LUND UNIVERSITY

SCHOOL OF ECONOMICS AND MANAGEMENT

Degree project in MSc Managing People, Knowledge and Change

May 2024

Exploring Knowledge Acquisition Past Expertise Domains

- A Case Study of a Tech Consulting Corporation

By

Viktor Gullbo

Conrad Herrström

Supervisor: John Murray

Examiner: Anna Jonsson

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Abstract

Title	Exploring Knowledge Acquisition Past Expertise Domains: A Case Study of a Tech Consulting Corporation
Authors	Viktor Gullbo & Conrad Herrström
Supervisor	John Murray
Date	20th of May, 2024
Aim	The aim of this study is to examine how specialists acquire knowledge outside their domain of expertise within a flat organizational structure.
Methodology	This study employs a qualitative research methodology, adopting an abductive approach within the framework of symbolic interactionism. The empirical data consists of ten semi-structured interviews conducted with specialists at a tech consulting organization.
Theoretical Framework	The theoretical framework consists of previous research on knowledge, knowledge management and organizational structure. It also presents research on specialist human capital search behaviors for knowledge.
Contributions	This study offers an understanding into knowledge management within flat organizational structures, specifically through examining the experiences of specialist human capital and their process of acquiring knowledge outside their domain of expertise.
Keywords	Knowledge Management, Flat Organizational Structure, Specialist Human Capital, Knowledge Acquisition, Organizational Learning.

Acknowledgements

First and foremost, we extend our greatest appreciation to our supervisor, John Murray, for his invaluable guidance, support, and encouragement throughout our research journey. His insightful feedback, constructive critiques, and dedication have been significantly helpful in shaping our thesis. We consider ourselves incredibly fortunate to have contacted you and to have been chosen for your supervision. Thank you, John!

Secondly, we would like to express our gratitude to our case company, “TechCo”, and our dedicated contact person, who demonstrated commitment from the start of the project. We are grateful for the warm welcome extended to us and for providing us with the necessary contacts, which facilitated communication with the specialists at TechCo and eased the process of participant recruitment for our study.

Lastly, we wish to acknowledge and thank each other for sharing this memorable journey together. The mutual support and encouragement we provided to one another during the highs and lows of the research process have been invaluable. Collaborating on this thesis has been an enriching experience, and we are grateful for the teamwork that made it possible.

Viktor Gullbo & Conrad Herrström

Lund, May, 2024

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1. Introduction

Questions about exploiting existing knowledge, accessing others' expertise, and generating innovative ideas are fundamental to organizational performance (Jonsson, 2015). According to Zagzebski (2017), knowledge has traditionally been considered a true belief that is justified. The definition implies that for an individual to know something, not only must the belief be accurate and believed by the individual, but there must also be some form of justification for the belief (Zagzebski, 2017). Knowledge, comprising the practical information embedded in an organizations work practices, skills, and processes, has become the primary untouchable asset for firms operating in knowledge-intensive economies (Demarest, 1997). In organizational contexts, knowledge management is crucial, incorporating routines and practices for creating and acquiring knowledge from external sources, internally utilizing it, and integrating it throughout the organizational system (Pellegrini, Ciampi, Marzi, & Orlando, 2020). Although the term "knowledge management" is relatively recent, the concept itself has been examined for a long time (Jonsson, 2015).

The growing focus on organizational knowledge has highlighted the importance of managing knowledge for the organization's benefit. Knowledge management involves identifying and harnessing the collective knowledge within an organization to enhance its competitive edge (von Krogh, 1998). To enhance our grasp of knowledge management within organizations, research argues that the emphasis should be placed on the agents of knowledge, namely, the individuals who are responsible for sharing their knowledge and experiences with others (Jonsson, 2015). According to Myers (2009), organizations depend on the dynamic interplay among organizational structure and individual behavior. Organizational structure, defined as the process of dividing labor into tasks and coordinating them (Mintzberg, 1979), operates on the premise that individual actions are significantly influenced by their surrounding circumstances (Myers, 2009).

The traditional organizational hierarchical structure, where fewer managers have greater authority, requires delegating numerous tasks to employees, which can both positively and negatively affect organizational learning depending on the context (Reitzig, 2022; Bresman & Zellmer-Bruhn, 2013). In contrast, a flat organizational structure, advocated by Hankinson (1999), fosters open information sharing and builds trust among team members, factors that

significantly enhance organizational performance (Alexy, 2022). This flatter hierarchy, gaining wider acknowledgement as noted by Argote, Lee, and Park, (2020), aligns well with the needs of knowledge-intensive firms, where work is predominantly intellectual and analytical, filled with specialists who possess deep, localized knowledge within knowledge-intensive domains (Taylor & Greeve, 2006; Alvesson, 2004). These structures raise questions about their impact on organizational learning and knowledge management. Understanding the conditions under which hierarchy either facilitates or constrains organizational learning is a crucial area for further research (Argote et al., 2020).

Building upon the concept of hierarchy, particularly within flat organizational structures, it is essential to analyze the function of organizational hierarchy. Additionally, we aim to delve further and explore the role of specialists within these flat organizations and their ability to acquire knowledge beyond their specialized domains. This topic has shown mixed perspectives, resulting in a need for further examination (Argote et al., 2020). A key concern is the value of specialist versus generalist human capital. As mentioned, specialists in these discussions possess deep, localized knowledge within specific domains, while generalists have all-round skills adaptable to various situations. This distinction affects individuals' future knowledge search behaviors and the diversity of the available knowledge (Taylor & Greeve, 2006; Brown & Duguid, 1991). The specialist organization is connected to exploitation, and relies on narrow and in-depth searches to leverage existing knowledge for well-defined solutions. As exploitation reinforces success within known domains, firms often prioritize familiar areas over novel ones, potentially hindering the exploration of new knowledge (Kang & Snell, 2009).

The importance of knowledge acquisition within organizations is particularly significant when combined with highly specialized knowledge, highlighting a critical area for further examination, which is how specialists within flat organizations acquire knowledge outside their domain of expertise. This becomes increasingly relevant given Dougherty's (1992) argument that specialized human capital often maintains a 'functional bias,' limiting their ability to share and integrate new knowledge beyond their areas of expertise. Furthermore, with the rising popularity of flat organizational structures, this issue requires thorough investigation. Therefore, this study aims to delve deeper into how specialists within flat organizations navigate the expansion of their expertise, offering insights into their experiences and perceptions of knowledge acquisition outside their specialized domains.

This thesis intends to explore the interesting phenomenon of specialists working within flat organizational structures, focusing on our case study of the company TechCo (fictitious name). This organization, which specializes in providing IT solutions, operates with software engineers who each possess deep expertise in their respective domains. In this flat organizational setup, these engineers work independently on their projects, yet share collective responsibility for client projects. A unique aspect of TechCo is that the specialized knowledge of each engineer is so advanced that if one engineer is unavailable, others cannot easily substitute for them. This situation presents a fascinating opportunity to investigate how specialists in flat organizational setups navigate the challenges of knowledge acquisition outside their primary area of expertise. Understanding this dynamic is essential because it highlights the adaptability and capability to remain effective for flat organizational structures within organizations that rely heavily on knowledge. This understanding provides important insights into the wider impacts on organizational design and knowledge management, highlighting how these structures support or hinder operational efficiency and innovation.

1.2 Purpose of Our Study

The concepts of knowledge management and organizational structure are not new and have been explored in previous research (Ferreira, Mueller & Papa, 2018). These topics have been central points for scholars and practitioners alike, seeking to understand how effectively managing knowledge and designing organizational frameworks can drive efficiency, innovation, and competitive advantage. The continued interest in these areas reflects their critical role in adapting to evolving market demands and technological advancements, making them continuing subjects of study (Mahmoudsalehi, Moradkhannejad & Safari, 2012).

Discussions regarding knowledge-intensive firms often explore the distinction between generalists and specialists within organizational contexts. Additionally, there are ongoing discussions about the influence of flat organizational structures on knowledge workers and their knowledge acquisition processes. Studying this topic is important as it delves into how specialists within a flat organizational structure pursue knowledge beyond their expertise, an aspect that remains relatively unexplored in current literature. Understanding this problem could improve how we think about knowledge acquisition beyond expertise domains, which

can make organizations more efficient and innovative. Therefore, the purpose of this study is to examine how specialists navigate the process of acquiring knowledge outside their domain within a flat organizational context. Since flat organizational structures have gained popularity, it is essential to understand how specialists manage knowledge acquisition in this environment. By focusing on specialists and the flat organizational structure, we aim to examine the factors that influence specialists' ability to acquire knowledge outside their domain and how it shapes their expertise development within flat organizational structures. We, therefore, propose the following research question:

How do specialists within flat organizations acquire knowledge outside their domain of expertise?

1.3 Research Outline

The following section outlines our thesis by providing a summary of each chapter. Following this introduction, Chapter Two delves into the theoretical framework and relevant literature surrounding knowledge, knowledge management and organizational structure. It concludes with a summary of these concepts and how they influence each other and impact how organizations learn. Chapter Three examines the study’s methodology, including philosophical grounding, research approach, data collection, data analysis, ethical considerations, and the studies credibility and reflexivity. Chapter Four presents the empirical findings along with an analysis of the data. Chapter Five engages in a discussion of the empirical findings in combination with relevant theories. Finally, Chapter Six encompasses the empirical findings, theoretical contributions, limitations, suggestions for future research, and practical implications.

2. Theoretical Framework

The following chapter presents the theoretical framework upon which this thesis is based, discussing how existing literature on knowledge informs our understanding of specialist learning within flat organizations. This includes a discussion on explicit and tacit knowledge, emphasizing their roles in knowledge creation and organizational learning. The framework also explores knowledge management, focusing on processes such as codification and personification, along with knowledge transfer and sharing, and addresses the common challenges in managing knowledge effectively. Additionally, it examines the impact of organizational structure, particularly flat organizational structures on knowledge processes and specialist human capital. Each concept chosen for this framework is critically discussed to demonstrate how they collectively influence the processes by which specialists acquire knowledge outside their domain of expertise. The selection of literature has been carefully chosen to provide a comprehensive understanding of the interplay between knowledge management practices and organizational structure, setting the stage for the arguments and findings detailed later in this thesis.

2.1 Knowledge

2.1.1 Introducing Knowledge

For centuries, researchers and philosophers have explored the nature of knowledge without reaching a consensus on a singular definition, leading to the development of various theories that categorize its different forms and dimensions (Hislop, Bosua & Helms, 2018). This ongoing debate has shifted focus from seeking a universal definition to understanding the types and processes of knowledge within different contexts.

One foundational theory is the concept of justified true belief, which suggests that knowledge must be true, believed, and justified by evidence or reasoning (Zagzebski, 2017). Building on this, Polanyi (1983, cited in Cook & Brown, 1999) introduces the distinction between tacit and explicit knowledge. Tacit knowledge, exemplified by the intuitive skills of a cyclist, is inherently understood and utilized but often difficult to articulate. In contrast, explicit knowledge consists of information that can be clearly documented and shared, such as through manuals or databases (Polanyi, 1983, cited in Cook & Brown, 1999). Tacit knowledge can also be referred to as “know-how”, which includes the insights and intuitions

from personal experience and is crucial for day-to-day operations and problem-solving in dynamic environments (Nonaka & Takeuchi, 1995). Explicit knowledge, or "know-what", involves information that can be codified and is essential for structured training and standardized processes across an organization (Nonaka & Takeuchi, 1995). These distinctions are critical in understanding how individuals and groups within organizations manage and acquire knowledge.

In the context of flat organizations, where hierarchies are minimal and decision-making is often decentralized, the acquisition and sharing of knowledge become both a challenge and an opportunity. Individual knowledge in such environments is shaped by personal history and cognitive processes, while group knowledge emerges from shared practices and collective experiences (Wenger, 1998). Hecker (2012) explains how collective knowledge is not only a collection of individual knowledge but involves complex layers of shared understanding and practices that facilitate coordinated action. This understanding underscores the significance of collective knowledge as a key for organizations to pursue its goals by efficiently working together and generating new ideas (Hecker, 2012). The interaction between individual and collective knowledge in flat organizations therefore foster a unique landscape for learning, facilitating the stream of tacit and explicit knowledge among specialists who might not have formal authority but need to collaborate closely across various domains.

2.1.2 Knowledge Creation

One of the most well-known frameworks for knowledge creation is provided by Nonaka and Takeuchi (1995) with their Knowledge Creation Theory, and more specifically the SECI model, which lays its foundation in the conversion of tacit and explicit knowledge. In the SECI model, there are four modes of knowledge conversion which happen between socialization, externalization, combination, and internalization (Nonaka & Takeuchi, 1995). The modes of conversion are tacit to tacit, tacit to explicit, explicit to explicit, and explicit to tacit.

Socialization, the initial phase in the knowledge conversion process, involves individuals sharing their tacit knowledge through daily interactions, fostering new insights and developing shared practices and values (Hislop et al., 2018). This stage is particularly critical in flat organizations, where hierarchical barriers are minimal, and knowledge flows more freely among peers (Reitzig, 2022). Externalization follows as the second phase, where tacit

knowledge is articulated into explicit forms, such as language and models, moving from individual to group understanding (Nonaka & Takeuchi, 1995). This process involves dialogue and the challenging of ideas to refine and develop knowledge further. The third step, Combination, is the process where explicit knowledge is collected, organized, and disseminated to generate new insights. In order for the combination mode to work effectively, knowledge must be systematically captured and shared throughout the organization (Nonaka & Takeuchi, 1995). Internalization, which is the final stage of knowledge creation, transforms explicit knowledge back into tacit form, moving it from the organizational to the individual level, where explicit knowledge, such as rules and manuals, is integrated into daily work practices until it becomes a habit (Nonaka & Takeuchi, 1995). This ongoing cycle suggests that knowledge is never static as the internalization of explicit knowledge fosters the development of new tacit knowledge, potentially initiating another cycle of socialization and further knowledge creation.

In the process of socialization, people share tacit knowledge through direct interactions with others, like in education, mentorship, or within communities of practice (Nonaka, Toyama, & Konno, 2000). The last mentioned interaction has been studied by Wenger (1998) with his concept of learning as a social process, grounded in the dynamics of communities of practice. According to Wenger (1998), communities of practice underscore the essence of knowledge creation as a collective process, where individual contributions and collective knowledge intertwine to foster a richer understanding. Trowler and Turner (2002) propose that becoming a member of an organization is more about socialization than formal education, supporting the claim that the informal learning from team members is crucial for the knowledge creation process. In a flat organization, characterized by fewer layers of hierarchy and informal interactions (Alexy, 2022), this process is essential for acquiring new knowledge.

Amin and Roberts (2008) go beyond the traditional communities of practice framework, suggesting that the understanding of collective learning needs to be broadened to include various forms of learning that occur in different organizational contexts. It is clear that high creativity, epistemic, professional, or virtual environments foster distinct forms of learning and knowledge creation (Amin & Roberts, 2008). Therefore, Amin and Roberts (2008) call for a broader description and understanding of the nature of community of practice, meaning that learning and knowledge creation are inherent, personal, and continually evolving processes. This is especially relevant in flat organizations where cross-disciplinary and

flexible learning approaches are necessary to adapt to rapidly changing environments and complex challenges.

2.1.3 Organizational Learning

Organizational learning stands at the crossroads of individual knowledge transformation and collective growth, shaping the future of businesses in terms of performance. Argote and Hora (2016) describe organizational learning as encompassing the creation, retention, and transfer of knowledge, which significantly affects an organization's performance. The main concern of organizational learning, according to Jonsson (2015), is understanding how individuals within an organization observe and adopt each other's learning methods, and whether these individual learning processes can be converted into collective organizational learning. This concern is illustrated in the 4I-framework for organizational learning by Crossan, Mary, Lane, Henry, White, and Roderick (1999). The 4I framework conceptualizes organizational learning through four interlinked processes: Intuiting, Interpreting, Integrating, and Institutionalizing, demonstrating how individual insights evolve into organization-wide practices (Crossan et al., 1999). In this context, the 4I-framework acts as a complementary framework to the SECI-model, with the purpose of outlining the different steps in the organizational learning process, showing how knowledge moves from the individual to the team and then to the whole organization.

The initial step, intuiting, is a subconscious process where individuals, through their experiences, recognize patterns or innovative possibilities within the organization. This process is crucial for both recognizing patterns like an expert and generating new ideas like an entrepreneur (Crossan et al., 1999), highlighting the importance of intuition for learning and creating new knowledge in organizations, particularly in flat organizations where the flow of information is less restricted by hierarchical barriers (Reitzig, 2022). Interpreting is the second phase, a conscious process where individuals use language to shape and express their insights, forming cognitive maps that help explain their intuitions and sensations (Crossan et al., 1999). Here, people develop a shared language within groups that enables the articulation of complex ideas and fosters collective interpretation and action based on individual experiences and perceptions. Antonacopoulou (2006) adds that learning includes not just the conscious efforts of interpretation and expression but also unconscious elements, influenced by social contexts. Her perspective underscores learning as a socially embedded

phenomenon, emphasizing the critical role of social environments in shaping both individual and organizational learning processes (Antonacopoulou, 2006).

The third phase, Integrating, focuses on evolving a shared understanding within a group to achieve collective action. This is facilitated by ongoing conversations and shared practices that lead to a collective mindset and mutual adjustments (Crossan et al., 1999). The focus on ongoing conversations and shared practices aligns with Jonsson (2015), who emphasizes the significance of knowledge sharing in day-to-day work, highlighting the role of structured routines, interactions, and discussions in facilitating learning and efficient work processes. In flat organizations, where formal hierarchies are minimized, the integration process is enhanced through the development and evolution of language via dialogue, allowing groups to construct shared meanings in these interactions, which in turn guide coordinated actions and contribute to the organizational learning (Crossan et al., 1999).

If done effectively, integration leads to renewal through the institutionalization of these shared practices. Institutionalizing, the final phase in the 4I framework, is where the learning achieved by individuals and groups becomes embedded into the organization's systems, structures, routines, and practices, ensuring that these learnings continue beyond the time any single member is part of the organization (Crossan et al., 1999). By detailing the progression from intuiting to institutionalizing, the 4I-model highlights the essential processes through which individual insights can evolve into collective capabilities. This is especially relevant in flat organizations where hierarchical barriers are minimal, and information flows freely across levels (Alexy, 2022). The framework underscores the importance of creating a learning environment that not only retains knowledge but also adapts to new challenges and opportunities.

The SECI model by Nonaka and Takeuchi (1995) and the 4I-framework by Crossan et al. (1999) serve as foundational frameworks in the study of knowledge creation and organizational learning within organizations. These models are particularly relevant for examining how specialists acquire knowledge outside their areas of expertise, highlighting the dynamics of tacit and explicit knowledge transformation and integration at both individual and organizational levels. Both frameworks explain the continuous cycle where knowledge is shared, synthesized, and embedded within the organization, emphasizing the significance of informal interactions and knowledge sharing (Nonaka & Takeuchi, 1995;

Crossan et al., 1999). This perspective helps us see how specialists move beyond their usual areas to drive innovation in environments that need quick changes and continuous learning, potentially helping us understand how knowledge is acquired and exploited in flat organizations.

2.2 Knowledge Management

2.2.1 Introducing Knowledge Management

The concept of knowledge management has gained significant attention since the mid-1990s, both in academia and among professionals (Jonsson, 2015). This field introduces new phenomena and practices for managers to understand and master, according to Alvesson and Kärreman (2001). They detail two primary approaches to managing knowledge within organizations: one leveraging technological advancements like the internet, intranets, and email, and the other emphasizing social relationships and interactions.

March (1991) highlights a key aspect of knowledge management early in the discussion: the balance between exploring new opportunities and exploiting established practices. He argues that while exploiting existing knowledge can enhance short-term effectiveness, it might hinder long-term innovation and adaptability. This balance is crucial for learning within an organization's code of conduct and gaining a competitive advantage. March (1991) argues that processes prioritizing the exploitation of existing knowledge over exploring new possibilities may lead to short-term effectiveness but can be damaging in the long run.

The tension between exploration and exploitation underscores the broader challenges in defining and implementing effective knowledge management strategies. Despite the growing discussions, defining knowledge management precisely remains challenging (Jonsson, 2015). Some scholars argue that the vague definitions of both 'knowledge' and 'management' contribute to the difficulty in understanding its role in enhancing how knowledge is handled within organizations (Alvesson & Kärreman, 2001). McInerney and Koenig (2011) describe the aim of knowledge management as facilitating extensive and accessible information throughout an organization. However, Jonsson (2015) suggests that there is uncertainty about whether research has thoroughly investigated knowledge itself or has mainly focused on the aspect of information sharing. This uncertainty comes from a lack of studies examining how people share knowledge in their daily work and the ongoing disagreement among researchers

about the true essence of knowledge management. This debate has led to many failed attempts at effectively managing knowledge (Jonsson, 2015).

The exploration of both technological and social approaches to knowledge management is particularly relevant, as it reflects the structures and processes that facilitate or hinder knowledge sharing in less hierarchical environments. This includes a focus on codification strategies, which involve documenting and storing knowledge, as well as personification strategies that rely on direct person-to-person knowledge transfer (Hall, 2006). The distinction between exploration and exploitation, linked to these strategies of codification and personification, will be further elaborated in the following section. This distinction is another important aspect to consider when studying individual knowledge acquisition.

2.2.2 Codification and Personification

The concept of codification is central to many discussions in knowledge management literature, where it is viewed as the primary method for making knowledge "transferable" within an organization. This principle argues that knowledge needs to be circulated or "transferred" to be fully utilized across different parts of the organization (Hall, 2006). However, Hall (2006) argues that the difficulties involved in the codification of knowledge, both as a concept and as a process, are not yet fully understood. Therefore, there is a recognized need to delve deeper into understanding how knowledge codification can effectively facilitate knowledge transfer.

Building on this understanding, Cowan and Foray (1997) define knowledge codification as the process of converting knowledge into messages that can be processed as information. This process not only transforms knowledge into a commodity, making it more definable and detailed in terms of content and intellectual properties, but also reduces uncertainties and information asymmetries in transactions involving knowledge. By making knowledge transferable independently of the individuals who possess it, codification simplifies market transactions involving knowledge, which can be complex when dealing with tacit knowledge (Cowan & Foray, 1997). This transformation enables the exploitation of knowledge, as codified knowledge can be more easily utilized, duplicated, and distributed across different parts of the organization and beyond (Li, Lee, Li & Liu, 2010). This facilitates not just operational efficiencies but also enhances strategic capabilities, allowing organizations to leverage codified knowledge for competitive advantage (Cowan & Foray, 1997).

On the other hand, the personification of knowledge emphasizes that knowledge exchange primarily occurs through social interactions, where the focus is on exploring and discovering new knowledge (Jonsson, 2012). This approach views IT systems as facilitators, not the main conduits for knowledge transfer. This is tightly connected with the individuals who possess the knowledge, stressing the importance of direct interaction among knowledgeable individuals to foster effective knowledge transfer. Here, the exploration aspect is vital as it enables the delving of new knowledge through personal interactions, facilitating a deeper understanding and generation of new ideas (Luo, Lui, Liu & Zhang, 2016). This strategy differs from codification, as it values individual knowledge and expertise over universal access to standardized knowledge, recognizing the benefits that diversity in knowledge possession brings to an organization (Jonsson, 2012). The emphasis on exploration through personification supports a dynamic and innovative environment, where informal knowledge exchanges can lead to new insights and solutions.

When examining the strategies of codification and personification, we gain important insights into the ways knowledge is explored and exploited within organizations. Assessing the effectiveness of these approaches helps us to understand knowledge management approaches and ensure that knowledge sharing is efficient across different levels and domains (Hall, 2006; Jonsson, 2012). Building on this foundation, the following chapter delves deeper into the aspects of knowledge sharing and knowledge transfer. This discussion not only extends our understanding of knowledge management but also aligns with the broader understanding of knowledge acquisition.

2.2.3 Knowledge Transfer and Knowledge Sharing

Understanding the dynamics of knowledge within organizations involves recognizing how strategic, codified, or personalized knowledge is transferred across different divisions. In a global context, organizations must navigate the dual challenges of exploring new knowledge and exploiting existing knowledge to maintain competitiveness. This is facilitated by robust network structures and strong relationships that enhance knowledge sharing and exploitation across various locales, thereby improving organizational learning and overall performance (Ferreira et al., 2018). Modern organizations frequently operate on a global scale to capitalize on diverse skill sets, labor costs, and market opportunities in various regions (Argote, Ingram, Levine, & Moreland, 2000). Additionally, network structures and strong relationships help

ensure that knowledge is effectively shared across different parts of an organization, improving learning and overall performance (Argote & Miron-Spektor, 2011). Further, Argote et al. (2000) define knowledge transfer as the process of sharing experiences between different units, such as individuals, groups, or departments, enabling the organization to acquire knowledge not only from their own direct experiences, but also indirectly from the experiences of other organizations.

Recent research emphasizes the importance of structural elements that facilitate knowledge flow in flat organizations, where social networks and direct interactions are crucial for effective knowledge transfer. This includes both exploration, where new ideas and techniques are sought and acquired, and exploitation, where existing knowledge is utilized to enhance efficiency and performance (Reitzig, 2022; Darr, Argote, & Epple, 1995). Effective knowledge sharing, which involves exchanging skills and leveraging insights from past experiences for practical applications, plays a vital role in this context, enhancing both organizational and individual growth (Serenko & Bontis, 2016; Wiewiora, Trigunarsyah, Murphy & Coffey, 2013). This approach not only facilitates the spread of knowledge but ensures it is actively utilized across the organization, supporting both innovative practices and the refinement of existing capabilities. Yang and Wu (2008) argue that one of the primary objectives of knowledge management initiatives is to enhance or facilitate knowledge sharing within organizations, ensuring that organizational members can effectively utilize and spread their knowledge for organizational and individual growth. However, if knowledge sharing within an organization is not efficient, it is likely to diminish over time (Yang & Wu, 2008).

Although the terms knowledge transfer and knowledge sharing are often used in the same contexts, they represent different aspects of knowledge dynamics within organizations. While knowledge transfer involves applying knowledge, knowledge sharing focuses on exchanging knowledge within an organization. This exchange is critical for aligning organizational objectives, fostering shared responsibility, and promoting collaboration through decentralized decision-making processes (McNeish & Mann, 2010). Trust is integral to knowledge sharing, acting both as a facilitator and as a result of successful interactions. It strengthens group performance by enhancing individuals' willingness to share and receive valuable knowledge, thereby facilitating the integration of new insights and optimizing organizational dynamics (Nelson & Cooprider, 1996; McNeish & Mann, 2010). This complex interplay of trust,

exploration, and exploitation underscores the essential role of knowledge transfer and sharing in facilitating individuals acquisition of knowledge within an organization.

2.2.4 Knowledge Management in Flat Structures

Knowledge Management is crucial for organizations that rely heavily on expertise, such as consulting firms, where sharing and utilizing specialist human capital effectively determines success (Gupta, Iyer, & Aronson, 2000). As knowledge management becomes more important, the focus on sharing tacit knowledge, which includes experiences, skills, and practical know-how among individuals has grown (Taylor, 2007; Asrar-ul-Haq & Anwar, 2016). Addressing these challenges requires not just technological solutions, but a structure that supports open communication and adaptive leadership (Gupta et al., 2000).

In organizations that use a flat or decentralized organizational structure, the setup usually facilitates better knowledge management. Such structures enhance the exploration of new ideas and the exploitation of existing knowledge by reducing barriers to communication, increasing opportunities for personal growth, and fostering creativity (Mahmoudsalehi et al., 2012). For companies that prefer a decentralized approach, it is crucial to go beyond physical boundaries and foster a culture based on trust and a strong identity, enabling more accessible information sharing without strict formalities (Wang & Ahmed, 2003). Wang and Ahmed (2003) further emphasize that managing knowledge effectively should focus on allowing knowledge to flow freely, not merely storing it. The organizational design should therefore support the smooth movement of knowledge, facilitated by informal networks that encourage the sharing of tacit knowledge.

Moreover, Wang and Ahmed (2003) suggest that organizations should be flexible in their approach to knowledge management, allowing their structure to adapt to meet changing needs. This flexibility is crucial as it helps the organization quickly respond to new challenges and opportunities. Such adaptability often depends on informal relationships within the organization, which can create an environment that supports ongoing learning and the active sharing of knowledge (Wang & Ahmed, 2003). This approach not only improves knowledge management in flat organizations but also ensures that knowledge is actively used and enhanced through regular interactions within the company. This is particularly effective in flat structures, where the lack of hierarchical barriers promotes direct communication and collaboration across all levels of an organization (Alvesson, 1989).

Studying knowledge management within flat organizational structures reveals that such setups are particularly favorable for efficient knowledge sharing and management. Flat structures promote open communication and collaborative environments that are essential for both harnessing and distributing knowledge effectively (Alvesson, 1989). The structure allows for the exploration of new ideas and the thorough exploitation of existing knowledge, providing a more flexible working environment and facilitates knowledge sharing across the organization. However, management is required to avoid knowledge silos, ensuring that knowledge flows freely and is continuously enriched by active participation across all levels of the organization (Wang & Ahmed, 2003). Understanding knowledge management and how it works in flat organizational structures is crucial for understanding the conditions under which specialists acquire knowledge outside their domain.

2.3 Organizational Structure

2.3.1 Flat Organizational Structure

The concept of the division of labor involves distributing different tasks to various individuals within an organization to increase efficiency and productivity. This principle allows individuals to specialize in specific tasks, enhancing their skills and speed in execution, thereby boosting overall organizational effectiveness (Smith & Snow, 1976). Most modern organizational structures are fundamentally based on some level of division of labor. In decentralized organizations, the effective distribution of tasks depends on employees' willingness to make decisions and initiate actions autonomously, given the fewer number of managers, as Alexy (2022) argues. Alvesson (1989) views a flat organizational structure as a system that promotes open communication, easy accessibility, informality, and a strong sense of community and belonging among its members. Claver-Cortés, Zaragoza-Sáez, and Pertusa-Ortega (2007) argue that the organizational structure significantly influences how information flows and how people interact within the organization. For modern organizations aiming to boost innovation and adaptability, adopting flexible structures capable of embracing change is crucial. This flexibility often involves a high degree of decentralization to enable rapid decision-making and effective use of expertise (Claver-Cortés et al., 2007).

Reitzig (2022) points out the efficiency and cost benefits of a flat organizational structure over traditional hierarchical structures. A flat structure means fewer levels of management, leading to shorter decision paths and faster decision-making. This decentralized

decision-making process, coupled with a shared managerial responsibility, helps streamline operations such as evaluating, information collecting, and action delegating, thereby benefiting the organization (Reitzig, 2022). However, involving more employees in decision-making can make sharing information more time-consuming. The additional time required to exchange information across various parts of the organization might reduce the overall efficiency of a flat structure. Therefore, it is crucial to create teams of an appropriate size with knowledgeable members to ensure a balance between decision quality and the cost of exchanging information (Reitzig, 2022). By decentralizing management and promoting a division of labor, these structures not only enhance productivity but also empower employees with greater autonomy and quicker decision-making, acting as a facilitator for organizations that emphasize the exploration and exploitation of new knowledge.

2.3.2 Organizational Search

Organizational learning involves converting previous task experience into knowledge, shaping the organization, and impacting future performance (Argote et al., 2020). The process of organizational learning comprises previously studied aspects such as knowledge creation, knowledge retention, and knowledge transfer. However, Argote et al. (2020) introduce an additional aspect to the process: search. Organizational search is described as seeking solutions for current or anticipated problems, which can improve existing routines or capabilities and lead to the development of new ones (Cyert & March, 2015). The learning processes in organizational learning are interconnected, with knowledge creation being central. Different divisions in organizations can create knowledge from their own experiences or from others'. Search processes, both internal and external, are essential for exploring alternatives and their outcomes, integrated with knowledge creation and transfer (Argote et al., 2020). Organizational search is categorized based on its contribution to developing existing knowledge or developing new knowledge.

Building upon March's (1991) concept of exploitation and exploration in organizational learning, Rosenkopf and Nerkar (2001) focuses on exploration, suggesting that search efforts within an organization or technological boundary can also extend across boundaries. This leads to four types of search: local, internal boundary spanning, external boundary spanning, and radical search. Search activities, whether conducted internally or externally, aim to uncover alternatives and their potential outcomes (Argote et al., 2020). This highlights the crucial role of versatile organizational search in promoting organizational learning, serving as

a key element in acquiring new knowledge and fostering ongoing adaptation and exploration of knowledge, both internally and externally.

2.3.3 Specialist Human Capital

In organizational learning, organizations often struggle with the value of specialist versus generalist human capital (Kang & Snell, 2009). Specialists possess deep, localized knowledge within specific domains, while generalists are multi-skilled with broader capabilities applicable across various situations. This dynamic shapes learning outcomes, as individuals with broad knowledge across various domains may approach the search for new knowledge differently than those who possess deep expertise in a single area, impacting the diversity of current knowledge accessible within the organization (Taylor & Greeve, 2006).

Generalist human capital, being less rooted in a specific viewpoint and spanning multiple knowledge domains, is less likely to have functional bias. In decision-making situations, generalists can see problems and situations from different perspectives because they have diverse mental models and encounter less internal disagreement (Kang & Snell, 2009). As a result, generalist human capital not only offers a diverse range of readily available knowledge for different tasks but also the flexibility to explore, understand, integrate, and apply new knowledge in the future (Kang & Snell, 2009). In contrast, specialist human capital, characterized by domain-specific knowledge, excels in acquiring and integrating new, in-depth knowledge within a narrow scope (Brown & Duguid, 1991). This specialization is closely linked to exploitative learning. However, Dougherty (1992) argues that specialized human capital may also come with a "functional bias", limiting individuals' desire and ability to exchange and integrate new knowledge outside their specialized area. Therefore, specialist human capital tends to prioritize exploitation over exploration (Dougherty, 1992).

Building on this, Argote et al. (2020) suggest that further investigation into organizational structures could improve our understanding of how organizations search for knowledge. Specifically, future research might determine whether organizations lean towards specialization or adopt a more generalist approach, and what motivates respective search behaviors. Argote et al. (2020) propose exploring why specialists might prefer local searches, possibly due to factors such as motivation, limited capabilities, or a lack of opportunities. However, this thesis will concentrate on specialists within a flat organizational structure,

examining how they acquire knowledge outside their domain. This focus leads to our research question:

How do specialists within flat organizations acquire knowledge outside their domain of expertise?

2.4 Chapter Summary

The theoretical framework aims to illustrate the connection of literature, demonstrating how it both influences and is influenced by one another. Instead of just talking about these concepts broadly, we aim to dive into how they work together and affect how organizations learn. We look at different types of knowledge and how they are managed, utilizing the SECI model to illustrate the creation of knowledge and the 4I-framework to deepen our understanding of the fundamentals of organizational learning. We also explore how knowledge management works in flat structures, exploring how organizations search for new knowledge and how specialists and generalists human capital play different roles in this structure. By looking at these connections, we get a better understanding of how organizations manage knowledge and why it matters for specialist knowledge acquisition.

3. Methodology

This chapter details the methodology used in our research, highlighting its role within our study on knowledge acquisition among specialists in flat organizational structures. We begin by discussing the philosophical grounding, focusing on the ontological and epistemological perspectives that shape our interpretive approach. This foundation aligns with our aim to understand specialists' subjective experiences. We then outline our research approach, emphasizing our abductive approach and qualitative method, which are well-suited to exploring nuanced insights and constructing theory from empirical findings. Following this, we detail our data collection process, including the selection of TechCo as our case study and its relevance to our research question. Next, we describe the participant selection process, ensuring all relevant specialists were included. We explain the semi-structured interview process and the development of the interview guide for rich data collection. The chapter then covers our data analysis techniques, involving sorting, reducing, and arguing to identify patterns and themes. Finally, we reflect on reflexivity, ethical considerations and issues of credibility, ensuring the accuracy and validity of our study and reinforcing the trustworthiness of our findings.

3.1 Philosophical Grounding

Berryman (2019) describes ontology and epistemology as philosophical principles that shape researchers' worldview and form their understanding of truth, reality, and existence. Ontology focuses on the study of being and what can exist (Berryman, 2019). In our research, we align with a constructionist ontological perspective, which examines how social actors, like our respondents, perceive and shape phenomena. This position acknowledges that individuals actively construct meaning. Additionally, epistemology addresses the nature of knowledge, how it is acquired, and who possesses it (Berryman, 2019). Here, we adopt an interpretivist epistemology because it recognizes that reality and knowledge are continually shaped through social interactions. Both ontological and epistemological considerations influence our research approach, therefore we prioritize the interpretive tradition, which emphasizes subjective interpretations and meaning-making, as the guiding framework for our study.

The study seeks to examine the factors that influence specialists' ability to acquire knowledge outside their domain and how it shapes their expertise development within flat organizational structures. We aim to delve into the subjective interpretations surrounding the topic, considering the ambiguity surrounding knowledge management and development of specialists within flat organizational structures. Therefore, our study will adopt an interpretivist approach, highlighting the importance of subjective meanings in shaping reality (Prasad, 2017). As we hoped to gain insight into the specialists' processes of acquiring knowledge outside their domain within flat organizational structures, we were aware that their meanings might change when the respondents shift to another social situation, such as another department. By using this approach, we hope to gain an understanding and, in turn, get answers to our research question.

Prasad (2017) highlights that the interpretive tradition emphasizes human interpretation as the foundation for understanding the social world. In our research, we specifically advocate for the application of symbolic interactionism in the interpretive tradition as it relates to the topics of individual sense-making and personal development. We initiated each interview with questions about the organizational structure, knowledge management, specialist knowledge acquisition and perceptions of the organization. These questions generate subjective responses shaped by interviewees' sensemaking and meaning creation, aligning with the principles of interpretive traditions. Prasad (2017) argues that in qualitative studies, a research tradition covers a variety of complex presumptions, worldviews, orientations, methods, and practices.

When exploring the dynamics of knowledge acquisition outside specialists' domain of expertise, it is important to establish the underlying principles that make the research question both viable and essential for academic research. The process of knowledge acquisition is fundamental to the evolution of skills and competencies in today's rapidly changing professional landscapes and is traditionally viewed through the lens of processes such as the absorption, integration, and application of new information. However, we believe that in professional settings, these processes are not only intrinsic, but influenced by external factors such as organizational structure, interactions with colleagues, and personal initiative. Therefore, studying these dynamics offers insights into how professionals adapt to and develop in environments that are outside their primary areas of expertise. The question of

how specialists acquire knowledge outside their domains is particularly relevant in fields where technological advancements are constant such as our case study of TechCo.

3.2 Research Approach

In this section, we will explain our abductive approach for the research. We will then justify the relevance of using a qualitative research method in the study. This study adopts an interpretive approach and in line with this, a qualitative design was selected to capture the factors that influence specialists' ability to acquire knowledge outside their domain and how it shapes their expertise development within flat organizational structures. As highlighted by Rennstam and Wästerfors (2018), qualitative methods prioritize interpretation and meaning over statistical causal relationships.

3.2.1 Abductive Approach

As Bell, Harley and Bryman (2022) explains, research can follow either deductive or inductive approaches. In deductive research, the researcher formulates a hypothesis or research question based on existing knowledge of the topic. Conversely, inductive research involves the emergence of theory from the research process itself (Bell et al., 2022). Recognizing that these two approaches are not the most suitable for our research, a third method, known as the abductive approach, has gained popularity. Alvesson and Kärreman (2007) describe the abductive approach as involving a critical examination and revision of established notions and theories. This approach unfolds in three steps: first, reviewing existing literature or theory on a topic; next, identifying gaps or surprising phenomena in the literature or theory; and finally, constructing a new theory in response to these observations (Alvesson & Kärreman, 2007).

In our research, an abductive approach was used, which focuses on combining deductive and inductive research approaches. We started with the theoretical framework that guided the collection of empirical data. The collected data then led to a review and refinement of the framework, incorporating new insights and got rid of aspects that did not significantly contribute to the research. This involves an interplay between theory and empirical material aimed at explaining patterns in the data using the theoretical framework (Söderbom & Ulvenblad, 2016).

3.2.2 Qualitative Research

A qualitative approach was selected for this study because it is ideally suited to examine how specialists in flat organizational structures acquire knowledge beyond their areas of expertise. Qualitative methods allow for an in-depth analysis of individuals' experiences and the social dynamics that influence knowledge acquisition (Yin, 2015). This approach is particularly effective for understanding complex social phenomena and contexts where numerical data alone is insufficient (Rennstam & Wästerfors, 2018). By seeking to comprehend the meanings behind phenomena rather than merely quantifying their occurrences, qualitative research aligns with our aim to explore how specialists navigate and expand their expertise in knowledge-intensive environments (Rennstam & Wästerfors, 2018).

In our study, we focus on identifying gaps and problems in existing literature regarding knowledge acquisition in flat organizations (Creswell, 2015). This qualitative exploration enables us to enhance our understanding by examining how specialists adapt and integrate new knowledge in contexts different from their expertise (Rennstam & Wästerfors, 2018). By engaging with experts in the field, we aim to gain deeper insights into the human behavior and collective actions that shape knowledge acquisition processes. Therefore, qualitative research is essential for investigating the factors that influence specialists' ability to acquire knowledge beyond their domain and how this shapes their expertise development within flat organizational structures. This approach helps us address our central research question about how specialists within flat organizations acquire knowledge outside their domain of expertise.

3.2.3 Single-Case Study

According to Bell et al. (2022), a single case study paired with in-depth interviews is considered the optimal research strategy for conducting a nuanced analysis. Therefore, we have adopted this approach to examine how specialists in flat organizational structures acquire knowledge outside their domains. This approach is crucial for providing a comprehensive and detailed description of specialists' perceptions of their knowledge acquisition process, which is essential for effectively addressing the study's purpose. By delving into specialists' perspectives, we aim to gain a deeper understanding of their viewpoints on knowledge acquisition in a flat organizational context. It is essential to allow interviewees the freedom to express themselves and share what they find meaningful and relevant to the subject matter.

Conducting in-depth interviews within a single case study using a qualitative approach provides strong support for addressing our research question and enabling a nuanced analysis (Rennstam & Wästerfors, 2018). Case studies are particularly relevant when researchers seek answers to descriptive questions like “what” or explanatory ones like “how” or “why” certain occurrences take place (Yin, 2015). Our aim was to create a comprehensive understanding of the phenomenon by gathering insights and experiences from multiple participants. To achieve this, we conducted multiple semi-structured interviews with individuals, allowing each participant to express their unique perspectives and opinions about the subject matter. This strategy enables us to explore the factors that influence specialists’ ability to acquire knowledge outside their domain and how it shapes their expertise development within flat organizational structures, thereby addressing our research question about specialists knowledge acquisition within flat organizations.

3.3 Data Collection

As Söderbom & Ulvenblad (2016) explain, the data collection section should provide detailed information about the methods used to collect empirical data, including the selection of the organization, participants, and data collection procedures. In this study, we aimed to examine how specialists within flat organizational structures acquire knowledge outside their domains. Therefore, empirical data were gathered through semi-structured interviews, chosen for their effectiveness in exploring individual perspectives in depth. The organization selected for this study, referred to as “TechCo” to ensure confidentiality, specializes in providing IT solutions through a team of 10 highly skilled software engineers. TechCo operates under a flat organizational structure, where engineers work independently on their projects but collectively share responsibility for client deliverables. This setting is ideal for our research as it embodies the characteristics necessary to study the dynamics of specialist knowledge acquisition within flat organizations.

TechCo employs approximately 30 individuals, with a core team of 10 software engineers who possess extensive expertise in their specific domains. A unique feature of TechCo is the depth of specialized knowledge each engineer holds. This specialization is so distinct that if one engineer is unavailable, the others cannot easily compensate for their absence. This not only highlights the individual value within the team but also underscores potential exposure in knowledge management. To comprehensively explore these dynamics, we conducted ten

in-depth interviews via Google Meet with all specialists who are directly relevant to the research question. These ten specialists were carefully selected as they represent the core group within TechCo, whose work and expertise are most critical to understanding the phenomenon under investigation. This sample is significant as it comprises the entire population of specialists within the organization which are critical to our study. The following sections will outline how participants were identified, describe the interview process, and discuss the development of the interview guide, ensuring that our data collection methods are tailored to address our research question.

3.3.1 Sampling Method

Our research objective aims to examine specialists in flat organizational structures, requiring a careful selection of participants to ensure meaningful and relevant data. Therefore, we strategically chose participants based on their specific knowledge and expertise relevant to our study's focus. We used purposive sampling, as advised by Yin (2015), which helps identify individuals with significant insights and experiences that are directly relevant to our study. This method ensures we choose participants who can offer detailed views on the unique challenges and dynamics within flat organizations. The participants interviewed at TechCo for our study are specialists in their respective areas, which enriches the data sampling and aligns directly with our objective to answer our research question.

We conducted interviews with a total of ten individuals, whose details are summarized in table 3.1 below, including their fictitious names, methods of interview, and durations. The interviewees consist of both men and women, reflecting a diverse range of experiences relevant to the study. Gender inclusion was natural as both genders possessed the required specialist expertise. Given the representation of both genders, there was no need for specific review regarding gender-related factors in the empirical material.

The interviewees had different lengths of employment at TechCo, ranging from 1 to 23 years, indicating diverse lengths of industry experience that could influence their perceptions of the organization. Alvehus (2013) recommends for strategic participant selection when specific experiences are required for a study. In our case, we aimed for diversity among respondents to involve various departmental experiences among specialists. Consequently, participants were selected based on their relevant experiences, as our study is aimed for specialists in a flat organization.

Table 3.1 Overview of Participants in Our Study (Fictitious Names)

Respondent	Collection	Duration
Clara	Google Meet	34 Minutes
Simon	Google Meet	35 Minutes
Jonathan	Google Meet	43 Minutes
Isabella	Google Meet	31 Minutes
Carl	Google Meet	48 Minutes
Linus	Google Meet	42 Minutes
Alex	Google Meet	39 Minutes
Peter	Google Meet	36 Minutes
Sophie	Google Meet	32 Minutes
Robert	Google Meet	44 Minutes

3.3.2 Semi-Structured Interviews

In the early stages of our research, we decided for semi-structured interviews to facilitate open and more informal discussions with each individual interviewee. Semi-structured interviews involve using a predetermined set of questions while also allowing for follow-up questions, ensuring thorough and detailed responses (Bryman, 2018). We developed a single interview guide comprising 10 questions to delve deeper into specialists' ability to acquire knowledge outside their domain in a flat organizational structure. While the interview guide was used in every interview, it also provided flexibility to ask additional questions based on the respondents' responses. This approach fostered open dialogue in line with the interpretive tradition and prevented us from only uncovering expected insights (Prasad, 2017).

The interviews ranged from 31 to 48 minutes in duration with an average of 42 minutes per interview, with all of them conducted online. We prioritized online interviews with TechCo to save time on traveling and scheduling days with the participants. Therefore, we allowed the participants to schedule the time with us online to better meet both parties' needs. Prior to each interview, respondents were asked for consent to record, with assurances of anonymity for both individuals and the company. With all interviews recorded, detailed transcripts were produced, facilitating thorough analysis of the empirical data. We conducted the interviews in both Swedish and English to accommodate the native language of the interviewees, ensuring accurate expression for all parties involved.

3.3.3 Interview Guide

The interview questions (See Appendix) were crafted with guidance from the theoretical framework, using its headings as reference points. These headings were transformed into interview questions, with additional follow-up questions added to further explore each topic. The interview questions aimed to explore various aspects, including the process of knowledge acquisition, the learning environment, flat organizational structure, and the development of specialist expertise. As previously discussed, the questions were designed to be semi-structured and open-ended. The initial question led respondents to introduce themselves, share their duration at the company, and whether they have always held the same role within the organization. This served the dual purpose of gaining insight into the respondents background and creating a comfortable atmosphere for the interview.

3.4 Data Analysis

Once the interviews were completed, they were transcribed from the recordings to initiate the coding process for the responses. This initial step is crucial in an abductive approach, as it allows for the identification of patterns and themes that emerge directly from the data. By systematically coding the responses, we could organize them into coherent themes, facilitating the ongoing process of moving between empirical data and theoretical insights, as described by Creswell (2015).

Sorting the empirical material into themes adds organization and consistency, spending time to review the material helps in identifying patterns and assessing relevance, argued by Rennstam and Wästerfors (2018). The next section we will outline our sorting strategy and describe the procedures involved. We initiated the organization of the empirical data for analysis, following Rennstam and Wästerfors' (2018) model of sorting, reducing, and arguing. This model provides a systematic approach to comprehending extensive datasets and formulating analytical concepts. Finally, we will explain how we interpret our empirical material using the excerpt-commentary unit model.

3.4.1 Sorting

As Rennstam & Wästerfors (2018) discuss, it is crucial to organize the data before beginning the analysis. Sorting, as outlined by Rennstam and Wästerfors (2018), involves bringing order to the initially chaotic nature of transcribed interviews. We categorized responses by

first carefully reading through the transcribed material and identifying patterns and recurrent themes among the respondents' comments. Once the interviews were completed, they were transcribed from the recordings to initiate the coding process. During this process, we systematically reviewed each transcript to identify significant and potentially relevant segments of data. Relevance was determined based on several criteria: the frequency of specific themes, the depth of insight provided by the responses, and the direct connection of the responses to our research question about how specialists within flat organizations acquire knowledge outside their domains.

For instance, during the initial coding phase, we noted frequent mentions of "autonomy" and "self-structured learning" as critical factors influencing knowledge acquisition. These recurring themes indicated their potential relevance to our study's aim. Additionally, we looked for responses that provided detailed insights or unique perspectives, such as descriptions of specific challenges or strategies employed by the specialists in navigating their knowledge acquisition processes. As we sorted through the data, we organized these codes into broader themes and sub-themes. For example, the theme of "Knowledge Exploration" emerged from various codes related to self-directed learning, time constraints, and survival-based learning. We recognized patterns based on criteria such as the context in which themes were mentioned, their implications for understanding knowledge acquisition, and their frequency across different interviews.

When faced with numerous relevant segments, we identified patterns by assembling similar responses and examining their differences and similarities. For example, "Self-Structured Freedom" and "The Constraints of Time" were identified as distinct sub-themes under "Knowledge Exploration" because they represented different aspects of how specialists manage their learning, one focusing on autonomy and trust, and the other on time management and pressures for emerging projects. To ensure these patterns were distinct, we compared responses across participants to verify consistency and coherence within each theme. For instance, "Self-Structured Freedom" was characterized by consistent mentions of autonomy and trust, while "The Constraints of Time" consistently highlighted time management issues and the need for balancing immediate work demands with personal development.

By using these criteria and examples, we were able to systematically arrange and understand individual responses, enabling a thorough exploration of specific scenarios while simplifying the analysis procedure. This method allowed us to construct a coherent narrative that accurately reflects the complexities of knowledge acquisition within flat organizational structures. This methodical approach aligns with the concept of analytical induction as described by Rennstam & Wästerfors (2018), where understanding of a phenomenon evolves from broad observations to more detailed and complex insights.

3.4.2 Reducing

After completing the initial sorting, our database had grown overly large, comprising 32 initial codes. To make this material more manageable, we began a reduction process, using both categorical and illustrative reduction methods as outlined by Rennstam & Wästerfors (2018). In the categorical reduction phase, we prioritized themes based on their frequency and relevance to our research objective. For example, the code "autonomy" appeared 54 times across different interviews, indicating its central role in understanding knowledge acquisition in flat organizations. We focused on codes that were most commonly repeated across the data set, as these repetitions suggested their importance in understanding the underlying patterns and themes. This allowed us to reduce our extensive list of 32 codes into approximately 10 core codes that best represented the key insights of our research. We initiated the abductive approach during the reduction phase by interacting our theoretical framework with the empirical data. For instance, theories on knowledge management and organizational learning suggested that autonomy and trust are crucial in flat structures. We compared these theoretical ideas with our codes related to "self-structured freedom," "time constraints," and "survival-based learning" to see how well they aligned. This interaction helped refine our codes and provide new insights that theory alone had not addressed.

We further applied the illustrative reduction approach by identifying quotes that highlighted key processes or characteristics within the selected categories as discussed by Rennstam & Wästerfors (2018). For example, under the theme of "Self-Structured Freedom", a quote from Alex, "I structure my days according to my own judgment, planning out each week thoroughly. I pretty much operate independently within the company", was chosen to illustrate how autonomy is practiced at TechCo. This method helped us pinpoint and retain key points in respondents' answers, ensuring our analysis was both rich and focused. After the reduction process, we reduced our initial 32 codes down to approximately 10 core codes.

These codes were then organized into two primary themes: “Knowledge Exploration” and “Knowledge Exploitation”, each with relevant sub-themes such as “Self-Structured Freedom” and “The Constraints of Time”. These themes summarize the main findings of our research, offering new insights into how specialists in flat organizations navigate knowledge acquisition. By detailing the steps of our reduction process and the interaction between theory and empirical data, we aimed to provide a transparent account of how we arrived at our final themes and codes. This method not only streamlined our analysis but also ensured that the resulting themes were both theoretically informed and empirically grounded.

3.4.3 Arguing

Once the sorting and reduction processes was completed, the next important step, as discussed by Rennstam and Wästerfors (2018), is arguing. The point of arguing is to show how your evidence fits with what other people have already studied, if it adds something new, or if it is different. Therefore, the empirical data should tell a message about the subject that helps us understand or explain the phenomenon (Rennstam & Wästerfors, 2018). Furthermore, they propose that theorizing should be considered a form of argumentation. Rennstam & Wästerfors, (2018) suggests that developing a theory from empirical material involves making a compelling case for the importance of the findings. The purpose of this argumentation is to make clear how the empirical findings relate to existing literature, identify gaps that the research has filled, and explain how it either separates from or contributes to that literature.

Additionally, in the upcoming empirical section where we analyze our discoveries, we use the excerpt-commentary unit model. This model involves several stages: firstly, we explain a key analytical point; next, we discuss the specific empirical excerpts we will use, known as an orientation; then, we introduce the empirical excerpt through a quote from the respondents, followed by our analytical commentary (Rennstam & Wästerfors, 2018). As Rennstam and Wästerfors (2018) explain, this method helps us understand the material better and make clear arguments. This way, it allowed us to select key insights from the interviews and understand them well.

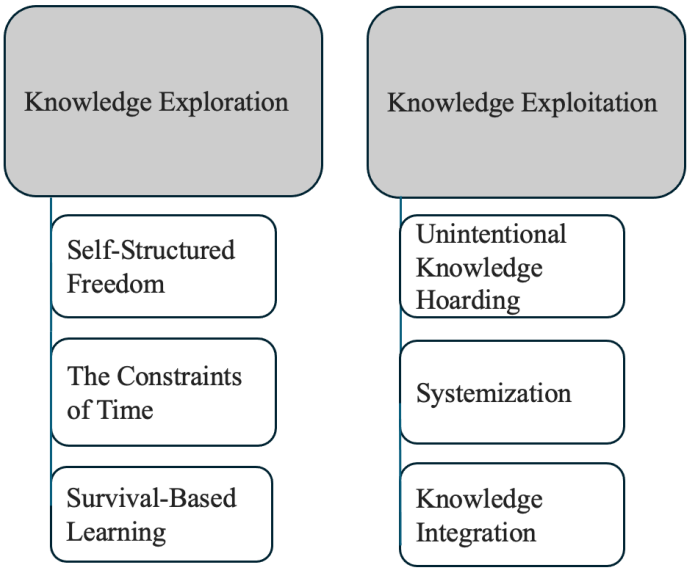

Figure 3.1 Findings Overview

3.5 Reflexivity, Ethical Considerations and Credibility

Throughout our research process, we have made a collective effort to maintain a reflexive mindset, conscious of the ontological and epistemological foundations that shape our study. According to Bell et al. (2022), maintaining reflexivity involves researchers stepping back from the center of the narrative to allow other voices to emerge more prominently. Our research embraced a constructionist ontological stand, viewing participants not merely as data sources but as co-creators who shape our research by interpreting and giving meaning to the research topic. Bell et al. (2022) describe deconstructive reflexivity as the process where researchers challenge their own expectations and accept the existence of multiple valid interpretations of the topic. This notion aligns closely with interpretive epistemology, which focuses on understanding individuals' behaviors and the meanings they attach to them. Influenced by our respondents' perspectives, our research progressed into new and fascinating topics previously unexplored in our theoretical framework. This reflexive approach allowed us to deviate from our original list of questions and ask follow-up questions that were more aligned with the research theme. This method is reflective and shows an abductive approach to research, where findings develop through an ongoing process of engaging with participants and adjusting to their insights.

Bryman (2018) emphasizes that research must adhere to certain ethical standards. Firstly, there is the information requirement, which means researchers must inform participants about the study's purpose and ensure their participation is voluntary. In this study, when we contacted our respondents, we informed them about the study's purpose. Additionally, at the beginning of each interview, we repeated the purpose and emphasized that participation was voluntary. Secondly, there is the consent requirement, where participants decide whether to take part. The respondents were contacted for permission to participate and to record interviews, which was granted. Thirdly, there is the confidentiality and anonymity requirement to protect participants' personal data. This study treated this requirement with the highest confidentiality, ensuring unauthorized access was prevented. Additionally, participants were informed about anonymity, which we ensured for both the company and the respondents, ensuring that their participation in the study remains confidential. Finally, there is the utilization requirement, ensuring data collected is only used for research purposes and accessible only to the researchers in the study.

Fully assessing the credibility of the study is crucial. Contrary to the misconception that quantitative research is superior for drawing conclusions and generating new knowledge, we argue that case studies offer a deeper understanding and potential for scientific innovation in the social sciences. Furthermore, Prasad (2017) emphasizes the importance of avoiding oversimplification of qualitative research due to its complex nature. Therefore, the findings of this study does not aim to showcase various companies and organizational structures, but rather to identify theoretical insights applicable to organizations with specialist human capital in flat organizational structures.

3.6 Chapter Summary

In this chapter, we have outlined the philosophical grounding, research approach, and methodology of our study on knowledge acquisition among specialists in flat organizational structures. We adopt a constructionist ontological perspective and an interpretivist epistemology, recognizing that reality and knowledge are shaped through social interactions. This guides our focus on subjective interpretations and meaning-making. We use an abductive approach, starting with a theoretical framework and refining it based on empirical data. A qualitative method was chosen to examine how specialists acquire and integrate new

knowledge in flat organizational structures. Our single case study with TechCo, a tech consulting firm with 30 employees, provided a rich environment for our research. We conducted ten in-depth semi-structured interviews via Google Meet to gather comprehensive insights. Data analysis involved sorting, reducing, and arguing. We reduced 32 initial codes to 10 core codes, aligning empirical data with theoretical frameworks. Maintaining reflexivity and adhering to ethical standards, this chapter underscores the ongoing process of theory development to understand knowledge acquisition in flat organizational structures.

4. Empirical Findings

In this chapter, we present the empirical findings of our research, which are based on ten interviews conducted with specialists from TechCo. The aim of these interviews was to collect data to address the research question: *How do specialists within flat organizations acquire knowledge outside their domain of expertise?* Responses from the interviews were coded and grouped into two primary themes, which are: Knowledge Exploration and Knowledge Exploitation. Each theme consists of various sub-themes. We will provide detailed explanations of the sub-themes under each main theme. Moreover, in this chapter, we deal with processes of knowledge exploration (4.1) and knowledge exploitation (4.2) within organizations. Rather than exploration which implies freedom from productive demands, we find that TechCo's emphasis on self-directed learning, coupled with the absence of formal educational support and structured learning opportunities, fosters a survival-based learning approach where specialists prioritize immediate tasks over exploring new knowledge. Rather than exploitation which implies systemization of new knowledge in organization practices, we find a complex interplay of knowledge sharing and unintentional knowledge hoarding. The absence of a structured system to capture and redistribute knowledge significantly influences how knowledge is exploited across the organization.

4.1 Knowledge Exploration

The first theme delves into the complexities of exploring new knowledge as a specialist within a flat organization. The flat structure fosters an environment where specialists are not only encouraged but expected to take ownership of their roles and expand their expertise independently. However, this freedom comes with its own set of challenges, particularly in balancing the inherent time constraints of a dynamic work setting with the need for continuous professional development. The text delves into how TechCo's flat organizational structure, while empowering specialists to explore knowledge, also creates a survival-based learning approach where immediate needs often overshadow long-term learning. This sets the stage for a deeper exploration of how autonomous freedom, when coupled with limited time, shapes the ways in which specialists acquire and apply new knowledge within the organization.

4.1.1 Self-Structured Freedom

At TechCo, trust and autonomy are foundational elements of the organizational structure. This is highlighted by TechCo's emphasis on the flat hierarchy, underscoring a significantly more decentralized and trust-based structure. The findings show that a considerable amount of faith is put on the capabilities of specialists, empowering them to take full ownership of their responsibilities and learning. The level of autonomy granted is intended to create a dynamic work setting where the specialists are more aligned with their roles, engaged in their output, and autonomously involved in the acquisition and application of new knowledge.

> *"I have no desire to control everything. This perhaps comes back to trust; the ability to run a flat organization because you trust your staff"* (Carl)

The quote underscores TechCo's trust-based and decentralized structure that emphasizes employee autonomy and empowerment over strict supervision. By explicitly renouncing the need for control, the respondent highlights how trust and autonomy are not only organizational choices, but are central in TechCo's structure. This approach fosters an environment where employees feel empowered to explore new knowledge without fear of micromanagement, emphasizing TechCos' commitment to trust and autonomy. The findings further imply that control does not play a role in the exploration of new knowledge for the specialists, indicating that TechCo's structure relies entirely on trusting its employees to explore knowledge acquisition independently.

> *"I structure my days according to my own judgment, planning out each week thoroughly. I pretty much operate independently within the company"* (Alex)

The method of thorough weekly planning based on the individual's own judgment highlights a fundamental aspect of trust within TechCo. While control is not a central aspect of the daily operations, it is more about providing a structured freedom to both complete duties and explore new knowledge. This structured freedom involves a self-guided discipline that requires the specialists to be proactive in their planning and consistent in their learning. Therefore, the findings show a balance between freedom and responsibility, illustrating that while TechCo depends on autonomy, it also expects a high level of self-discipline from its specialists.

> *"When recruiting new staff now, given our current size, we need extremely driven and competent individuals who can act very independently and drive things forward on their own"* (Jonathan)

The quote underscores TechCo's preference for highly self-driven and competent individuals who can operate autonomously within the organization. However, this emphasis on autonomy raises concerns among some specialists regarding the negative side of placing too much trust in autonomy. The findings present concerns about the lack of sufficient oversight or supervision, and that there is a lack of coordination, resulting in missed deadlines or incomplete tasks. In situations where specialists fail to fulfill their responsibilities, whether in terms of learning or work, critical aspects of operational duties or learning may be overlooked, resulting in organizational inefficiency.

> *"Each of us holds a piece of the puzzle, and if one is missing, you're not going to see people hurry up to find it. They'll just say, Well, there's a piece missing, so I can't finish the work or solve the puzzle"* (Alex)

This metaphor explains the challenges of specialists operating without sufficient oversight. When a piece is missing, the lack of initiative to find and fit this piece speaks to a broader issue, which is the lack of coordination and control. This scenario underscores the operational risks discussed previously, where the specialists do not extend their efforts beyond their roles, leading to fragmented processes and missed deadlines. This reveals a critical gap in organizational learning and development, as opportunities for collaborative problem-solving and knowledge sharing are overlooked, potentially withholding innovation and learning. According to the respondents, TechCo values trust and minimal control, but further findings suggest that too much emphasis on autonomous work leads to inefficiencies when not paired with mechanisms that encourage proactive collaboration and collective responsibility.

4.1.2 The Constraints of Time

At TechCo, specialists face the constant challenge of balancing the demands of their immediate job responsibilities with their professional development and knowledge exploration. This challenge is primarily due to the time constraints imposed by a fast-paced work environment and the autonomous nature of their roles, which does not easily allow for knowledge exploration during working hours. The respondents highlighted the autonomy in

their roles, due to their specialized expertise, leaves little room for self-study or further learning during working hours. As specialists, they are required to manage their tasks independently, which constrains their ability to engage in learning activities that could take place during these hours. This results in most specialists pursuing their personal development outside of regular working hours, as they find no other time available.

> *"Unfortunately, I don't really have the time needed to learn how to use a different platform. You will have to switch off a bit in order to make time for learning and acquiring new skills. This is indeed a challenge that I face on a daily basis, managing time as a challenge. You will have to sort of play with it and find a balance"* (Alex)

The quote reveals the significant challenge for specialists at TechCo, that there simply is not enough time for them to fully engage in learning new skills, even though they operate in a flatter hierarchical structure that promotes autonomy. The respondents mention having to "switch off a bit" from the regular tasks to make space for personal development, highlighting the crucial aspect that time is insufficient to explore new skills and knowledge within TechCo. This situation creates a constant tension as specialists must choose between meeting tight project deadlines and enhancing their own skills. Essentially, there is a balancing act where specialists must strategically allocate their limited time to both fulfill their immediate job responsibilities and pursue personal growth after hours. This balancing highlights how critical and challenging it is for specialists to integrate learning into their busy schedules effectively and explore new knowledge.

At TechCo, there is freedom to explore new knowledge as the flexible work environment empowers specialists to pursue learning opportunities. However, the practical reality is far more complex due to strict time constraints. The specialists at TechCo are encouraged to deepen their expertise and stay ahead of technological advancements in their respective fields. The findings suggest that the organization supports this growth by providing a work environment that values autonomy, allowing specialists to delve into areas of interest and expand their skills. However, the findings also suggest that the problem lies not in the lack of opportunities but in the insufficient time allocated for such explorations.

> *"I can work 600 hours instead of 800, allocating the remaining time for my new learning. However, I never do this because if I'm getting paid for 800 hours, I should*

> *work that for the company. This is my knowledge and this is what I'm working for, so why should I do this during my working hours? As an employee, I have the flexibility to work on whatever I want, unless it's very urgent work that needs to be delivered to the customer"* (Peter)

The quote further emphasizes that the day-to-day responsibilities at TechCo are intense and time-consuming, with every hour accounted for in the pursuit of meeting tight project deadlines. This intense focus on productivity and immediate outputs leaves little room for the sort of expansive thinking and experimentation that exploration requires. This underscores an expectation within TechCo that work performance and meeting customer demands take priority over individual learning and exploration of new knowledge. Therefore, the challenge is not just about managing time but also about reshaping organizational priorities and to genuinely support and encourage the exploration of knowledge without sacrificing the demands of current work.

The findings highlight a request for structured learning-time, as it reveals the recognition of the need for both informal and formal learning opportunities at TechCo. This suggests implementing formal learning or occasionally setting aside dedicated hours for professional development. This underscores a significant organizational challenge: while the existing structure promotes autonomy, it lacks structured time for ongoing specialist development and knowledge exploration to continually integrate new knowledge into TechCo.

> *"I have actually discussed with my boss that I would really like to have some more structured time for training. Whether it becomes a formal course or just a couple of hours per week dedicated to learning, it would be nice"* (Simon)

In this statement it is implied that exploring knowledge effectively requires not only the freedom to learn but also designated periods specifically for focused learning, free from routine work distractions. This structured time is crucial for engaging deeply with complex topics. Additionally, the respondent mentions that integrating these learning sessions into the daily operations, rather than leaving them to individual negotiation, would enhance their effectiveness and ensure a more consistent approach to professional development.

4.1.3 Survival-Based Learning

The core of the organization's ability to facilitate knowledge exploration for specialists lies in the interplay between trust-based autonomy and time constraints. While TechCo's flat structure promotes a sense of trust and empowers specialists to take charge of their learning, the freedom is bound by demanding time constraints that impact the depth of knowledge acquisition. According to the findings, TechCo encourages continuous self-development as an essential element of its operations, viewing ongoing learning as integral to the specialists roles and vital for preventing organizational stagnation. However, the absence of structured learning opportunities and the constant time pressures mean that specialists are often limited to acquiring just-in-time knowledge tailored to immediate tasks. This environment fosters a survival-based learning where specialists must navigate their professional growth within limited time-frames and without the guidance of a formal educational framework, restricting the exploration of broader innovative knowledge domains.

> *"If you neglect self-improvement and development, you're essentially setting the stage for organizational stagnation. It's similar to a doctor constantly performing surgeries without bothering to learn new techniques and methods"* (Carl)
> *"TechCo hasn't signed me up to educational programs and said, 'This is what you need to learn,' but rather, I've had to educate myself on my own initiative"* (Jonathan)

The first quote illustrates how neglecting self-improvement and development sets the stage for organizational stagnation. It highlights the critical need for continuous professional growth to prevent becoming outdated, a particular issue at TechCo, where the flat structure promotes autonomy but lacks structured learning opportunities. This is complemented by the second quote, implying that TechCo does not provide formal educational programs, underscoring the environment of self-directed learning that, while empowering, leaves specialists without systematic support for broader knowledge exploration. The findings reveal a challenging dynamic within TechCo as specialists have the freedom to control their learning but face significant constraints due to time pressures and the absence of formal guidance, leading to a survival-based learning focused on immediate tasks.

At TechCo, the flat organizational structure places significant emphasis on self-directed learning, where specialists are meant to take initiative in tailoring their educational pursuits to their roles and interests. The findings show that specialists utilize a variety of resources, such

as podcasts and online forums, to gather pieces of knowledge that act as tools for immediate application and problem-solving. According to the respondents, the lack of depth in some resources is not an issue, as they serve as small components of a broader knowledge base. The specialists engage in proactive learning, selectively using information to approach emerging challenges and utilizing various sources to fill potential knowledge gaps. This method further underscores a survival-based learning style that forces specialists to manage and expand their expertise based on their emergent tasks.

> *"It often involves someone talking about a topic for a limited time. So they don't have much time to delve deeply into it; it's more like a 'look how interesting this is, maybe you can explore and play with it'. So, from my perspective, it's very much about understanding that this is a puzzle piece I can use to solve the problem. It's a way of remembering over time"* (Jonathan)

The quote delves into the nuanced practice of self-directed learning at TechCo, illustrating how the organization's structure creates an environment where knowledge acquisition is both a necessity and an activity shaped by time constraints. Learning is described as a process where the information is often presented briefly, not allowing for deep exploration at the moment but rather serving as knowledge for further individual exploration. This method is seen as collecting "puzzle pieces", which implies that while bits of information may not immediately provide comprehensive knowledge, they can be individually retained and later integrated to solve specific problems or address emerging challenges. This learning style evolves around the specialists capacity to recognize the potential in various sources and to collect these insights, constructing a wider knowledge base over time. This process underscores a learning environment at TechCo where depth is not immediate, but is built over time through personal initiative and exploration of diverse sources of knowledge.

The initiative-based learning at TechCo lays the foundation for survival-based learning. Since specialists proactively need to engage in self-directed activities to manage and expand their expertise, they have to continuously identify and explore learning opportunities that address immediate needs to solve emerging and ad-hoc problems. This acquisition of knowledge is driven by the individual initiative that specialists themselves must take to continuously develop and deliver. The findings reveal that specialists focus on acquiring knowledge mainly to address current challenges, overlooking the need for long term learning.

> *"We don't sit in a group and collaborate in that way; instead, it's more like 'this is something that needs to be addressed,' and when we've said that many times, it ends up on a priority list somewhere, and eventually, it will come to the point where we have to do something about it, then somebody has to take the initiative to understand the issue and deal with it."* (Robert)

This quote illustrates the decentralized and ad-hoc approach to problem-solving that TechCo operates under. It emphasizes that knowledge exploration at TechCo is driven by the identification of emerging issues which, once recognized as priorities, require proactive initiative from individuals to understand and resolve. This way of exploring knowledge fosters a survival-based learning environment, where the specialist initiative in continuous acquisition of knowledge is crucial for TechCo to meet project requirements and deadlines. Without the autonomous initiative of specialists to acquire crucial new knowledge, TechCo's development curve would stagnate, as the organization itself does not provide structured time for learning.

Furthermore, the findings show that the ad-hoc nature of knowledge exploration comes with challenges and limitations for survival-based learning. In survival-based learning, specialists often use rapid, on-the-spot methods to acquire necessary skills or knowledge due to time constraints or immediate demands. The findings show a wish for more time for self-study and professional development reflecting a desire for a deeper, more structured, and thoughtful learning process. Instead of hurriedly consuming knowledge to solve immediate problems, the respondents desire for a more deliberate and comprehensive approach to learning that allows for better understanding and retention. This underscores the tension between the need for quick solutions and the value of thorough, structured learning in professional and personal development.

> *"Sometimes I wish I had more time for self-study and professional development, rather than frantically watching a YouTube video at double speed just to learn how to do something"* (Simon)

The quote shows a frustration with the hurried nature of learning at TechCo and shows a desire for a more thorough and reflective approach, valuing depth and quality over speed. The

fast-paced consumption of knowledge, such as watching videos at double speed, leads to a more short-term understanding of the knowledge acquired. The respondent advocates for structured learning, which allows for better retention, meaningful engagement, and comprehensive skill development.

4.2 Knowledge Exploitation

The second theme explores how knowledge exploitation is greatly influenced by the practices of knowledge sharing and hoarding within the flat organizational structure. Despite TechCo's encouragement of openness and ease of access to expertise, this very structure causes significant challenges in the systematic use and application of knowledge. While TechCo fosters an environment for informal exchanges and direct interactions with decision-makers, the reality of these interactions often leads to selective sharing. This selective sharing, though it allows for individual empowerment and expert recognition, simultaneously results in knowledge being tightly held and not fully exploited across the organization. As a result, while the organization supports the free flow of knowledge, in practice, it struggles with the full exploitation of its knowledge assets, leading to a scenario where knowledge is unevenly distributed and utilized.

4.2.1 Unintentional Knowledge Hoarding

In the dynamics of knowledge exploitation at TechCo, the dual forces of knowledge sharing and knowledge hoarding shape the landscape of learning within the organization's flat structure. While TechCo's open structure promotes easy access to senior experts and fosters an environment rich in informal knowledge exchange, as exemplified by the respondents experiences of direct interactions with decision-makers, this very openness also presents challenges. The informal methods, such as the use of Slack channels for sharing insights, as described by the respondents, enables a structure where learning is voluntary and driven by personal interest. This method of sharing knowledge is appreciated by specialists for exploitation and learning. While the knowledge sharing positively impacts the specialists' informal learning, these practices lack structure, leading to issues in exploiting the knowledge and integrating it into the whole organization. These findings highlight a significant drawback, without structured follow-up or reinforcement, the spontaneous nature of learning at TechCo can result in knowledge being not taken advantage of or forgotten, unintentionally hoarded by individuals without benefiting the organization as a whole.

> *"It is very independent; there is a very flat hierarchy generally at TechCo. People don't think about others in different management roles, I think more about who possesses expertise and share my insights with them when i think it's needed"* (Simon)

The organization's design promotes an open exchange environment where expertise is more valued than hierarchical position, as emphasized by the respondents. This setup implies that interactions and influence are determined by who has access to expertise and who is recognized as an expert. However, this same flat structure also complicates the exploitation of knowledge. While it reduces barriers to accessing senior experts and encourages informal knowledge sharing, it simultaneously fosters conditions for unintentional knowledge hoarding. The findings show that specialists at TechCo unknowingly sit on critical knowledge, resulting in knowledge being concentrated in the hands of a few, rather than being disseminated across the organization. The lack of formal mechanisms to capture and redistribute knowledge means that much of the expertise shared informally could become siloed or even forgotten. The spontaneous and voluntary nature of learning at TechCo, though it adds to the flexibility of the organization, leads to inconsistencies in knowledge retention and exploitation, hindering collective learning and operational efficiency.

Additionally at TechCo, the use of digital collaboration tools such as Slack plays a role in the dynamics of knowledge sharing and exploitation of new knowledge. This approach is particularly evident in how Slack channels are utilized to circulate new knowledge among team members. As described by the respondents, these channels are intended to serve as platforms for voluntary knowledge sharing, where individuals can freely post and access knowledge relevant to their interests and professional needs. While this approach fosters an environment of open exchange and accessibility, it also underscores a significant challenge, the reliance on individual initiative for knowledge consumption. The optional nature of engagement in these Slack channels means that the exploitation and utilization of knowledge are inconsistent, relying heavily on personal motivation and interest. This is further emphasized by the respondents, to a situation where valuable insights and information are available but underutilized, as they are only accessed and applied by a self-selecting group of specialists who choose to engage actively. Moreover, this decentralized and voluntary approach can encourage a form of knowledge hoarding, where specialists share knowledge selectively based on their perceptions of what is beneficial for the organization's interests. Consequently, while the platform is available for open sharing, the actual practice shows that

critical knowledge remains in silos, accessible only to those who are either aware of its existence or motivated enough to seek it out.

> *"We have a separate Slack channel where we can discuss various topics. For instance, if I come across something new and interesting, I might post a link there for others to explore. Whether they choose to open and learn from the link is entirely up to them. Similarly, if I find something relevant to our industry, I can share it in the channel and recommend it as a valuable resource. However, it's ultimately up to each of the other team members whether they want to engage with the content or not"* (Peter)

This system is intended to coordinate access to knowledge and encourage a culture of sharing. However, as the respondents point out, engagement in this system is entirely optional, leading to significant implications for how knowledge is exploited and utilized within the organization. This statement reveals both the strengths and limitations of TechCo's approach to knowledge exploitation. On one hand, this method allows for the spontaneous sharing of insights and resources, which can stimulate innovation and keep team members informed about relevant developments. On the other hand, the voluntary nature of engagement with the shared content proposes a critical challenge, which is inconsistency in knowledge exploitation, meaning that the shared knowledge is not necessarily absorbed or used.

The findings suggest that selective engagement can lead to significant gaps in knowledge among team members, where some may be well-informed and others might lack critical insights that could help in their tasks or decision-making processes. This optional engagement fosters a structure of unintentional knowledge hoarding rather than sharing. Since the uptake of information is based on individual initiative, those who are more proactive in accessing and using the shared knowledge are the only ones benefiting from the informal channels of knowledge. And while the shared information may positively impact the development of some specialists, the organization fails to effectively exploit this knowledge by not integrating it into the broader organizational knowledge base, making the informal knowledge sharing organizationally ineffective.

4.2.2 Systemization

The insufficient exploitation of knowledge within TechCo underscores the critical aspects of informal knowledge sharing within the organization. The respondents emphasize a fundamental issue, which is the inefficient approach to knowledge storing that hinders access and exploitation of valuable insights. This recognition highlights a critical issue, not only is the system for managing knowledge inefficient, but there is also a significant absence of usage among specialists for improving or systematizing these processes. Specialists frequently fail to recognize the direct benefits of a structured knowledge storing system, perhaps perceiving it as bureaucratic or overly time-consuming without immediate visible rewards. This leads to a cycle where knowledge remains disorganized, making it even harder to access and exploit knowledge effectively. The findings show that TechCo lacks a structure to turn individual expertise into collective knowledge, which reinforces the belief that organizing it would not be worthwhile.

> *"We have a system that is not great, and then we have a share point where I think there would be some knowledge, then we also have a one drive with files and stuff but it may not always be so structured"* (Simon)
>
> *"Then, of course, we'll get into some system eventually, but it hasn't really been what we've thrown ourselves into right now"* (Jonathan)

These quotes from the TechCo specialists show the inherent challenges faced by the organization in exploiting and systematizing knowledge. This situation at TechCo exemplifies a broader organizational challenge, where rapid innovation overtake the ability to effectively manage the knowledge that drives it, capturing the fragmented and ad-hoc nature of knowledge exploitation at TechCo. This setup not only makes it difficult to locate and access knowledge, but also suggests a lack of a consistent approach to manage knowledge exploitation systematically. The use of multiple platforms like SharePoint and OneDrive without a clear structure leads to significant inefficiencies, which reflects a certain procrastination or lack of urgency in addressing knowledge exploitation issues. The respondents implies a recognition of the need for a more structured system but highlights a delay in action, possibly due to the perceived bureaucratic burden or a misalignment between the immediate demands of the organization and the long-term benefits of a structured knowledge exploitation system.

The findings show that TechCo lacks a systematic process for organizing and accessing internal knowledge, instead relying on external tools and resources to meet immediate needs. This approach, while sufficient in the short term, underscores the long-term lack of knowledge retention and development of organizational expertise, which is characterized by an ad hoc and informal method of knowledge acquisition. TechCo's current approach does not promote a systematic exploitation of knowledge, leaving valuable knowledge fragmented and access dependent on external factors or individual initiative. The findings show that this leads to inefficiencies and inconsistency across the organization.

> *"If TechCo provides internal systems of information? No, not really, I mean, not at this stage. But I wouldn't say that's a problem. If I need to acquire knowledge, they will provide the tools that they have, or they will support it by providing the tools that they have. However, it's not something that we have in-house"* (Alex)

The quote further explains that the respondent does not perceive the lack of a structured knowledge exploitation system as a problem, primarily due to the immediate satisfaction of current needs. The respondents implies that even if they can access some of the necessary knowledge through existing tools like SharePoint and OneDrive, they may not see an immediate need to change the situation. This perception is likely reinforced by the organizational structure at TechCo, which may undervalue systematic knowledge exploitation, viewing it as overly bureaucratic or unnecessary. Additionally, the respondent seems to lack a full appreciation of the benefits that a more structured system could offer, such as increased efficiency, competitive edge, and exploitation of other specialist domain expertise. There is a comfort level with the current systems that, despite their limitations, prevents the recognition of their inefficiencies. This comfort shows a kind of self-satisfaction within the specialist's expertise domain and that the problems with the current system are ignored because it seems to meet basic needs, not providing in-depth knowledge.

4.2.3 Knowledge Integration

Due to the absence of a systematized approach for effectively integrating knowledge across the organization, knowledge becomes uncaptured and underutilized, hindering the organization's ability to take advantage of collective knowledge. This situation arises when specialists retain their own specific knowledge without sharing or integrating it with the broader organizational framework. The findings show that the consequence is a fragmented

knowledge base that hinders collective understanding of important knowledge for projects. The lack of integration becomes particularly problematic when key individuals are unavailable or when unexpected complications arise, requiring access to specialized knowledge that is kept rather than integrated into the organization. Knowledge integration at TechCo is not simply about making knowledge available, but ensuring it is understandable and usable for everyone in the organization that wants to utilize it.

> *"So, everyone ends up just keeping their knowledge to themselves, rather than integrating it in a way that would allow others to take part of it, if needed. It creates issues when someone is sick or unavailable, or if there's an implication. Yeah, that's a problem"* (Alex)

The quote further emphasizes that when specialists or departmental teams retain valuable knowledge within their own domains, this creates a segmented environment that hinders the exploitation and integration of specialized knowledge across the organization. Such isolation not only prevents the creation of an extensive, shared knowledge base that could enhance collective understanding and efficiency, but it also becomes particularly problematic when key specialists are absent or unexpected challenges arise. In these cases, the lack of accessible specialized knowledge can lead to operational delays or failures, underscoring the need for integrated knowledge exploitation in the organization. The quote further highlights the practical implications of this situation, pointing out a behavior where individuals unknowingly keep their knowledge instead of contributing to a shared organizational knowledge pool.

While the absence of a systematic approach to knowledge integration is evident. The situation calls for more proactive knowledge integration approaches that extend beyond just providing resources for operational tasks. The findings imply that implementing structured, educational programs aligned with TechCo's project objectives is seen as something that could help all specialists possess the necessary knowledge and skills outside their domain of expertise. This approach would not only improve individual and organizational performance but also foster a structure of continuous learning and development. In this environment, specialists would not need to independently acquire skills for individual tasks, instead, they could effectively develop their required competence by the organization.

"They have been the enabler for knowledge, but I have had to learn myself. TechCo hasn't signed me up to internal educational programs and said, 'This is what you need to learn,' but rather, I've had to educate myself on my own initiative" (Jonathan)

The individualistic approach to knowledge exploitation, as shown by the quote, highlights a situation of knowledge silos within TechCo. Without a systematic learning approach, each specialist develops a unique set of skills and expertise knowledge, while being valuable, this might not collectively contribute to or be fully compatible with the organizational needs. The lack of integration can hinder both individual development and organizational knowledge integration. This lack of integration shows that both the development of specialists and the organization's ability to effectively exploit knowledge depend on individual initiative from the specialists.

4.3 Summary of Empirical Findings

The exploration of new knowledge within TechCo's flat structure offers a blend of freedom and challenges for its specialists. The autonomous structure empowers the specialists to take ownership of their learning, fostering an environment of trust and decentralized decision-making. However, this freedom is accompanied by strict time constraints that creates significant barriers to continuous professional development and deeper knowledge acquisition. While the organization values and encourages self-directed learning, the lack of structured learning opportunities and formal educational support leads to a survival-based learning approach, where specialists are forced to prioritize immediate tasks over long-term learning goals. Therefore, the balance between emphasizing a trust-based autonomy, managing strict time constraints and giving structured support is crucial for fostering an environment where continuous learning and the exploration of knowledge can thrive within the frames of TechCo's flat structure.

The challenges faced in the exploration of new knowledge within TechCo, characterized by the freedom yet strict time constraints, set the stage for examining how knowledge is subsequently exploited within the same organizational structure. The knowledge exploitation at TechCo reveals a complex interplay of knowledge sharing and unintentional hoarding that significantly influences how knowledge is exploited across the organization. While the structure promotes openness and direct interactions, fostering an environment useful for

informal knowledge exchanges, it also facilitates selective sharing and knowledge hoarding. This selective distribution of knowledge, driven by voluntary engagement, leads to uneven knowledge exploitation and underutilization of specialist resources. Despite the availability of digital tools that could improve knowledge sharing, the actual practice within TechCo often results in critical insights remaining in silos, accessible only to those interested enough to seek them out. The absence of a structured system to capture and redistribute knowledge further increases these challenges, pointing to a need for more systematic approaches to knowledge exploitation to ensure that the organization fully leverages its intellectual assets for collective benefit.

5. Discussion

This chapter examines how specialist knowledge is acquired at TechCo within its flat organizational structure. It delves into the dynamics of both knowledge exploration and exploitation. TechCo's structure offers specialists considerable autonomy, facilitating an environment beneficial for innovation and personal growth. Yet, this freedom is countered by tight time constraints that hinder continuous professional development, requiring a balance between independence, time management, and formal educational support. Additionally, knowledge exploitation at TechCo involves a complex mix of open sharing and unintentional hoarding. Despite the structure's openness and encouragement of informal exchanges, it often leads to selective sharing and the lack of knowledge retention. This not only restricts the effective use of knowledge across the organization but also emphasizes the lack of systems to capture and redistribute knowledge. The findings also provided insights into how specialists at TechCo navigate their roles and address challenges within the flat organizational structure. Moreover, in this section, we will give insight into the findings and put them in context with previous research presented in the theoretical framework.

5.1 Organizational Learning

The findings show that specialists often learn from external information channels, effectively incorporating insights from these sources and translating them into actionable strategies to meet evolving deadlines. This process involves transforming explicit knowledge into tacit, actionable knowledge. Nonaka and Takeuchis' (1995) mode of internalization transforms explicit knowledge into tacit form, meaning that it is moved from the organization to the individual through explicit knowledge like structures and manuals. However, the findings indicate that the internalization mode at TechCo differs significantly from the explanation provided by the SECI model. While the SECI model suggests that explicit knowledge should be provided by the organization, TechCo does not offer structured manuals or information documents. Instead, specialists are encouraged to seek out the knowledge they find suitable on their own, resulting in individuals seeking knowledge under time pressure when it is needed to solve immediate tasks. Therefore, instead of the SECI model's concept of converting organizational knowledge into individual understanding, TechCo emphasizes a

survival-based approach to acquiring knowledge that builds on external rather than organizational knowledge.

When analyzing TechCo's survival-based learning environment, it becomes apparent that the organization's learning strategy closely aligns with the first two phases of Crossan et al. (1999) 4I-framework, intuiting and interpreting, but significantly struggles with the following stages of integrating and institutionalizing. Survival-based learning at TechCo, characterized by a heavy reliance of autonomous self-directed, just-in-time knowledge acquisition under tight time constraints, effectively captures the essence of the intuiting phase. Here, specialists recognize patterns and possibilities subconsciously through their daily tasks and challenges (Crossan et al., 1999), leading to the generation of innovative ideas or the identification of knowledge gaps in need of attention.

The interpreting phase, though partially aligned with survival-based learning, reveals limitations. Specialists at TechCo develop a shared language and cognitive maps within their teams to articulate their insights (Crossan et al., 1999), driven by individual initiatives. One could argue that the shared language is already integrated into conversations, as the specialists possess deep, localized knowledge within specific domains (Taylor & Greeve, 2006), and therefore already have a notion of the shared language. Nonetheless, the individual initiative in creating a shared language and cognitive maps reflects the organization's reliance on personal communication channels and informal gatherings to share and interpret knowledge. However, Hecker's (2012) explanation of collective knowledge involving complex layers of shared understanding and practices highlights a critical issue at TechCo, which is that the depth of this shared understanding remains on the surface due to the need for immediate application rather than thorough, collective cognitive processing.

The critical challenge for TechCo emerges in the integrating and institutionalizing phases. The organization fails to evolve a shared understanding into collective actions beyond individual projects or problems. Integration, which requires ongoing conversations and a collective mindset (Crossan et al., 1999), is constrained by the ad-hoc and decentralized nature of learning. Without structured mechanisms to facilitate consistent and collective knowledge practices, the learning remains fragmented and isolated within teams or individuals, never being exploited by the organization. Jonsson (2015) emphasizes the significance of knowledge sharing in day-to-day work, highlighting the role of structured

routines, interactions, and discussions in facilitating learning. Due to the survival-based learning approach at TechCo, Jonsson's (2015) emphasis on encouraging structured and ongoing discussions is overlooked, resulting in a lack of attention to institutionalization as well. The last stage of the 4I-model, which should see these learned behaviors and insights becoming embedded within organizational routines and structures (Crossan et al., 1999), is clearly absent at TechCo. The survival-based learning environment, characterized by a lack of formal learning structures and immediate task-driven knowledge acquisition, does not support the embedding of new knowledge into the organization's systems, making the specialists learning temporary and situational.

The ineffective exploitation and integration of knowledge at TechCo may hinder organizational learning, but it does not necessarily have the same impact on the individual specialist's learning. While TechCo lacks systemized knowledge available for specialists to exploit, the findings suggest that they tend to prefer exploring knowledge independently. Since the knowledge the specialists have to acquire is often highly specified and the nature of the ever developing tech industry, they tend to prefer exploration of external knowledge when dealing with emerging tasks. Argote et al. (2020) argues that search activities, conducted internally or externally, aim to uncover alternatives and their potential outcomes. For specialists at TechCo, due to the absence of knowledge systemization and the necessity for up-to-date information, the most promising outcome often comes from external knowledge exploration. Therefore, specialists' search behavior naturally turns to updated external sources, seeking knowledge for anticipated problems and leading the development of new solutions, mirroring the concept of search outlined by Cyerth and March (2015).

5.2 Knowledge Retention

The organizational structure at TechCo facilitates rapid knowledge exchange through a flat structure that supports informal interactions, enabling specialists to directly reach out to colleagues and management for advice or inputs without bureaucratic delays. This strengthens Jonsson's (2012) concept of the personification of knowledge, which proposes that knowledge sharing primarily happens through interpersonal interactions. The dynamic nature of these social exchanges fosters the exploration and uncovering of new knowledge, providing benefits for fast individual learning. This indicates that the lack of depth of some systemized resources is not a concern, since these resources serve as small elements of a

broader knowledge framework. Therefore, specialists actively seek out and selectively apply knowledge to tackle new problems, drawing from diverse sources to bridge gaps in their expertise. The specialists' ad-hoc approach to learning and problem-solving is comparable with strategies highlighted by Wenger (1998) in his discussion on communities of practice. Wenger (1998) emphasizes the value of informal networks and peer-to-peer learning in rapidly changing environments, which supports the nature of the informal interactions between specialists at TechCo. However, as noted by Nonaka and Takeuchi (1995), while this method fosters quick solutions, it may not effectively contribute to organizational knowledge unless experiences are systematically captured and shared.

While personification fosters an internal organizational knowledge acquisition process, it presents significant challenges in knowledge retention and systematic integration within TechCo. Yang and Wu (2008) argues that a key objective of managing knowledge is to improve or enable knowledge sharing within organizations. This ensures that members can effectively use and exploit their knowledge, improving both organizational and individual development. Therefore, if knowledge sharing is inefficient within an organization, it is likely to decline over-time. The findings show concern about the previous argument and highlights the "use it or lose it" phenomenon, which underscores the risk of knowledge that remains undocumented. Hall (2006) argues that codification, the process of converting knowledge into a standardized, transferable format, is essential for ensuring that knowledge exists beyond the individuals who initially acquire it. By incorporating Hall's (2006) argument on codification, TechCo could preserve knowledge, ensuring that intellectual assets are not lost when individuals depart from the organization, therefore maintaining continuity. This process also enhances transferability, allowing knowledge to be exploited efficiently across various parts of the organization, which is essential for scaling operations and sharing knowledge between specialists consistently.

Building upon this, codification not only makes knowledge transferable but also commodifies it, enabling clearer definition of its content and intellectual properties (Cowan & Foray, 1997). The findings in the relation to the theoretical framework indicate that TechCo lacks a structure to transform individual expertise into collective knowledge. This gives strength to Hall's (2006) argument that the process of converting knowledge into a standardized format is essential in ensuring that knowledge exists beyond the individuals who initially acquire it. TechCo's structure limits the potential for systematic exploitation across the organization.

Integrating more formal codification strategies could enhance knowledge transfer by providing a structured approach to converting tacit knowledge into explicit, which is crucial for sharing individual specialists' knowledge among one another.

Additionally, TechCo's emphasis on informal exchanges, exemplified by quick Slack messages or improvised meetings, results in a lack of formal systematization. This practice speeds up decision-making but fails to create a sustainable repository for the knowledge exchanged. Nonaka and Takeuchi (1995) emphasize the importance of externalization and combination in their SECI model, processes that convert tacit knowledge into explicit forms and integrate various pieces of explicit knowledge into accessible formats. While TechCo's predominant focus on socialization (sharing experiences through shared spaces and conversations) and internalization (embracing explicit knowledge through learning by doing) limits their ability to fully exploit the potential of externalization and combination. This oversight results in valuable insights remaining undocumented and unshared, making it difficult for the organization to systematically exploit this knowledge and improve the specialists knowledge acquisition past their domains.

Brown and Duguid (1991) argues that specialists, distinguished by domain-specific expertise, excels in acquiring and integrating new, detailed knowledge within a limited scope and that the focus on specialization is closely associated with exploitative learning. Our findings indicate that the specialists at TechCo differ from this argument. In their work environment, where both exploration and exploitation are severely limited, the specialists at TechCo have adapted to a survival-based learning approach. For knowledge to be effectively exploited, it must be captured, codified, and made accessible so that it can be leveraged beyond the specific context in which it was generated (Hall, 2006). The findings show that specialists at TechCo often retain critical knowledge without realizing it, causing this knowledge to be held by only a select few instead of being codified and exploited throughout the organization. The absence of formal systems to capture and redistribute this knowledge shows that much of the expertise, although shared informally, risks becoming isolated and not integrated at TechCo.

As discussed, each individual is accountable for completing their portion of the puzzle using their own pieces. The findings indicate that specialists may have varying degrees of understanding and different pieces of expertise about project requirements or technical details, leading to inconsistencies in project execution and knowledge continuity. This

fragmentation can result in teams working in silos, each with an incomplete picture of the overall project landscape. Reitzig (2022) highlights the efficiency of flat organizational structures compared to traditional hierarchical ones and that a flat structure shortens decision paths and accelerates decision-making. However, the findings from TechCo indicate that in environments where knowledge exchange is predominantly informal, there is often an overreliance on key individuals who hold significant tacit knowledge. If these individuals are unavailable or leave the company, their departure can create a knowledge gap that is difficult to fill due to the lack of formal documentation, hindering knowledge retention within TechCo.

Additionally, the efficiency of decision-making processes in the flat organizational structure heavily depends on the specialists ability to take responsibility and codify their knowledge throughout the organization. Reitzig (2022) argues that involving more individuals in decision-making can slow down the knowledge-sharing process, as the additional time required to spread knowledge across the organization might contradict the efficiency benefits of a flat structure. However, the findings indicate that while the flat structure facilitates quicker informal knowledge sharing, it lacks systematic retention of this knowledge. This suggests that the additional time needed for knowledge distribution differs from Reitzig's (2022) argument regarding knowledge exploitation in flat structures.

The retention of knowledge, particularly the conversion from tacit to explicit, is a crucial component that should be integrated into the process of specialist knowledge acquisition beyond their domains, ensuring the preservation of knowledge within TechCo. However, it can be challenging to share and spread this kind of knowledge as it is often unstructured and encounters many obstacles that prevent effective distribution (Asrar-ul-Haq & Anwar, 2016). This problem becomes apparent when a specialist engages in an informal conversation, sharing tacit knowledge with another specialist, without codifying it. Without such codification, the knowledge remains inaccessible to other specialists at TechCo, limiting its potential for widespread exploitation and integration into the broader organizational knowledge base.

5.3 Task-Specific Knowledge

Dougherty (1992) argues that specialized human capital comes with a limitation of the ability to exchange and integrate new knowledge outside their specialized area and that specialist

human capital tends to prioritize exploitation over exploration. The empirical findings from TechCo suggest that specialists in a flat structure neither prioritize external exploration of new knowledge nor focus on exploiting existing knowledge effectively. TechCo's emphasis on autonomous freedom in combination with the absence of time for exploration makes it challenging for specialists to effectively explore new knowledge to bring into the organization. This results in a survival-based learning environment, characterized by a focus on immediate task-driven knowledge acquisition, which does not support the integration of new knowledge into organizational systems for exploitation. While Reitzig (2022) argues that the decentralized decision-making process within a flat organizational structure streamlines operations like organizational information gathering, our findings suggest that this structure promotes autonomy and self-directed learning and assigns the specialists with the responsibility to operate independently. Therefore, the structure overlooks the opportunity for valuable systematization of knowledge and fails to promote effective storage and integration of new knowledge for organizational exploitation.

This oversight becomes particularly challenging when analyzed in the context of TechCo and its approach to knowledge acquisition. At TechCo, specialists are neither focused on exploiting existing knowledge nor on exploring new knowledge, which could have long-term implications for organizational development. Wang and Ahmed (2003) emphasize the importance of not just storing knowledge but ensuring it circulates freely within an organization. Wang and Ahmed (2003) further suggest that the organizational design should facilitate free flow of knowledge, often supported by informal networks that enable the sharing of tacit knowledge. While this is a compelling argument, the findings at TechCo illustrate that such dynamics can pose challenges in a flat organizational structure, particularly concerning the specialists ability of knowledge acquisition and organizational learning.

Here, the findings suggest the implementation of a degree of hierarchical control would be beneficial in TechCo's knowledge acquisition for specialists. Paradoxically, this action makes the organization somewhat less flat and more controlled, directed towards achieving organizational learning goals. This approach differs with the argument by Claver-Cortés et al. (2007) that for organizations aiming to be more innovative and adaptable, it is important to have flexible structures that can easily handle change. Such flexibility typically involves adopting a more decentralized structure, which facilitates quicker decision-making and more

effective use of expertise. However, the findings show that by distributing the responsibility of knowledge acquisition beyond just the specialists, the organization could ensure that individual learning and expertise are aligned with broader organizational objectives, thereby integrating individual expertise across the entire organization. The findings suggest that by integrating more structured control, TechCo could enhance its approach to overcome challenges, as it relies on survival-based and ad-hoc learning methods that prioritize task-specific individual knowledge through limited exploration and exploitation of knowledge. A more controlled approach could enable TechCo to systematically explore new ideas and effectively exploit existing knowledge, ensuring that the short term learning methods for exploitation and exploration would become more integrated into the whole organization.

In contrast, Brown and Duguid (1991) describe specialist human capital as characterized by specialists that excel in acquiring new, in-depth knowledge within a specific domain. At TechCo, specialists operate in an environment where they autonomously acquire task-specific and highly specialized knowledge, emphasizing depth over breadth in their learning. This approach prioritizes the quick acquisition of knowledge suited to immediate needs, allowing specialists to deepen their understanding and refine their skills with efficiency. By focusing on task-specific knowledge acquisition, individuals develop an in-depth understanding of their specific domains, enabling them to navigate challenges in their everyday work with precision and confidence. Within TechCo's flat organizational structure, this approach thrives, empowering specialists to act independently in pursuit of organizational objectives. This flexibility often involves a high degree of decentralization to enable quick actions and effective use of expertise (Claver-Cortés et al., 2007). As a result, while TechCo's task-specific learning strategy may prioritize specialization over general knowledge, it creates a workforce known for its expertise and ability to excel in dealing with complex challenges effectively.

Ultimately, TechCo's flat organizational structure, while promoting autonomy, unintentionally hinders systematic knowledge acquisition and integration. The emphasis on specialist autonomy leads to a focus on immediate, task-specific learning, which limits broader organizational learning and the integration of new knowledge for exploitation. This creates a cycle of survival-based learning that prioritizes immediate needs over long-term development. Introducing a degree of hierarchical control could balance the need for

specialist autonomy with the broader organizational goals of effective knowledge exploration and exploitation, therefore aligning individual expertise with organizational objectives for a more integrated and effective approach to learning and development.

6. Conclusion

The aim of this study is to improve the current understanding of how specialists acquire knowledge outside their domain within a flat organizational structure. Additionally, we aim to highlight key factors influenced by or impacting the specialists in a flat organizational structure. In the previous section, we grounded our empirical findings in existing literature, providing our interpretations and insights. This section will clarify how our empirical findings, interpretations, and arguments contribute to existing literature and discuss the practical implications of our research. Furthermore, we will address the limitations of our study and propose future research opportunities within the scope of knowledge management and organizational structures. Lastly, we will conclude with the studies' practical implications.

6.1 Empirical Findings

In our empirical findings, we identified the mix of autonomous freedom and significant time constraints as a critical factor shaping survival-based learning among specialists. This type of learning is primarily reactive, with specialists acquiring knowledge that is immediately applicable to their current tasks, often at the expense of deeper and long-term professional development. The fast-paced work environment requires that learning occurs within tight schedules, which constrains the ability for more comprehensive exploration and understanding. Consequently, this survival-based approach to learning not only limits the depth and scope of knowledge acquisition but also restricts the specialists' capacity for broader innovative contributions and long-term growth, posing a significant challenge to both individual and organizational advancement.

The findings further reveal that the unintentional knowledge hoarding at TechCo is an issue, significantly influenced by the flat organizational structure that emphasizes voluntary knowledge exchange. While the structure, through its decentralized nature, promotes access to expertise and encourages informal interactions, it also leads to selective sharing of knowledge. This selective knowledge sharing results in knowledge being concentrated in the hands of a few, not being fully exploited across the organization. The lack of formal mechanisms to capture and systematically redistribute knowledge means that much of the

expertise shared informally becomes siloed and forgotten. This scenario underscores the potential for collective learning and operational efficiency, indicating a crucial area for improvement in capturing and managing knowledge within the organization. The retention of knowledge, particularly the conversion from tacit to explicit, is a crucial component that should be integrated into the process of specialist knowledge acquisition beyond their domains, ensuring the preservation of knowledge within TechCo. Therefore, problems arise when specialists engage in informal conversations, sharing tacit knowledge with another specialist, without making it accessible to all specialists in the organization. Consequently, specialists operating within a flat organizational structure like TechCo should consider adopting a more systematic and codifiable approach to knowledge acquisition, ensuring that valuable knowledge stays within the organization.

Our last key finding shows that TechCo faces challenges in managing its fast-paced environment where specialists must balance project responsibilities with personal growth, fostering an approach of task-specific knowledge acquisition. Without structured learning initiatives, specialists often use personal time for self-education due to tight project deadlines. The flat organizational structure allows for autonomy but complicates the allocation of time for professional development, this is implied by specialists who struggle to fit learning into their busy schedules leading to survival-based learning. Despite recognizing the importance of continuous learning to remain competitive, personal development frequently becomes secondary to meeting immediate project demands. Additionally, the challenges presented by TechCo's fast-paced environment shows the critical role of discipline in effective time management, particularly that discipline is essential for specialists in flat organizations to effectively acquire knowledge outside their domain. Therefore, fostering a culture of discipline alongside learning initiatives is crucial for the success of knowledge acquisition efforts within the organization.

To summarize, the findings reveal that survival-based learning among specialists is driven by a combination of autonomy and tight deadlines, leading to knowledge that is immediately applicable but without depth, limiting long-term development and innovation. TechCo's flat structure promotes voluntary, yet selective knowledge sharing, resulting in unintentionally knowledge hoarding and inefficiency. This lack of formal mechanisms for knowledge distribution leads to lost opportunities for broader learning and organizational growth. Lastly, the fast-paced environment pressures specialists to prioritize immediate tasks over

professional growth, necessitating more structured learning and disciplined time management to enhance knowledge acquisition and retention.

6.2 Theoretical Contribution

Our research suggests a need to refine existing knowledge management theories, such as the SECI model by Nonaka and Takeuchi (1995) and the 4I-framework by Crossan et al. (1999), to better reflect the dynamics of less hierarchical environments. Traditional models often assume structured knowledge-sharing mechanisms, which contrast with the informal, individual-driven processes observed in flat organizations. Refinements should incorporate the significant role of informal networks, the impact of autonomy on engagement with knowledge processes, and the challenges of integrating and institutionalizing knowledge without formal organizational support. Additionally, the findings suggest that the conventional stages of knowledge transformation and integration are not always linear or systematic in less hierarchical settings, which can inform modifications to these theories to better accommodate diverse organizational forms.

By focusing on specialists' experiences in flat structures, the research sheds light on the specific challenges and strategies of knowledge acquisition beyond their expertise areas. This adds to the discussion about the value of specialist versus generalist roles as discussed by scholars like Brown and Duguid (1991) and Taylor & Greeve (2006). The findings contribute to a more nuanced debate on how organizational structures can be designed to balance the depth and breadth of knowledge crucial for innovation and adaptability. Therefore, maintaining a degree of control within flat organizational structures is crucial to prevent overly burdening specialist human capital with the sole responsibility for organizational learning.

6.3 Limitations

Given our focus on specialist human capital in a flat organizational structure, it is of importance to acknowledge the potential influence of the organization's structure and the individuals expertise in their respective fields on our results. It is important to recognize that our findings primarily relate to specialists in flat organizational setups, therefore posing a limitation in the applicability to generalist human capital and hierarchical structures. Additionally, since our research was conducted in partnership with a single organization, the

chosen topic needed to align with the company's interests and objectives. Therefore, it is important to acknowledge that all respondents were associated with the same organization, possibly influencing the responses due to their interest in the organization, which could have impacted our findings.

The study's limited sample size, consisting of ten specialists' opinions and subjective thoughts, poses an additional limitation. However, we observed that the specialists provided sincere responses, engaging in open discussions about topics such as the complexity of a flat organization. Therefore, we believe that despite the smaller sample size, the reliability of our empirical data remains unaffected. Finally, a qualitative limitation appears as the findings lack generalizability to broader populations or contexts outside this specific study. This comes from the study's small sample size and its focus on an in-depth examination of a specific subject, restricting the ability to draw wide-ranging conclusions.

6.4 Future Research

We suggest that further research could investigate the influence of organizational culture on knowledge sharing, learning opportunities, and specialist development within flat organizations characterized by specialist human capital. Future research could specifically delve into how cultural norms, values, and practices shape employees' behaviors and attitudes towards sharing knowledge, seeking learning opportunities, and advancing as specialists. Therefore, understanding the influence of culture on these aspects can offer valuable insights for organizations seeking to optimize their knowledge management strategies and foster an environment for continuous learning and professional growth.

Lastly, reflecting on our earlier point, the study's limited sample size, consisting of ten interviews, stands as a limitation of the study. Therefore, exploring a more extensive sample size in future research attempts could provide findings that are generalizable across diverse organizations. Moreover, we propose that a quantitative research approach could offer interesting directions for future investigation. Quantitative studies are typically structured to produce results that can be applied to a broader population, offering a more comprehensive understanding of the entire group. This would provide deeper insights into the understanding of how specialists acquire knowledge outside their domain within a flat organizational structure.

6.5 Practical Implications

This research provides practical implications of managing knowledge within flat organizational structures, particularly through the lens of specialists' experiences at TechCo. It highlights how these structures, while promoting autonomy and reducing hierarchical barriers, requires a balance of control to prevent specialists from becoming siloed in their knowledge domains. The key takeaway for practitioners is the importance of designing organizational processes that not only facilitate knowledge sharing but also ensure that specialist human capital have the necessary frameworks to acquire and integrate knowledge beyond their immediate areas of expertise.

The discussion emphasizes that flat structures, by reducing layers of decision-making, can enhance communication and accelerate knowledge flow. However, without sufficient mechanisms to ensure the integration of this knowledge across different domains, there is a risk that knowledge remains restricted to individual specialists, limiting the organization’s capacity to innovate and adapt. Therefore, organizations are encouraged to implement structured knowledge management practices that include regular educational sessions, collaborative projects, and knowledge-sharing platforms that are easily accessible to all individuals. While flat organizational structures offer a productive ground for innovation by leveraging specialist knowledge, they also require support systems to help these specialists bridge their deep, localized knowledge with the broader needs of the organization.

Ultimately, this research provides a framework for organizations operating in knowledge-intensive industries to harness the full potential of their specialists, ensuring that their deep domain knowledge translates into widespread organizational benefits. This involves setting up policies that support constant learning and new ideas, helped by technological tools that make it easy to share and manage knowledge through the organization.

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Appendix

Interview Guide

The interview guide displays the complete question guide used in this research.

1. Can you describe your role and responsibilities within the organization?
2. How would you describe expertise within your current field of work?
3. Can you share an experience when you had to seek knowledge outside your domain to complete a task or project?
4. What motivated you to explore knowledge outside your expertise area?
5. How do you typically go about acquiring new knowledge or skills that are outside your immediate domain?
6. Have you encountered any challenges or barriers when trying to acquire knowledge outside your domain?
7. How does the organizational structure influence your ability to access and acquire knowledge beyond your expertise area?
8. Can you describe any support or resources provided by the organization to facilitate knowledge acquisition?
9. How do you apply the knowledge or skills you've acquired in your current role?
10. In your opinion, how has acquiring knowledge outside your domain influenced your overall expertise development within the organization?