to organization, organization to individual, and individual to individual. This process increases the general level of shared knowledge, and their integration within organizational systems is facilitated.

Poor communication is the most common issue identified within the context of knowledge sharing. Issues such as interpersonal communication were raised, as well as a poorly organized process of communication. This aspect, in turn, affects the speed of processes. Furthermore, one of the barriers that were identified is the fear of making mistakes. Effective knowledge management enables organizations to gain insights and learn from failures and achievements within their operational activities (Tohara, 2021). Although mistakes are often perceived as a negative, they can actually be the key driver of innovation. For example, implementing a completely new project that has not been done before within the organization can prove to be a difficult and error-ridden process. However, if mistakes are corrected and understood, they can lead to enormous progress that would not have been possible without them.

What role do digital tools and technologies play in enhancing knowledge and associated concepts within the organization?

According to the respondents of this study, digital tools and technologies play a crucial role in enhancing organizational communication. Since the information is available on a shared platform that operates as a transport management system, knowledge can be transferred more easily from one department to another. In addition, all the respondents highlighted that the tracking software available for interested parties is a very useful tool for gathering, storing, and sharing information.

Recent studies show the need to integrate knowledge management with digital resources. Competencies associated with organizational governance and management should encompass the essential capabilities, knowledge, and skills to effectively oversee (i.e., plan, manage, operate, and use) the use of digital technology responsibly and innovatively (Bastidas et al., 2023). Given that technology is a key element in the contemporary organizational environment, all organizational processes must be digitized as much as possible to facilitate workload and development.

Conclusions

As an entity develops and evolves, it encounters other entities and different environments; new knowledge is implicitly assimilated. Thus, knowledge could be defined as the totality of information, notions, ideas, and concepts that an entity has accumulated and assimilated throughout its existence, which are an integrated part of the way both the internal and external environment are perceived outside. Knowledge, undeniably, represents the most valuable resource, both for individuals and for organizations. Management needs to consider the totality of knowledge that an organization and its employees possess to capitalize on it.

It has been showcased that employees perceive knowledge as a very important aspect that guides their everyday activities. Furthermore, lack of knowledge has been highlighted as a factor that affects the speed of various processes within the organization. Unlike finite resources that diminish with use, information and knowledge possess the unique characteristic of being shareable and able to expand through practical implementation.

The present paper has certain limitations, mainly due to the approach chosen for the research. First and foremost, generalizations cannot be made since the study was based on information gathered from a singular business entity. Thus, further research involving studying similar organizations in knowledge management is needed. Furthermore, considering that the organization is a family business, the information flow differs from other types of organizations. However, interesting aspects were highlighted in this study and can be discussed in further research, such as the knowledge flow in family businesses and how family relationships can affect communication and knowledge sharing.

References

- Abubakar, A. M., Elrehail, H., Alatailat, M. A., & Elçi, A. (2019). Knowledge management, decision-making style and organizational performance. *Journal of Innovation & Knowledge*, 4(2), 104–114. Science Direct.
<https://www.sciencedirect.com/science/article/pii/S2444569X17300562>
- Alshenqeeti, H. (2014). Interviewing as a Data Collection Method: a Critical Review. *English Linguistics Research*, 3(1), 39–45. <https://doi.org/10.5430/elr.v3n1p39>
- Awad, E. M. (2007). *Knowledge management*. Dorling Kindersley, Licensees Of Pearson Education In South Asia.
- Bastidas, V., Oti-Sarpong, K., Nochta, T., Wan, L., Tang, J., & Schooling, J. (2023). Leadership for responsible digital innovation in the built environment: A socio-technical review for re-establishing competencies. *Journal of Urban Management*, 12(1), 57–73. <https://doi.org/10.1016/j.jum.2023.01.004>
- Beckman T. (1999). The current state of knowledge management, Knowledge management handbook. Liebowitz, J. (ed.), CRC Press LLC, USA.
- Cambridge Dictionary. (2024). *KNOWLEDGE | Meaning in the Cambridge English Dictionary*. Cambridge.org; Cambridge University Press.
<https://dictionary.cambridge.org/dictionary/english/knowledge>
- Garcia-Perez, A., Ghio, A., Occhipinti, Z., & Verona, R. (2020). Knowledge management and intellectual capital in knowledge-based organisations: a review and theoretical perspectives. *Journal of Knowledge Management*, 24(7), 1719–1754. Emerald.
<https://doi.org/10.1108/jkm-12-2019-0703>
- Godin, B. (2005). The Knowledge-Based Economy: Conceptual Framework or Buzzword? *The Journal of Technology Transfer*, 31(1), 17–30.
<https://doi.org/10.1007/s10961-005-5010-x>
- Grant, R. M. (1996). Toward a Knowledge-Based Theory of the Firm. *Strategic Management Journal*, 17(Winter), 109–122. JSTOR.
<https://www.jstor.org/stable/2486994>
- Jasin, M., Anisah, U. H., Fatimah, C. E. A., Azra, F. E. A., Suzanawaty, L., & Junaedi, I. W. R. (2024). The role of digital literacy and knowledge management on process innovation in SMEs. *International Journal of Data and Network Science*, 8(1), 337–344.
<https://doi.org/10.5267/j.ijdns.2023.9.020>
- Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic Methodological review: Developing a Framework for a Qualitative semi-structured Interview Guide. *Journal of Advanced Nursing*, 72(12), 2954–2965.
<https://doi.org/10.1111/jan.13031>
- Lehrer, K. (2018). *Theory Of Knowledge*. Routledge.

Machlup, F. (1962). *The Production and Distribution of Knowledge in the United States*. Princeton University Press.

Nonaka, I. (2007, August). *The Knowledge-Creating Company*. Harvard Business Review. <https://hbr.org/2007/07/the-knowledge-creating-company>

OECD. (1996). *General Distribution OCDE/GD(96)102 THE KNOWLEDGE-BASED ECONOMY ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT Paris 1996 34988* <https://one.oecd.org/document/OCDE/GD%2896%29102/En/pdf>

Powell, W. W., & Snellman, K. (2004). The Knowledge Economy. *Annual Review of Sociology*, 30, 199–220. <https://www.jstor.org/stable/29737691>

Tocan, M. C. (2012). Knowledge Based Economy Assessment. *Journal of Knowledge Management, Economics and Information Technology*, 2(5), 1–13. <https://ideas.repec.org/a/spp/jkmeit/1323.html>

Tohara, A. J. T. (2021). Exploring Digital Literacy Strategies for Students with Special Educational Needs in the Digital Age. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(9), 3345–3358. <https://doi.org/10.17762/turcomat.v12i9.5741>

Whelton, M., Ballard, G., & Tommelein, I. D. (2002). *A Knowledge Management Framework For Project Definition* (A. S. Kazi, Ed.). <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=4dad6f724cc79791c2857068b2fa0f91d9a9b7a7>

Wulf, A., & Butel, L. (2017). Knowledge sharing and collaborative relationships in business ecosystems and networks. *Industrial Management & Data Systems*, 117(7), 1407–1425. <https://doi.org/10.1108/imds-09-2016-0408>

Zack, M. H. (2003, July 15). Rethinking the Knowledge-Based Organization. *MIT Sloan Management Review*. <https://sloanreview.mit.edu/article/rethinking-the-knowledgebased-organization/>