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An Organization's Ability to Improve Outsourcing Outcomes in Information Technology Outsourcing Initiatives by Increasing Organizational Knowledge: A Case Study

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by

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Dedication

Never be afraid to trust an unknown future to a known GOD.

—Corrie Ten Boom

This dissertation is dedicated to my grandchildren Nathan, Joshua, Anika, Aryana, Angelina, and John. Remember always to ensure you strive to continually learn and explore new things. Be the encouragement in the lives of others and remember you are wonderfully and purposefully made. I love you all always and forever!

This is finished Mom and Dad—I love you and miss you both every day.

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Abstract

The problem addressed in this study was the literature gap regarding how internal organizational knowledge can be increased effectively within outsourcing projects. The study was a qualitative social constructionist case study composed of senior technology leaders. The purpose this study addressed was to understand the current structure of technical outsourcing contracts and how future contracts could be structured to address the problem of this study. The research incorporated how a reconceptualized absorptive capacity model, sociocognitive theory, and digital leadership mindsets could improve knowledge transfer outcomes between a vendor and client. Research shows that increasing an organization's knowledge during an outsourcing project can lead to increased organizational innovation capacity and improve the output and quality of products. The qualitative semistructured interview data were codified manually using transcribed data with NVivo 12 software for depicting patterns and themes. The study findings indicated that corporate learning programs lacked the necessary rigor to prepare the organization effectively before and after an outsourcing engagement in terms of preparing associates with the technical knowledge transfer necessary to lessen future vendor dependencies. Additionally, I found a lack of formalized language depicting learning and knowledge transfer deliverables in outsourcing contracts. The study's primary conclusion centered on the importance of leaders incorporating a more digital mindset and a corporate learning program focused on a structured, continual strategic learning program. Additionally, the development and inclusion of formalized learning objectives, knowledge transfer, and stated deliverables in an outsource contract are vital.

Keywords: outsourcing, social constructionist, case study, digital leadership mindset, financial services industry, absorptive capacity

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Chapter 1: Introduction

Technology leaders at Nebraska Financial Institute (NFI; pseudonym for the organization selected for this case study) find themselves challenged due to the increasing need to solicit specialized technology for outsourcing vendor engagements to execute technology projects. The need for these outsourcing engagements is due to the rapid rate of change and integration of complex and disruptive technologies. Current technology staff lacks the expertise specialized vendors offer to deliver NFI's business units' strategic initiatives. Studies have shown organizations are faced with soliciting partnerships with multiple external specialized technology implementors due to the lack of internal knowledge and expertise to deliver these strategic complex technology innovations (Kappelman et al., 2018). As of 2019, information technology consulting and implementation outsourced services in the United States were $20.051 billion, with the expectation of a 3.6% growth year-over-year rate the next 5 years (*IT Consulting and Implementation—United States*, n.d.). The digital age transformation organizations face requires continual learning and leadership, which can lead to effective change.

Leaders cite strategic business and economic objectives and the need to outsource technology projects due to the lack of internal knowledge and skill sets as the catalyst for engaging in outsourcing (J. Park et al., 2011). The outsourced technology is critical for an organization or business unit to compete effectively by replacing an aging system, implementing new technology, or performing a system or application upgrade. The client's economic performance includes their capability to manage the newly implemented technology solution efficiently without costly ongoing vendor-led services. However, many leaders lack the understanding of the essential learning processes, structures, and digital leadership competencies for transferring knowledge from a vendor in outsourcing projects (J. Park et al., 2011).

Today, business leaders are faced with an ever-increasing hypercompetitive climate to develop new products, typically via project teams (Huang et al., 2015). The hypercompetitive business markets require organizations to understand the four fundamental learning activities of explorative, acquisition, assimilation, and exploitative knowledge processes in seeking new, innovative knowledge. The necessity of the client organization to understand the process of searching for and acquiring, assimilating, transforming, and exploiting the information from an external resource is a process organizational leadership recognizes as a risk to project success and corporate innovation (Patterson & Ambrosini, n.d.). This knowledge deficiency is potentially attributed to a lack of absorptive capacity (ACAP). This ACAP theory is the concept Cohen and Levinthal's (1990) seminal research introduced as a vital component of understanding the value of newly acquired external knowledge and an organization's ability to implement an innovation or provide other organizational strategic benefits effectively. Lane et al. (2006) reconceptualized the ACAP model, and the new process-centric model can become foundational in developing an organization's strategic learning process. The method and structures to facilitate ACAP are a necessary leadership competency and a challenge most organization leaders face today in understanding the process (Cohen & Levinthal, 1990; Zahra & George, 2002).

Leaders are directly responsible for developing and facilitating relationships between a vendor and internal project resources to guide the organizational transformation. The development of a trust-based relationship between the vendor and client project teams is foundational in the execution of the ACAP processes, which focus on acquiring new external knowledge for targeted strategic benefits from the outsourcing engagement (Patterson & Ambrosini, n.d.). This transformational aspect of change is a leadership competency that can be significant in the development of both incremental and transformative learning between the

vendor and the client. This potential learning opportunity is dependent on the understanding and successful navigation of the client's cultural environment (Petriglieri, 2019). Leaders who are capable of building trust with individuals from both the vendor and client teams understand they must navigate and utilize conflict as a tool to benefit innovation (Petriglieri, 2019). Managers should focus on developing employees' cognitive learning skills and developing the structures necessary for a critical component of ACAP "exploitation" to occur. Exploitation is responsible for facilitating knowledge transfer and transformational organizational learning processes to utilize the newly acquired external knowledge for corporate gains (Huang et al., 2015).

Project team-based interactions are complex and present large amounts of information that individual members must process to learn within a sociocognitive perspective. These social interactions form a cognitive capability perspective, which can be fundamental in moderating the processing of large amounts of complex information from a T-shaped or A-shaped model of project team leaders and members' abilities (Huang et al., 2015). Another critical variable in knowledge acquisition and exploitation is the agreement in the project's strategic direction and mission (Huang et al., 2015). A 3-year study by Ben-Hur et al. (2015) composed of 87 corporate learning and development (L & D) professionals representing 61 organizations who participated in an Institute for Management Development (IMD) project, found leaders who focused on the ability to convey and develop excitement in strategic initiatives witnessed positive learning outcomes occur by individuals. Neuroscientists in the L & D study by Ben-Hur et al. (2015) recognized urgency and excitement had the propensity to trigger cognitive and emotional regions of a learner's brain and provide an advantageous learning experience (Ben-Hur et al., 2015).

Today, many organizations rely on associates to participate and actively engage in continual learning programs, both corporately and independently, to stay current due to the rapid

pace of technology advances. While these L & D programs are valuable for many in the organization, technology leaders are concerned that the necessary strategic technology project initiative expertise is lacking in both internal employees and L & D offerings. This lack of priority by corporate technology training in L & D programs is recognized statistically from a recent survey in 2019 of 70 L & D professionals in the United States, in which only 2% noted technology as their top learning and development priority (Findcourses.com, 2019). Furthermore, technology leaders surveyed agreed with the L & D programs necessary to facilitate the specialized training needed to support and prepare employees in advance of these strategic projects and that the rapid technological advances occurring today are difficult to develop and are currently inadequate.

Statement of the Problem

Technology leaders and organizations are increasingly becoming deficient in innovation and strategic initiatives due to outdated mental models. These deficiencies result in blind spots of emerging technologies or the lack of proper sensemaking of future skill sets and the continual learning process their organizations require to be competitive (Ready et al., 2020). Ready et al. (2020) showed 40% of 4,394 global leaders stated their organizations have developed digital-savvy leadership behaviors to lead in the digital economy. The impact of outsourcing initiatives related to this lack of digital leadership competencies to assimilate and exploit the new external knowledge for organizational knowledge is declining (Ready et al., 2020). Many researchers differ on these leadership outsourcing challenges, which range from recognizing future employee skill competencies to defining and developing future-state job roles, facilitating vendor relationships, and understanding of ACAP both individually and organizationally to develop a continual learning curriculum for employees (Chaudhuri & Bartlett, 2014; Cui, 2017; Seo et al.,

2015). The consequences of failing to develop these organizational competencies could result in the inability of the client employees to support the new computing infrastructure and increase the potential of project failures (Chou et al., 2015; J. Park et al., 2011; Teo & Bhattacherjee, 2014). Particularly, Chou et al. (2015) recognized this lack of vendor–client knowledge transfer increases the risk of vendor dependency, limits product and process innovation, and increases the potential of growing run-rate costs.

Researchers disagree on strategies IT leaders should utilize to overcome the outsourcing learning and knowledge transfer challenges their organizations and employees face (Beranek & French, 2011; Ford et al., 2017; Teo & Bhattacherjee, 2014). Several studies (Ford et al., 2017; Garcias et al., 2015; Golmoradi & Ardabili, 2016) focus on developing the positive social interactions necessary to develop exploitive and explorative learning necessary for individual and organizational knowledge transfer. Other researchers stress ACAP, building trust within virtual teams, and leadership conflict competency as critical components of outsourcing and virtual team leadership, leading organizational change, and drivers for innovation development (Beranek & French, 2011; Chrisentary & Barrett, 2015; Schweisfurth & Raasch, 2018). The need to define an outsourcing ACAP knowledge transfer strategy and lead organizational change will increase the probability that financial organizations such as NFI will have successful outsourcing outcomes. Researchers lack agreement in the literature of outsourced project success for effective knowledge transfer processes during the vendor–client engagement using concepts related to ACAP models, social sciences mental concepts, and digital leadership behaviors (Lane et al., 2006; Ready et al., 2020; Ringberg & Reihlen, 2008).

Further exploration of the digital age, strategic, and conflict leadership competencies in leading virtual communities of practice through conflict and relationship development within the

outsourcing context could help prepare an organization proactively in strategic outsourcing initiatives. The problem I sought to address was whether internal technical resources and organizational knowledge could be increased by effectively deploying structured learning processes within outsourcing contracts. This lack of agreement with research results in a gap in the literature addressing this problem. A plethora of research addresses problems that negatively impact outsourcing successes and reasons for continual vendor dependency due to a lack of internal employees' knowledge and skills. However, through exploration of the foundations of the literature presented in this research, this research information could help organizations in vendor–client engagements and employee knowledge development.

Purpose of the Study

The purpose of this study was to understand NFI's infrastructure and security leaders' criteria used in the formation of their outsourcing and managed service contracts strategy and how effectively these criteria impacted knowledge transfer between the vendor and client. This case study used a process-based ACAP model to understand other effective knowledge transfer processes between external and internal sources. The functions and processes of the ACAP model require leaders who are skillful in digital leadership mindsets and who are conflict competent to guide diverse project teams' social dialectic transformative interactions. These leadership skill sets, along with the ACAP model, guided and formed this study's research and investigative questions. The investigative questions were designed to stimulate dialogue to capture any phenomena related to a particular leadership behavior or process attributed to project success and employee knowledge growth. The goal was to qualitatively understand if project success included outsourcing project contracts to lessen future vendor dependency by increasing internal employee knowledge.

Research Questions

Qualitative case studies exist to understand how groups of people derive meaning from an exploratory perspective, seeking to understand opinions, contexts, and situations, or perhaps from a systems perspective to derive new knowledge and understanding (Patton, 2015). The study explores IT infrastructure and security outsourcing projects' complexity and the implications of leadership behaviors responsible for influencing the knowledge transfer necessary to improve internal organization knowledge, innovation, associate engagement, and project outcomes. Qualitative researchers routinely develop core questions and several probing questions supporting or expanding the central inquiry for clarification and further meaning for the researcher (Creswell, 2014). The core questions provide the framework in the data collection process and analysis aspects of forming the interviews. The six research questions developed assisted in understanding the purpose and problem of this study. Below are the six research questions guiding the interview questioning, as listed in Appendix C.

RQ1: What is the main purpose for outsourcing to a third party (such as lack of internal knowledge, skill, or staff augmentation)?

RQ2: How effective is your team in acquiring and assimilating external knowledge to organizational knowledge from the vendor to client?

RQ3: How effective and prevalent are your team member social interactions and team dynamics?

RQ4: How well do NFI learning and management programs prepare technology workers?

RQ5: What are your leadership responsibilities and behaviors necessary to facilitate associate growth before, during, and after outsourcing engagements?

RQ6: How well do NFI's culture questions support outsourcing and learning objectives?

Definition of Key Terms

For the purpose of this study, the following definitions will provide the reader assistance in clarifying terms and their application usage.

Absorptive capacity. The new definition used in this research is a firm's ability to utilize externally held knowledge through three sequential processes: (1) recognizing and understanding potentially valuable new knowledge outside the firm through exploratory learning, (2) assimilating valuable new knowledge through transformative learning, and (3) using the assimilated knowledge to create new knowledge and commercial outputs through exploitative learning (Lane et al., 2006, p. 856).

A-shaped skills. These are skills through which leaders within project teams exhibit professional and interpersonal skills. This A-shaped skill set is a unique ability of leaders to facilitate multiple sources of knowledge and assist the project team members in utilizing the exploitation aspect of ACAP to transfer into collective organizational knowledge. These skills are said to be critical moderators of knowledge transfer (Huang et al., 2015).

Cognitive distance. This "concerns differences in how individual people see, interpret, and evaluate the world. … Strategic alliances with a particular focus on new technology development and innovation … focus on the distance between alliance partners in terms of technological knowledge" (Nooteboom et al., 2005, para. 2).

Compute infrastructure. These are the systems in place—either cloud or on-premise data center server, storage, network, security, virtual desktop, or unified communication systems—to provide a platform to operate all NFI's application, software, and data storage needs.

Digital leadership. Leadership is defined as performing the appropriate items for the organization's digitalization objectives to support its ecosystems and strategies (Sawy et al., 2016).

Exploratory learning. This type of learning is aimed at facilitating activities to stimulate perhaps radically new knowledge and ideas that are not known (Garcias et al., 2015).

Information technology core services. Services include technology consulting services, technology outsourcing, software, and CIO staff spending.

Information technology outsourcing. A third party provides NFI the resources from a process, staff augmentation, or managed service to assist in development or operational initiatives.

Inverted-U concept. The concept is noted from the Yerkes-Dodson law, which states that during relationships, performance is dependent on interactions where the cognitive distance between members of vendor–client teams is manageable and collaboration arousal between members is kept to an acceptable level (Cohen & Levinthal, 1990; Nooteboom et al., 2005).

IT density. This concept focuses on the organization's current knowledge capacity, potential, and understanding concerning outsourcing project technologies, processes, and outcomes.

Mental models. Mental models among users reflect varying levels of understanding of the systems or processes from which they are required to glean information (Westbrook, 2006).

Outsourcing strategy. This is the mindset to supplement or improve innovation, production capacity, quality, or staff augmentation of technology or process resources at NFI.

Reification. Reification is the outcome of the process by which people forget the authorship of ideas and theories, objectify them (turn them into things), and then forget that they have done so (Lane et al., 2006, p. 835).

Scaffolding. Vygotsky (1987) defined this principle of "the process of giving support to learners at the appropriate time and at the appropriate level of sophistication to allow successful advancement across the zone of proximal development" (as cited in Ringberg & Reihlen, 2008, p. 181).

Security leaders. These are leaders from the Corporate Security Group (CSG) who oversee the network and security operational staff and provide architecture, deployment, management, and guidance for all perimeter security systems and regulator and compliance-based auditory processes.

Sensemaking. Leadership can process the chaotic world in a meaningful and tangible way (Ancona, 2019). Sensemaking is an activity that is triggered by something in the environment that has changed in today's ever-changing world.

Strategic agility. This is the ability and capacity to remain competitive by providing innovation to a current system, a process, or business objectives in a fluid mindset to adjust quickly to market demands and remain competitive.

Transformative learning. This learning process operates between exploration and exploitation in a transitionary method to distinguish learning from a creativity perspective from replication-based learning. This learning can apply to other areas of the organization. Exploitative learning is a richer form of learning necessary in innovation, which is a tension between learning and performing in project teams (Garcias et al., 2015).

T-shaped skills. The skill sets of an individual represented by a depth of knowledge of a particular subject matter are represented by the T's vertical shaft. The horizontal T shaft represents the width or breadth of a person's knowledge. These individuals understand their depth and breadth of knowledge can combine with another member's knowledge to represent a whole (Huang et al., 2015).

Virtual communities of practice. These are members of NFI's and the contracted vendor's leadership and technical or nontechnical project employees.

Zone of proximal development. Vygotsky's development theory is defined as the distance between the actual understanding and the more advanced level of potential development that develops from social interactions with other individuals … essentially an area where a learner is able to work effectively, but only with support from more knowledgeable workers" (as cited in K. Clark, 2018, p. 181).

Chapter Summary

The comprehension of leadership behaviors, social structures and processes, and ACAP purpose in knowledge transfer will explain the current state of processes and practices NFI's leadership facilitates during an outsourcing endeavor. The development and definition of this study's problem and purpose helped form the core research and supporting questions. Organizational culture health is a valuable variable to understand for those responsible for outsourcing projects in terms of whether they feel positive or negative and the impact culture has on outsourcing outcomes. Leaders' cultural perspectives cannot be assumed as positive or healthy, and understanding the differences will provide insight from the collected data and analysis.

Chapter 2 of this research focuses on findings from published scholarly literature and other dependable texts. The literature review is divided into three main concepts: ACAP, social science learning concepts, and emerging digital leadership behaviors centered on improving organizational knowledge. Information technology outsourcing initiatives are complex and instrumental for organizational change. The literature examines the neuroscience related to individual learning mental models. Finally, in the literature review, I examine the potential of negative or unmanaged conflict and the implications on the project VCoP's members and project outcomes. The rationalization of the conceptual framework is detailed in Chapter 2 and fundamentally designed for understanding the complexities of organizational knowledge transfer.

Chapter 2: Literature Review

I sought to address the lack of consistency in the literature, creating the phenomenon of whether the combination of leadership competencies, learning, social structures, and knowledge transfer processes impact outsourcing engagements. The goals of lessening future vendor dependency, increasing the probability of project success, and facilitating organizational new external knowledge assimilation are problems facing NFI. The primary purpose of this study was to determine if NFI's outsourcing of technology projects using managed or implementation services had any positive effects on organizational knowledge transfer.

The literature review is subdivided into three significant sections centralizing on an ACAP theoretical model to understand the processes necessary for knowledge acquisition and transfer components from an external to an internal source. The first section regarding the conceptual model of ACAP explores these components: (a) characteristics of internal and external knowledge; (b) environmental conditions and incentives to foster ACAP; (c) aspects of learning relationships; (d) a firm's ability to utilize ACAP to recognize, assimilate the external knowledge, and exploit the external knowledge into organizational knowledge; (e) strategies to drive, understand, and assimilate knowledge; (f) characteristics of the organization's and individuals' mental models, structures, and processes; and finally, (g) the firm's performance based on knowledge outputs and commercial outputs form the newly acquired intellectual property.

The second section of the literature review focuses on social learning interaction importance related to collective intelligence and the shared mental model stemming from an individual cognition and thought processing ability to learn. The third section of the literature review explores emerging digital age leadership components related to leading organizational

change by centering on digital age leadership competency and leadership behaviors and, finally, leading through conflict in teams. The literature review concludes with a summary of the limitations of the lack of research consistency using an ACAP model, digital leadership mindsets, and the social constructs of leading organizational change in information technology outsourcing vendor engagements and the impact on organizational knowledge transformation.

The need for a conceptual framework for this study resulted from the review of ACAP literature and the lack of agreement on the mechanism of a firm responsible for translating external knowledge for organizational benefit. After reviewing the literature on many known and respected ACAP models, I found social implications and digital leadership behaviors are critical components in the execution of the ACAP model (Lane et al., 2006; Ready et al., 2020; Ringberg & Reihlen, 2008; Stulova & Rungi, 2017). ACAP has been mainly researched from an outcome perspective or an independent, dependent, or mediator variable (Ali et al., n.d.). However, ACAP's original premise was from a perspective by which a firm would invest in research and development (R&D) and the by-product would increase an organization's ACAP (Cohen & Levinthal, 1990).

Some researchers view ACAP as a multidimensional construct that utilizes organizational structures, objectives, and a firm's strategies to increase overall organizational knowledge (Cepeda-Carrion et al., 2016). However, according to Jansen et al. (2005), organizational antecedents have the potential of having differing influences on ACAP's performance outcomes. The inclusion of leadership and social structures within organizations is depicted in the ACAP models and mentioned in all literature as a critical component. The social sciences and digital leadership components, recognized due to their many inferences or implied meaning, are

included in the literature review for a more in-depth analysis of their potential influence on ACAP outcomes.

Conceptual Framework Discussion

The need for a conceptual framework originated after recognizing the importance social sciences and modern digital leadership principles have in leading today's diverse virtual team structures. The importance of understanding the implications of collaboration, collective intelligence, mental models, and cognitive distance affects social interactions and knowledge transformation within the ACAP model. Lane et al. (2006) analyzed 289 absorptive capacity papers from 14 journals to fully understand the construct and significant contributions of field research. The ACAP model presented by Lane et al. (2006) was selected primarily due to the researchers' reification reconciliation work concerning the original Cohen and Levinthal (1990) model and their vision of ACAP's position in preparing an organization for the future with a process mindset model of ACAP.

Lane et al.'s (2006) reconceptualized model was dedicated to understanding past research (Cohen & Levinthal, 1990; Lane & Lubatkin, 1998, as cited in Lane et al., 2006; Szulanski, 1996; Van Den Bosch et al., 1999; Zahra & George, 2002) and emerged with a construct exploring the possibilities future relationships could have on acquiring external knowledge and additional organizational benefits (Lane et al., 2006). The Lane et al. (2006) ACAP model focuses on process-centric workflows to interact with external and internal environments to utilize an iterative feedback approach to improve outcomes. These ACAP environmental interactions can increase organizational knowledge and provide spillover effects that can benefit innovation and process improvements, which are examined in this research. As knowledge transformation is central to the ACAP process model, understanding the individual's learning

capabilities and characteristics by examining the importance of social sciences plays a vital role in the ACAP model's knowledge exploitation process in increasing organizational knowledge. (Birasnav et al., 2019; Vygotsky, 1987).

The understanding of social science concepts this research utilizes—the social components from Vygotsky's (1987) sociocultural theory—is central to understanding an individual's group interaction tendencies. These concepts, paired with modern collective intelligence ideas and shared mental modeling, are an attempt to understand the mechanisms of social interactions in a vendor–client engagement. Concepts of social science focus on interactions between people, one of which is constructivism in sociocultural theory. This social construct draws on connections learners make through discovery, experimentation, and collaboration with others to engage in knowledge development (Vygotsky, 1987). These interaction components are critical in the ACAP model acquisition phase and assimilate and exploit the newly acquired knowledge from external sources. The criticality of understanding the digital age, conflict, and strategic leadership principles noted in the research plays a crucial role in the transformation necessary for innovation, quality, and increasing production desired through outsourcing engagements (Dahri et al., 2019).

Distributed workforces in outsourcing projects could benefit from digital-age leaders who are conflict competent to increase the probability of outsourcing project success (Ready et al., 2020). The concept of digital leadership is a newer leadership discipline in which there are limited research and information on the construct. However, MIT, Cognizant, and others (Ready et al., 2020; Sawy et al., 2016) have embarked on defining and understanding the leadership competencies needed for next-gen digital economy leaders. The core competencies fundamental to past leadership behaviors include the timeliness attributes of trust, honesty, integrity, and

inspiration; however, digital-era leadership incorporates the new concepts of four key mindsets: producer, investor, connector, and explorer (Ready et al., 2020). This new playbook of leadership behaviors focuses on continual learning, facilitating a climate so people operate in their strengths to achieve the enhanced outcomes their community, customers, organizations, and teammates demand (Ready et al., 2020; Robinson, 2019).

Leaders who understand technology are fueling the global economic expansion and the competition pressure on organizations to innovate and bring products to market quicker. The ability of leaders to deliver under these complex demands, along with generational changes of the current and future workforce, is fueling the need for adopting new digital leadership principles. This digital leadership mindset is recognized from ongoing research by Cognizant and MIT (Ready et al., 2020). This research (Ready et al., 2020) consisted of surveys of 4,394 global leaders from over 120 countries, 27 executive interviews, and focus groups from next-gen leaders worldwide. The data were compiled from over 500 pages of interview notes and submitted to a peer-reviewed process (Ready et al., 2020). This validation from leading research entities on the importance of attributes necessary in leading organizations goes hand in hand with the ACAP model and social constructs included in this research to improve outsourcing outcomes.

Absorptive Capacity Theory

There are many frameworks and methods researchers have examined along with ACAP theory to process and acquire knowledge from an external source to provide organizational benefits related to performance and innovation (Lane et al., 2006). Reification has threatened the validity of the ACAP model as researchers “focused on knowledge recognition and acquisition dimensions but have ignored the assimilation and exploitation dimensions … [which] threatens

the validity of the existing studies" (Lane et al., 2006, p. 854). Another critical aspect of the bias that has led to the necessity of performing the reification process is that the construct was primarily utilized mainly for R & D or knowledge acquisition, as the Lane et al. (2006) model focuses on a process-centric model. Researchers have failed to build a cohesive model built on the foundation of the seminal research (Cohen & Levinthal, 1990) of the construct, thus raising validity questions. Due to the exclusion or emphasis of other differing ACAP concepts from foundational intentions from Cohen and Levinthal's (1990) process components related to knowledge transfer, the model chosen was the Lane et al. (2006) model.

Furthermore, the selected ACAP model stresses the importance of recognizing the environmental conditions of the external knowledge sources and a firm's internal capacity to apply the assimilated information. Another critical component of the ACAP process model is the importance placed on the firm's comprehension of an organization's technical density preceding the need to solicit the appropriate external knowledge (Lane et al., 2006; Van Den Bosch et al., 1999). The ACAP model from Lane et al. (2006) includes the intent of the work from Cohen and Levinthal (1990) along with a new definition of ACAP:

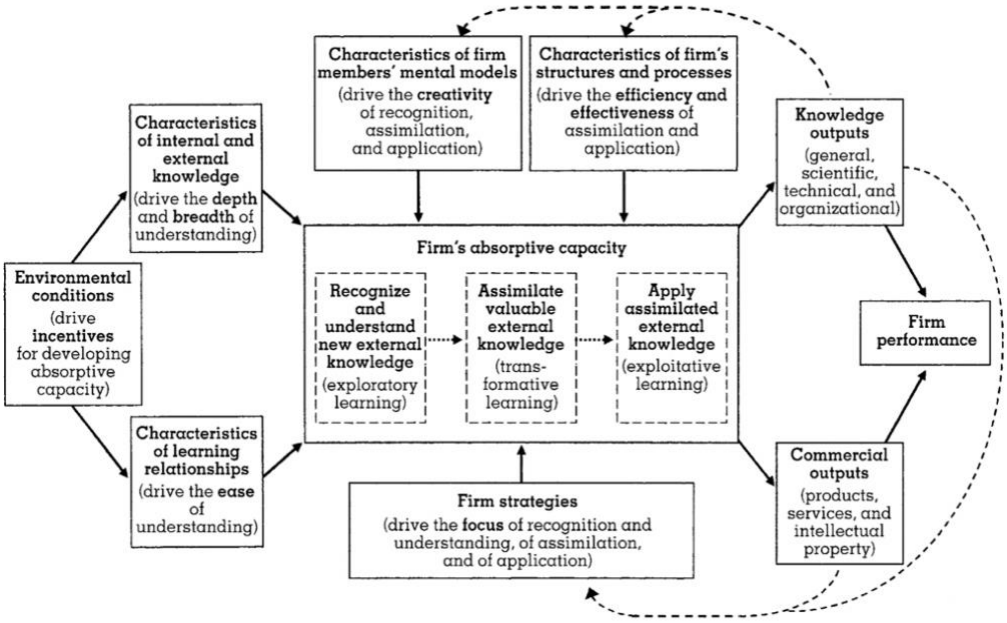
> Absorptive capacity is a firm's ability to utilize externally held knowledge through three sequential processes: (1) recognizing and understanding potentially valuable new knowledge outside the firm through exploratory learning, (2) assimilating valuable new knowledge through transformative learning, and (3) using the assimilated knowledge to create new knowledge and commercial outputs through exploitative learning. (Lane et al., 2006, p. 24)

The importance of this revised definition by Lane et al. (2006) is the process focused on ACAP model feedback components centered on social learning and knowledge acquisition and

the influencers on the firm's knowledge (see Figure 1). The model by Lane et al. (2006) considers the nature and importance of relationships and characteristics of external knowledge sources and environmental drivers, both internal and external, directing knowledge outcomes.

Figure 1

A Process Model of Absorptive Capacity

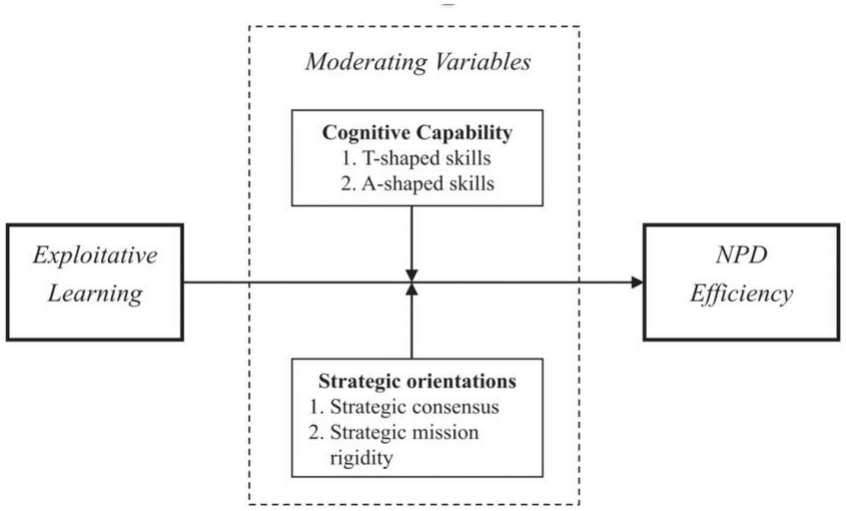


Note. The absorptive capacity reification model. Adapted from "The Reification of Absorptive Capacity: A Critical Review and Rejuvenation of the Construct," by P. J. Lane, B. R. Koka, and S. Pathak, 2006, *Academy of Management Review, 31*(4), p. 856 (https://doi.org/10.5465/AMR.2006.22527456). Copyright 2006 by Academy of Management Review. Adapted with permission.

This understanding of internal individuals' cognitive distance provides the critical decision data necessary to understand the knowledge that an organization needs to facilitate innovation and performance improvements from external sources. The internal knowledge source's cognitive skills, T-shaped and A-shaped (Huang et al., 2015), can understand the exploitative learning and the impact on innovation and product development (Figure 2).

Figure 2

Conceptual Model of Exploitative Learning in Teams



Note. Exploitative learning and moderating variables in project teams. Adapted from "Do Cognitive Capability and Strategic Orientations Act as Moderator Variables," by Y. C. Huang, R. Ma, & K. W. Lee, 2015, *International Journal of Project Management, 33*(4), p. 762 (https://doi.org/10.1016/j.ijproman.2014.10.004). Copyright 2015 by International Journal of Project Management. Adapted with permission.

Cohen and Levinthal (1990) built on prior research from Bower and Hilgard (1981) and Ellis and Estes (1965, as cited in Lane et al., 2006), which found an individual's foundational knowledge and the new knowledge "objective of learning" are critical to the individual's ability to exploit and assimilate the new knowledge. This prior understanding provided the foundation

for Cohen and Levinthal (1990) of the knowledge of which the sociocognitive interactions and level of agreement between individuals of the assimilated knowledge process are cumulative and a predictor of technological innovation and a firm's ability to exploit external knowledge. Furthermore, an individual's cognitive structure ability is recognized as foundational to foster a single-loop learning process, facilitating a firm's ability to utilize the newly acquired knowledge more efficiently than prior double-loop learning process assumptions (Lane et al., 2006).

External Environmental Drivers

Characteristics of Internal and External Knowledge Sources

As organizations desire to stay competitive through innovation, internal knowledge competency of the relevant, sought-after strategic information is vital in the exploration and, eventually, the exploitation phase of the ACAP model (Ferreras-Méndez et al., 2015; Lane et al., 2006). Lane et al. (2006) referenced internal knowledge drivers as being understudied in research. These organization knowledge drivers can be linked to formalized learning structures and processes and, in some cases, a firm's policies. Recommendations from Lane et al. (2006) are an organization's leaders be equipped with the necessary knowledge and understanding and apply behaviors essential to develop these critical knowledge concepts related to the ACAP process model.

Lane et al. (2006) recognized leaders' practices and awareness of these vital components of the ACAP model will also assist in the appropriate staffing competencies at each phase of the process (Lane et al., 2006). The organizational benefits realized could result in a potential increase in knowledge transfer capacity, and the integration of the acquired knowledge positively impacts organizational outcome potential (Lane et al., 2006). The importance of internal learning structures and processes in an ACAP model is the foundational starting point in recognizing

internal capabilities and the knowledge needed from external sources. Ferreras-Méndez et al. (2015) referred to this construct as the depth and breadth of an organization's internal and external knowledge capabilities and needs.

The internal knowledge and learning processes have been confusing to an extent from an ACAP and organizational learning (OL) perspective. The ACAP model of Lane et al. (2006) depicts OL and ACAP as an implied but dynamic processes related to learning. However, as a conceptual similarity to ACAP, Garvin (1993, as cited in Sun and Anderson, 2010) defined a *learning organization* as "an organization skilled in creating, acquiring, and transferring knowledge and modifying its behavior to reflect new knowledge and insights" (p. 2), which aligns to the strategy of the ACAP model.

Ultimately, the importance of a firm's development and understanding internally of its ACAP potential and processes is foundational for the organization to experience the ease of knowledge transfer from external sources. Many researchers have stressed ACAP is an antecedent to learning from external environments (Mowery et al., 1996; Reagans & McEvily, 2003; Szulanski, 1996). Ultimately, a firm's ability to execute and understand the learning processes related to ACAP will lead to an increased understanding of the internal individual's cognitive learning capabilities.

Learning processes and team leadership are critical components in developing internal and external learning and knowledge processing of exploratory information using the ACAP model toward achieving strategic goals (Huang et al., 2015). When individual cognitive capabilities are connected to the availability and capacity of internal and external sources of knowledge, creating meaning from the explored, new experience is enhanced. These cognitive capabilities are dependent on a person's depth "T-shaped" skills (vertical and breadth horizontal

parts of the “T”) and A-shaped leaders’ (professional and interpersonal) ability to consume and utilize knowledge from multiple sources skills, as depicted in Figure 2 (Huang et al., 2015). This ability for a team or an individual to seek the necessary strategic skills needed for innovation is referred to as possessing a depth and breadth of expertise and exploiting the newly acquired knowledge for organizational benefits (Ferreras-Méndez et al., 2015; Sun & Anderson, 2010). The importance of understanding, recognizing, and the ability to utilize the ACAP model in exploiting external knowledge from a depth and breadth perspective is a critical component for innovation and organizational outsourcing success (Ferreras-Méndez et al., 2015).

Teece stated, “No company possesses all technological resources” (1986, as cited in Ferreras-Méndez et al., 2015, p. 87) in research over 30 years ago. Teece’s statement has manifested in importance and relevancy in today’s hypercompetitive, technologically advanced global economy and the need for organizations to solicit external sources for knowledge. The difficulty, as Ferreras-Méndez et al. (2015) referenced, is the need of firms to understand the essential concepts of soliciting a breadth (number of external sources) and depth (extent of knowledge) to increase the potential for performance gains. Organizations that engage in external knowledge searches across multiple channels available to them will increase a firm’s awareness of the new technologies and markets by evaluating various sources (Ferreras-Méndez et al., 2015). Another critical benefit of performing a broad search of external sources for knowledge is an organization could utilize these multiple knowledge inputs for problem-solving, productivity increases, and development cycle improvements (Ferreras-Méndez et al., 2015; Lane et al., 2006).

Environmental Conditions

Lane et al. (2006) recommended a process-centric mindset in developing relationships with vendors, which can produce a depth of explorative learning as a critical component in navigating environmental challenges in vendor–client engagements. Laursen and Salter (2006) agreed with the research from Hansen (1999) that deep relationships developed between a vendor and client with the intent of increasing exploratory learning efficacy are dependent on the commonality of cognitive structures, skill sets, and a shared language, which are foundational in the development of deeper relationships. The cognitive structures are the mental processes vital in information processing and responsible for the organization of thought between individuals in a relationship, which increases comprehension and recall from memory (Vygotsky, 1987). These processes of developing similar cognitive structures (shared mental maps) developed over time within a culturally diverse project team environment are challenges in seeking external explorative knowledge understandable for clients in outsourcing engagements.

The need for diverse and decentralized team members to form a shared mental model representing the new information presented will assist by providing clarity and understanding of subject matter and facilitate goal formation among the group members (Aubé et al., 2018). Assisting in project work outsourcing engagements, a road map of the engagement expectations is defined generally by a statement of work (SOW) between the client and the vendor. The SOW describes the work costs, work to be accomplished, timelines, and engagement expectations. This defining of work begins the shared understanding of how a team of individuals' work expectations for performing the intricate project work comprising external and internal environments between the vendor–client organizations are one of the critical purposes of a SOW Aubé et al., 2018; Ferreras-Méndez et al., 2015). Along with the SOW, an organization will

require a master service agreement (MSA) between it and the client, which outlines expectations of warranties, travel costs, intellectual property, and dispute processes. These formal documents and approval processes are necessary environmental factors to protect both the client and the vendor during outsourcing projects. These documents need to be known and understood by the project team. The purpose of the project teams is to understand the contents of an SOW and MSA agreement between the vendor and client and develop a shared understanding of project deliverables.

Aubé et al. (2018) explored the concept of perception of whether shared understanding is fundamental in developing proactive behavior of team members, which continually assists the team in achieving performance and project goals. However, this proactive behavioral process can be minimized and rendered less effective in producing projected project outcomes if a team is unable to adapt to boundary conditions (Aubé & Rouseseau, 2016, as cited in Aubé et al., 2018; Tornau & Frese, 2013). The motivational and emotional components of proactive behaviors are vital in driving incentives in developing the external processes of the ACAP model. Proactive behavior is best defined as "self-directed and future-focused action in an organization in which the individual aims to bring about change, including a change to the situation" (Bindl & Parker, 2010, p. 568). These behaviors are future- (anticipation) and change-focused (take control), in which the individual takes the initiative in sensing events, both current and future (Bindl & Parker, 2010). These individual attributes within project team members are vital in understanding and adapting to outsourcing strategic change.

Organizations today embrace digitalization and employ individuals with cultural and thought diversity. Leaders and individuals are located in decentralized and virtual locations most often. The challenges of these conditions require everyone to intentionally assist in forming

relationships to ensure understanding of the explorative information and knowledge transfer to occur (Peñarroja et al., 2015). A vital aspect of external learning relationships is the ease at which knowledge is acquired and the effectiveness of knowledge acquisition from the external source. Leadership focuses on implementing the proper learning structures in facilitating this knowledge share, and transformative learning processes initially focused on developing relationships (Koohborfardhaghighi & Altmann, 2017). This newly acquired knowledge is the raw, valuable organizational resource that strengthens the organization's competitive advantage. In virtual teams, these individuals are critical problem-solving, decision-making information processors who facilitate the organization's strategic direction and contribute to the collective learning processes (Peñarroja et al., 2015).

Collective learning, or "team learning," is a process of social interactions among the team members who share information with the intent of assimilating this new information for increasing personal and organizational knowledge (Peñarroja et al., 2015). Learning in teams is an iterative process of feedback loops to integrate individual learning back into the team for discussion and collaboration. The relationships team members develop in collective learning interactions will enhance perspectives, increase problem-solving capabilities, and provide training and improved decision-making of new concepts in outsourcing new explorative knowledge to the client organization. By increasing the frequency of team member engagements for shared learning, research has positively impacted process improvements and results (Peñarroja et al., 2015). These interactions will provide diverse perspectives and thought and decision processes to assist in expanding current knowledge (Peñarroja et al., 2015).

The decision-making and processing of information within teams employ the dual-process model researchers have found (Chaiken & Trope, 1999). The dual-process model of

thought processing that an individual will use either from a heuristic "practical sense/past experiences" perspective or from a systematic "depth and detailed" perspective, helps examine aspects of a discussion topic more thoroughly (Chaiken & Trope, 1999). This diversity of thought is valuable for team interactions and knowledge elaboration to foster dialogue to make better decisions and increase the probability of the team reaching strategic goals (Peñarroja et al., 2015). In light of the importance of feedback for learning between team members and the fact that vendor–client team members will operate in a virtual team environment, trust is vital in developing relationships (Peñarroja et al., 2015; Rong et al., 2019).

Trust is a critical social behavior developed between team members and leadership to foster creativity and learning in the vendor-and-client engagement (Rong et al., 2019). Teo and Bhattacherjee (2014) viewed trust as vital due to necessary knowledge transfer processes and frequent formal and informal social interactions between team members of vendor and client teams. Trust from a social, behavioral perspective within teams is the ability of individuals to be vulnerable in interactions and encounter positive responses from others on the team (Teo & Bhattacherjee, 2014). Since individuals within project teams frequently collaborate to increase innovation and new product development, the ability to work through tensions from differing opinions or knowledge levels requires trusting team members will respond positively, and relationships will not be compromised.

Internal Organizational Drivers

Organizational Strategy

The philosophy of the Lane et al. (2006) ACAP model moves an organization from a structural perspective of ACAP to a dynamic perspective by focusing on structure, policies, and internal processes. The process-centric, structured, internal-focused model is a departure from

many ACAP models as the models tend to ignore the internal importance organizations need to understand the level of the influences and quality of external environmental explorative knowledge (Lane et al., 2006). A strategy is a firm's foundational component as a driver assisting in the decision-making process of the type of knowledge identified as necessary to accomplish the organization's strategic goals (Lane et al., 2006). However, many studies have failed to recognize the importance of forming strategy and strategic learning in a successful ACAP related process soliciting external knowledge.

The internal processes coupling formalized strategic planning and strategic learning processes are understudied. However, Sirén and Kohtamäki (2016) built on past studies and recognized a correlation between strategic planning and strategic learning, having a positive impact on organization performance. Organizational maturity in the development of competent processes in the adaptation of knowledge sharing, sensemaking, and development of organizational memory in the implementation of strategic plans is vital for a firm's strategy-process effectiveness (Sirén & Kohtamäki, 2016). A key to aligning strategic planning and strategic learning is pairing subject matter experts (SMEs) to the learning process (Sirén & Kohtamäki, 2016). This resource alignment assists in knowledge creation, recognition, understanding, and assimilation into the firm's ACAP process of knowledge exploitation for organizational benefits (Sirén & Kohtamäki, 2016). As project teams focus on innovation or new product development, strategic orientation is vital for aligning project resources (Huang et al., 2015).

The formation of project team members must be thoughtfully selected to ensure proper leadership and team members' alignment for effective team learning to occur (Huang et al., 2015). Leaders must have the technical and business acumen to understand the necessary skills

for functional expertise, along with interpersonal and team-building ability when selecting project team members (Huang et al., 2015). The cognitive capabilities of team members will assist in integrating diverse knowledge among team members and help to increase understanding of the particular subject matter (Akgün et al., 2007; M. Park et al., 2009). Furthering the concept of strategic orientation are the initial team normative expectations aligning to the overall goals and objectives of the strategic plan. These expected behaviors serve as motivation and provide team members clarity of processes and goals (Huang et al., 2015).

Finally, a firm's process strategy constructs in the ACAP model of Lane et al. (2006), takes into consideration as Huang et al. (2015) refer to as "strategic mission rigidity" and "strategic consensus" (p. 763), which can improve understanding by utilizing an interactive, dialogue-rich ACAP internal process model. These concepts are vital in guiding team members by setting guide rails for team members to operate concerning the project goals' strategic orientation (Huang et al., 2015). Mission rigidity is the narrow and inflexible aspect of the scope, as the name implies, to promote the project team members' focus with little room for deviation of the intended goal. Huang et al. (2015) proposed a high level of strategic mission rigidity will enhance the exploitative learning required in the ACAP model. Research has noted that deploying specific and well-defined strategic plans formed by rigorously defined business requirements and processes will drive knowledge exploitation and efficiencies by improving problem-solving skill sets and increase organizational knowledge (Huang et al., 2015).

Characteristics of the Firm's Mental Model

The individual and shared mental models of individual team members are an indicator of what information will be recognized, transformed, and assimilated by the ACAP of the organization (Lane et al., 2006). Mental models are the cognitive abilities comprising and

guiding the project teams and individuals during the innovative, creative, and problem-solving activities necessary to recognize new information critical for knowledge transformation (Casakin & Badke-Schaub, 2013; Cohen & Levinthal, 1990). The collaborative nature of project technology teams demands members to develop relationships that foster design creativity and understanding of the information discussed. The new information can be complex and pose questions of uncertainty by potentially facilitating discussions to deepen understanding among team members (Kim, 2019). Leaders must recognize the importance of the social interactions project teams engage in to facilitate innovation and creativity and recognize the conflict.

The social (team-related) interactions of members on project teams can involve people with differing skill levels and cognitive (task-related) responsibilities, which can interpret the information differently (Kim, 2019). These differing views can create conflict between team members due to emotional intelligence differences or biases held. Team members will interpret conflict in multiple ways; however, conflict can evolve into higher performance and increase knowledge transfer (Bradley et al., 2015). Conflict in this context is referred to as friction and disagreements during discussions and collaboration sessions with team members. However, competent conflict leaders and team members need to be aware of antagonistic behavior such as changes in voice tone, facial expression, threats, placation, and aggression, which are not examples of beneficial conflict. This type of conflict can destroy team collaborations and relationships (Bradley et al., 2015). As conflict occurs naturally during dynamic discussions of highly complicated subject matter among diverse team members, exploring new information during outsourcing projects must continue among diverse team members to increase an organization’s ACAP capability.

The process of exploration of new information and differing concepts during team collaboration sessions represented by individuals with diverse thoughts transcend an individual's cognitive capabilities and will assist an organization in the depth and breadth of new innovative knowledge (Casakin & Kreitler, 2008, 2010, as cited in Casakin & Badke-Schaub, 2013; Valkenburg & Dorst, 1998). The reality is that the complexity of technological projects comprises human resources from multiple disciplines and specialists of technology and business units supplying their knowledge to increase creativity (Casakin & Badke-Schaub, 2013). The evidence referenced by Casakin and Badke-Schaub (2013) provides that information exchanged among individuals with different experience backgrounds has a propensity to provide a broader view of the situation and increase creativity and problem-solving efficiency. When a team engages in collaboration processes that deliver creativity and innovations, mental models created are responsible for understanding, predicting, and assimilating new information (Casakin & Badke-Schaub, 2013).

The new information derived from team mental models forms new concepts and relationships between multiple complex frames of reference or designs (Casakin & Badke-Schaub, 2013). These new concepts help teams organize and categorize knowledge, derive problem-solving quicker, and increase organizational ACAP potential. Mental models support teams in viewing the tasks or problems to facilitate predictive behaviors or explanations of results or processes (Smulders, 2007). Within the external and internal environments facilitating a firm's ACAP model, mental models are interpretations of the information team members construct to understand the new knowledge and the implications of initiating change into the organization (Casakin & Badke-Schaub, 2013).

Finally, Casakin and Badke-Schaub (2013) stated the consequences of the ACAP model and the importance of mental models for creativity purposes as follows:

> Since individual members are owners of knowledge, skills, expertise, personal abilities, and goals, the way they understand reality can vary significantly compared to other members of the team. However, when team members interact with other members, they evolve and adapt their own mental models for the sake of constructing a mental model shared by the team. (p. 5)

In other words, the collaboration and socialization processes team members engage in during outsourcing projects, along with differing cognitive abilities of team members, will eventually result in a cohesive, team-shared mental model.

Characteristics of a Firm's Structures and Processes

The use of structures and processes internally developed within an organization will assist in the efficiency and effectiveness of assimilating and application of new knowledge. These structures are critical in the ability of a firm to apply the newly acquired knowledge in the execution of strategic initiatives to meet or exceed organizational goals (Lane et al., 2006). As Cohen and Levinthal (1990) warned, organizations are challenged with the potential failure to distribute the externally acquired knowledge to the organization's intended audience and the potential benefit of applying this knowledge by subunits of the business not to occur. For the process of knowledge transfer, assimilation, and application between the vendor and client, and then between the client to internal business units, communication structures must be developed.

Organizations are challenged in developing and implementing effective communication processes to assimilate and apply the newly acquired technical information delivered from outsourcing engagements. Cohen and Levinthal (1990) recommended two essential structures

relevant today as interfaces between external knowledge and internal knowledge audiences. There are two primary interfaces Cohen and Levinthal (1990) reference: The first is a person who has the intent and expertise to interpret external knowledge that would benefit the organization. The second interface results from the absence of an internal individual with the ability to interpret the needed external information. This dilemma would require a service outside the organization to act as gatekeepers or boundary-spanners to monitor and translate vital external knowledge for the organization to understand and utilize productively. Along with proper communication structures and processes, internal learning structures are vital for organizations to acquire new knowledge and achieve optimized knowledge transfer to all areas of the firm.

These processes are first "acquisition and assimilation" potential absorptive capacity (PABAC) and the "transformation and exploitations" realized absorptive capacity (RABAC; Zahra & George, 2002, as cited in Ali et al., n.d.). An organization's ability to utilize internal structures to facilitate moving from PABAC to RABAC is typically a multiphased activity (Ali et al., n.d.). The dynamic of strategic planning and influencers' perspectives within the formation of the multiple phases moving an organization from PABAC to RABAC requires leadership attuned to RABAC's environmental and human factors to be achieved for positive organizational benefits (Ali et al., n.d.). As noted by Lundvall (2006, as cited in Ali et al., n.d.), the processes that facilitate knowledge to innovation are characteristic of organizational adaptability. However, Nataraajan (2016, as cited in Ali et al., n.d.) "debates whether innovation leads to knowledge, or vice versa" (p. 109) as an alternative argument of knowledge influence on innovation, thus leading many researchers to conclude that structural processes are vital in both the PACAP and RACAP to increase organizational knowledge.

The organizational design focuses on researchers' fundamental theories promoting and providing the necessary components for ACAP (Ali et al., n.d.; Lane et al., 2006; Zahra & George, 2002). These structures focus on developing, transferring, and using the newly acquired knowledge from the external environment. A two-stage model suggested by Ali et al. (n.d.) provides the approach larger organizations utilize: the first stage, the PACAP, as the *initiation* stage and the RACAP as the *implementation* stage, linking ACAP and the structural variables. These dual stages have differing characteristics organizations must be aware of and facilitate processes allowing for execution to increase success probabilities. Many researchers' increasing consensus is that the initiation stage comprises "high complexity, low formalization, low centralization, and high integration facilitate the initiation phase. However, low complexity, high formalization, high centralization, and high integration facilitate the implementation stage" as the major components of these stages (Ali et al., n.d., p. 109). Finally, related to the structural components of ACAP, an organization utilizes a single-learning (same no clear division of work, same structure) or dual-learning (different structures, division of work) innovation model (Ali et al., n.d.).

Firms' Absorptive Capacity

Recognize and Understand New External Knowledge—Exploratory Learning

The ability of a firm to recognize and understand new external knowledge characterized in the ABAC model as "exploratory learning" (Cohen & Levinthal, 1990; Lane et al., 2006; Zahra & George, 2002). Exploratory learning in today's hypercompetitive markets has taken on the concept of "sensemaking" as firms try to stay innovative (Ngo, et al., 2019). This "sensemaking" intelligence and capability, from both a business and a technology perspective, will impact organizational performance. Sensemaking capability will allow for the alignment of

strategic plans to combine both current internal knowledge and external knowledge available and a means of exploring effectively to understand the potential usage of the knowledge (Ngo et al., 2019). The interorganizational social instruments have been studied for knowledge acquisition extensively (Briel et al., 2019); however, as Schwab (2015) acknowledged, the social integration instruments with external partners only received minor attention by researchers in outsourcing contexts. This is a critical concept for organizations in the search for external explorative knowledge searches with the intent of exploiting the knowledge.

Outsourcing for organizations today is a cost-effective means of traditional R & D. Internal resources have limited availability and expertise in exploration, thus making externally available knowledge cost-efficient, and the importance of collaboration with partners is a means of exposure to this valuable commodity, "knowledge" (Keupp & Gassmann, 2013; Spithoven et al., 2011). The cognitive distance between source organizational members and external members must maintain a level of familiarity for explorative knowledge to be realized (Enkel & Heil, 2014; Nooteboom et al., 2005). Nooteboom et al. (2005) indicated if the cognitive distance becomes large, exploratory knowledge opportunities will decease due to insufficient mutual understanding. The inverted-U concept (Cohen & Levinthal, 1990; Nooteboom et al., 2005) is an important concept leadership must comprehend in collaboration for seeking understanding and recognition of explorative knowledge with a heterogeneity alliance partner.

Organizations will benefit in seeking alliances in outsourcing technology projects for exploratory knowledge with interindustry partners (Filiou & Massini, n.d.). Nooteboom et al.'s (2005) seminal research and discovery of the cognitive distance technology construct with exploratory learning with external partners to increase the potential of understanding is vital for client organizations. Leaders aware of the skill sets and technological contents of the strategic

initiatives that are driving the outsourcing engagements will assist in ensuring the appropriate employees are on the project team. The cognitive ability of an employee to assist in the client organization's internal recognition and understanding processes of the new external information; is necessary for the next phase of assimilation of the new knowledge in the ACAP model.

Assimilation of Valuable External Knowledge—Transformational Learning

The organizational transformation of newly acquired external knowledge during the assimilation learning stage is a process by which organizations need to ensure the proper people and procedures are in place. The assimilation learning process relates to an organization's PACAP (Lane et al., 2006; Zahra & George, 2002). This potential of newly acquired knowledge transformation focuses on a firm's need for innovation and newly acquired technology components with the possibility of impacting strategic organizational goals if assimilated knowledge can be exploited (Lane et al., 2006). This transformation learning process's value propositions bring an organization the opportunity for knowledge acquisition by a larger audience that acquired the new external knowledge. This process also supplies feedback loops contributing to the expansion and learning processes, which can attribute to the decision-making process of exploiting this new knowledge quickly (Briel et al., 2019).

Mezirow's theory (as cited in Christie et al., 2015) is individuals will need to be equipped with the proper communication skills to assist others in the conversation, the internal battle, they might have due to previous biases. Providing clarity of communication is especially beneficial in the innovative world and bringing it into an organization. Individuals may have difficulties acquiring and understanding external knowledge might due to an improper cognitive distance displayed in their lack of ability in communicating with others the meaning of the external information. Assimilation and transformation of knowledge require the process to recognize the

geographical, cultural, and knowledge diversity of the intended audience, along with the context of the information presented (M. Clark & Wilson, n.d.). The critical content component recognized by additional researchers viewed this content as a Mezirow's theory flaw. The complex technical subject matter context is vital in the transformational learning process, validated by many leading researchers in the ACAP field (Cohen & Levinthal, 1990; Lane et al., 2006; Zahra & George, 2002).

Contextual knowledge transfer can result from a reflective mental process an individual may encounter to adjust their current mental models to learn further new information (Ringberg & Reihlen, 2008). Social team structure during the assimilation and transformation learning process can facilitate dialogue during collaboration sessions. These social collaborative processes and structures assist in transformational learning, guiding participants through conflict tensions due to team members' divergent mental models (Lane et al., 2006; Ringberg & Reihlen, 2008). These differing mental models can develop mutual comprehension of dissimilar subject matter from those in the discussions with specialized understanding and knowledge.

Application of Assimilated Knowledge—Exploitive Learning

The final process of the ACAP model is the organization process of RACAP, exploitive learning. This process is crucial for the firm's external knowledge acquisition for numerous financial investments in outsourcing, R & D of soliciting information/time of employees participating in the process, and other known organizational intent by requesting external knowledge for strategic purposes. Exploratory learning (PACAP) to an organization is the dynamic capacity of an organization with the potential of innovation as exploitative learning. (RACAP) is the realization of the new knowledge incorporated enhancing current and innovation strategic goals (Limaj & Bernroider, 2019). The current body of research recommends

organizations understand and develop the processes of RACAP to exploit internal knowledge and externally gained information from the PACAP processes, an outside-in approach to market and innovation intelligence (Limaj & Bernroider, 2019).

The outcome of an ambidextrous firm can balance exploration, and exploitation-based learning processes have proven in research to be a predictor of organizational success (Ngo et al., 2019). Known then as the ACAP model, the assimilated "transformative learning" has achieved the intended purpose by increasing organizational knowledge. Those in the RACAP process exhibit internally "current" expertise of the newly learned knowledge, have the shared mental models necessary to reinforce present and adapt to change, and can produce the necessary outputs required by the process (Huang et al., 2015). Huang et al. (2015) stated, "High strategic mission rigidity leads to clear product domains in which people can effectively conduct exploitative activities" (p. 764), which is a point of reference for leadership to ensure the proper staffing of internal resources is secured. Again, the shared mental model of participants in the exploitative process will help provide a high level of efficiency in the integration and utilization of the assimilated knowledge (Huang et al., 2015). The T-shaped skills of the participants with internal knowledge, coupled with the guidelines of a rigid and understood strategic plan, are vital in the exploitation process (Huang et al., 2015).

Cohen and Levinthal (1990) referenced an important exploitative capacity trait of an individual: the individual's ability to advocate for using the assimilated external knowledge into practical organizational learning. Cohen and Levinthal (1990) and Todorova and Durisin (2007) constructed an individual's ACAP as their ability to identify, assimilate, and exploit (use) the new external knowledge. An individual who exhibits a high level of ACAP cognition is motivated, engaged in interactions easily, and inquisitive (Volberda et al., 2010). Successful

exploitation of assimilated new knowledge is achieved individually by those individuals who are highly connected and can apply new knowledge to public knowledge and by those organizations allowing these individuals a high-level of autonomy to search for new knowledge (Enkel et al., n.d.).

Learning Constructs—Social Sciences

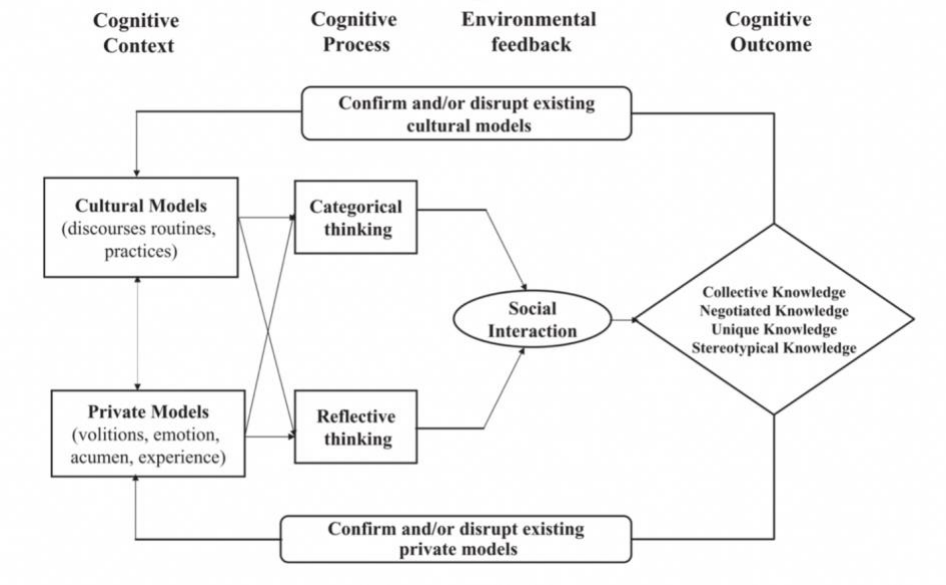
Social Cognitive Model

> Ringberg and Reihlen (2008) contended sociocognitive theory plays an intricate role of cultural and private mental models and how these are applied categorically and reflectively by the person in response to social-cultural feedback mechanisms, and subsequently, how this leads to (and explains) very different meaning (knowledge transfer) outcomes. (p. 919)

This perspective is vital in understanding the recursive model depicted in Figure 3. This model represents the cultural and private mental map implications of the interplay of cognitive context, social processes, and feedback necessary, which influence cognitive outcomes significant for organizational knowledge improvements.

Figure 3

Diagram of Cognitive Outcomes in the Knowledge Transfer Process



Note. Sociocognitive approach toward knowledge transfer. Adapted from "Towards a Socio-cognitive Approach to Knowledge Transfer," by T. Ringberg and M. Reihlen, 2008, *Journal of Management Studies*, *45*(5), p. 920 (https://doi.org/10.1111/j.1467-6486.2007.00757.x). Copyright 2008 by Journal of Management Studies. Adapted with permission.

This process and structure of social interactions between team members are representative of the importance of the role social sciences and cognitive models play to assist in developing schemata representative of the individual (private model) and the shared mental and cultural models (Piaget, 1977; Vygotsky, 1987).

Cognitive Context

The cultural models that comprise interfaces occurring during project team collaboration are a mix of individual interactions attempting to understand how a group senses and organizes their world (Ringberg & Reihlen, 2008). D'Andrade and Strauss (1992) understood interactions as "an interpretation which is frequent, well organized, memorable, which can be made from

minimal cues and contains one or more prototypic instantiations and is resistant to change" (p. 29). Project teams and internal team interactions during the transformation of new external knowledge require a cultural process and discourse of the information to understand the effectiveness. Cultural models are vital in the learning process of experimentation when teams and individuals are acquiring new knowledge (Ringberg & Reihlen, 2008).

Shared experiences by team members utilizing experimentation when exposed to new knowledge are social processes that assist in developing valuable dialogue patterns increasing understanding, which then can be shared with a larger audience. Social development theory (Vygotsky, 1987) is foundational to constructivism, and Vygotsky (1987) believed learners involved in social interactions with a "more knowledgeable other" assist in knowledge gains. This concept of experimentation by individuals involved in the ACAP process who understand the external knowledge, fit the category of a "more knowledgeable other" and will assist peers and others involved in developing deeper understanding (K. Clark, 2018, p. 181). Organizations that promote these cultural processes of pairing knowledge sources to those within a proper cognitive distance and zone of proximal development (ZPD) in social interactions will increase the probability of knowledge transfer to others within the organization (K. Clark, 2018; Ringberg & Reihlen, 2008).

Vygotsky's (1987) ZPD is an essential concept in which leadership should be cognizant about the learner's abilities within the project team and individually. ZPD philosophy focuses on the capacity a learner has in the learning processes, either an individual being unaided (inner circle, previous and current knowledge), the potential of the learner with guidance (middle circle, scaffolding), or the learner being unable to comprehend the knowledge (outer circle; Vygotsky, 1987). Understanding the acumen and experience levels of base knowledge of individuals is

critical in the cognitive context models to adapt learner styles and capabilities for knowledge transfer to occur of external new knowledge. A leader's knowledge of an associate's current level of knowledge and learning capabilities assists in outsourcing team member selection. This understanding can be a predictor of success. This predictor of success is related to the practical exploration of new knowledge acquisition due to the individual's private mental model capacity to comprehend and transform this new knowledge into usable organizational knowledge (K. Clark, 2018; Ringberg & Reihlen, 2008).

Cognitive Processes

The cognitive processes of the model take into consideration the categorical and reflective thinking constructs. These cognitive processes are related to the social interactions individuals engage in during the knowledge transfer process. First, categorical thinking has two main perspectives: The literature research has revealed categorical thinking can be valuable, essential, or dangerous. Categorical thinking can be a beneficial thought process in gaining insight into similar, related items (Ringberg & Reihlen, 2008). The thinking process can also assist those in memory and retention of innovations and increase comprehension by grouping concepts together. Categorical thinking has been described by Hoch and Deighton as an associated process of "cognitive conservatism" (1989, as cited in Ringberg & Reihlen, 2008, p. 922). From this perspective, innovation and new knowledge are necessary for outsourcing projects to be assimilated and exploited into the organization. The new information needs to be thoroughly discussed by leaders and team members during the knowledge transfer process.

Social cognition research has suggested people rely on categorical thinking in everyday routines they perform. These routines could stem from quick decisions of knowledge they have and during stressful interactions or as a person becomes distracted (Ringberg & Reihlen, 2008).

During information exchanges with team members, knowledge transfer occurs through social interactions; categorical thinking provides an effective means of recall of familiar stimulus dependent on a person's current mental model (Ringberg & Reihlen, 2008). This means of utilizing categorical thinking is problematic during new knowledge discussions when intended to be an innovative mechanism of the outsourcing technology engagement to increase organizational outcomes. The implications of using existing mental models will limit the multitude of inputs of new knowledge in complex outsourcing projects if an individual or group forces this new knowledge down existing mental paths (Ringberg & Reihlen, 2008).

One critical process aspect of categorical thinking is the mind must make sense of enormous amounts of data and structuring the information into meaning (de Langhe & Fernbach, 2019). This categorization processing in grouping data is beneficial if the data are valid and the categories are dissimilar in a meaningful way (de Langhe & Fernbach, 2019). This data grouping aspect is valuable in social interactions to draw on similarities of the new knowledge for learning. The process can lead to incremental learning of initial concepts due to perhaps project enhancements of the intended outsourcing strategy. However, transformative learning requires new mental models and innovation to achieve newly acquired external knowledge. A new mental model's benefits lead to the second aspect; researchers view categorical thinking as a dangerous thought process.

Researchers from the *Harvard Business Review* recently focused on four components: compression, amplification, discriminating, and fossilization (de Langhe & Fernbach, 2019). Compression in categorical thinking refers to limiting the variations that can exist within each category. The labeling of data occurs in categorization and compresses the information into limited groupings (de Langhe & Fernbach, 2019). Compression limits the existing variations,

thus constricting the meaningfulness of the information. This compression process could be highly detrimental in newly acquired data usage from a spillover context of the information's potential to be utilized outside of the intended target. The treating of knowledge "data" from a perspective of being "more alike" than in actuality can limit innovation (de Langhe & Fernbach, 2019; Ringberg & Reihlen, 2008). Amplification is the next dangerous categorical thinking concept that focuses on exaggerating differences of grouped data (de Langhe & Fernbach, 2019).

In social interactions, amplification could exclude exchanges between a person or group during the knowledge transfer process. The amplification dynamic internal to an organization during the knowledge transfer social process with interdependent teams can be troublesome for leaders as cross-organizational knowledge usage is vital for innovation and spillover (de Langhe & Fernbach, 2019). The challenge leaders face with amplification is amplification has implications on decision-making due to the potential of viewing slight differences of data in the discussion. If included in the discussion categorically, these slight differences of data place limited scope data with the potential of amplification, thus increasing the likelihood of impaired decision-making. A process correction would include others in dialogue with different mental maps and knowledge, thus limiting the potential of amplification of minor data (de Langhe & Fernbach, 2019). Once individuals or groups categorize information into structures, the tendency for discrimination to occur by favoring specific categories over another decreases (de Langhe & Fernbach, 2019).

The discrimination of information due to team members' categorization will limit the data pool to a specific strategic directive target by outsourcing teams. This data discrimination can have unintended consequences of limiting an additional organizational benefit of experiencing the spillover potential of an expanded data set for other organizational production

outputs. The distortion of data can occur by limiting to a category and excluding other external exploratory data (Ringberg & Reihlen, 2008). Understanding the ability of those in the data discussions to analyze the externally acquired data continuously can help minimize discrimination of categorized data. When individuals are intentional with data analysis, oversimplification can be avoided as we are all inclined to think categorically (de Langhe & Fernbach, 2019). This knowledge categorization leads to a fixed view of the world represented by the categorical data, resulting in a concept known as fossilization.

Fossilization of data is a single view of the data, rooted in a narrow world view—perhaps, an older view that limits innovation. Since innovation is the target of the majority of outsourcing initiatives and is based on strategic learning, inflexible mental mapping by individuals due to categorization will limit project and organizational success (de Langhe & Fernbach, 2019). The fossilization effect on data limits the dimensions of data by viewing data in a single dimension. A process of brainstorming can overcome the inflexibility of the fossilization effect. The brainstorming method encourages viewing data from a perspective of potential and exploring an individual's creativeness by encouraging creativity and innovation within teams (K. Clark, 2018). Along with brainstorming, the ability for groups to express and reflect upon the information presented will allow divergent thinking and adaptation of mental models.

Reflective thinking presents the opportunity of disrupting or confirming fixed private or cultural mental models during the socialization process (Kaski et al., 2019; Lane et al., 2006; Ringberg & Reihlen, 2008). Strategic outsourcing projects are a dynamic exchange of information within a social process for project teams. If a person can utilize categorical and reflective thinking processes, the cognitive load on the person to rationalize decisions and adapt more effectively by processing information, and not force new knowledge into a private mental

model, can be achieved (Ringberg & Reihlen, 2008). Reflective thinking is a process in which a person can sustain a high-level of engagement and cognitive processing with other individuals during collaboration.

Maintaining cognitive awareness is a method of improvement to a person's sensemaking ability by enabling creativity during the reflective thought process, comparing presented information to one's private models. These situational contexts are discussions within project teams when new information discussed can challenge personal and group life experiences and cultural models (Kaski et al., 2019; Ringberg & Reihlen, 2008). Collaborative mindsets enhance the reflective nature of discussions by creating a transforming learning experience. Transformational learning seminal research by Mezirow (as cited in Kaski et al., 2019) recognized during interactional dialogues, multiple perspectives of the information using the cognitive processes of individuals to increase the likelihood of an updated shared mental model are beneficial.

The capability of a project team to effectively interact for the purpose and presence to innovate and empower others during the reflective collaboration sessions will increase the probability of knowledge transfer (Kaski et al., 2019; Petriglieri, 2019). The external knowledge assimilation and transformation process of the PACAP frameworks reflective processes can positively impact the creative ability of individuals and teams. These PACAP processes are vital in transforming an individual's cultural and mental beliefs of the "new state" of the shared mental and cultural models by recognizing and understanding the newly gained organizational knowledge. This new state of consciousness creates the opportunity for not only the incremental learning of those with a lower cognitive distance but, more importantly, the transformational learning of those with a high level of cognitive distance. One purpose of the strategic plan of the

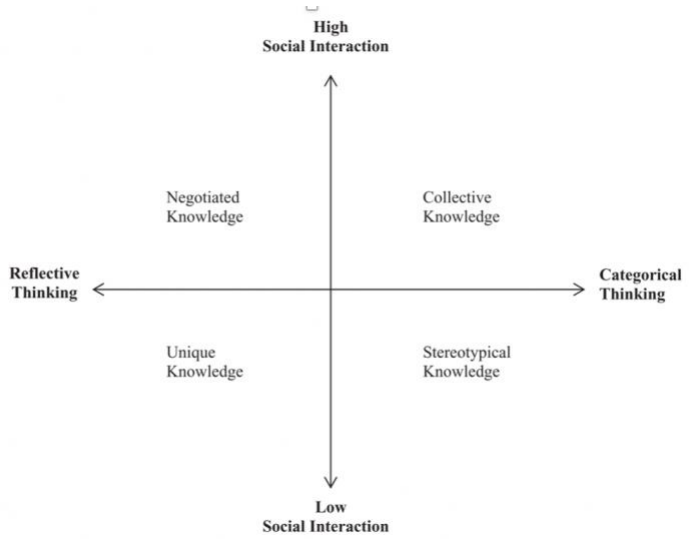
outsourcing engagement is the new level of competitive organizational capability due to knowledge increases (Kaski et al., 2019; Lane et al., 2006; Petriglieri, 2019; Ringberg & Reihlen, 2008).

Environmental Feedback and Cognitive Outcomes

The purpose of environmental feedback within social interactions is primarily designed in the Ringberg and Reihlen (2008) model to encourage high social interactions to improve organizational knowledge as a whole. Through social interactions, the ability to reflectively view private and cultural models and make adjustments as needed is a critical function of the social process. This environmental feedback perspective of Ringberg and Reihlen's (2008) model posits differences from the constructionist view. The constructionist view is from a categorical, reflective, and social process that produces feedback. These processes are more complicated than merely a shared constructionist social process of a shared reality and automatic knowledge transfer and not a reflective activity (see Figure 4).

Figure 4

Knowledge Transfer Model



Note. Diagram of categorical and reflective interactions. Adapted from "Towards a Socio-cognitive Approach to Knowledge Transfer," by T. Ringberg and M. Reihlen, 2008, *Journal of Management Studies*, *45*(5), p. 920 (https://doi.org/10.1111/j.1467-6486.2007.00757.x). Copyright 2008 by Journal of Management Studies. Adapted with permission.

With the varied mental models involved during social interactions, coupled with the four cognitive output potentials of collective, negotiated, unique, and stereotypical knowledge transfers, leaders must be conscious of the potential for conflict. The negotiated process in social interactions, in particular, is a dialogue that has the potential for such conflict to occur.

The negotiated dialogue knowledge process has individuals or groups engaged in a discussion attempting to resolve differences toward a common shared mental map (Ringberg & Reihlen, 2008). These divergent mental maps involved in the negotiated knowledge assimilation process, in many instances, are due to diverse technology and business disciplines in the discussion. Individuals bring private mental models to the discussion along with tacit knowledge resulting in either specialization or past experiences (Lane et al., 2006; Ringberg & Reihlen,

2008). These discussions, however, in outsourcing engagements during the PACAP internalization of knowledge are shared and needed to exploit the new external knowledge to benefit the firm's new cognitive outcome. Group and individual differences can result in dialectic tension if members are not conscious of recognizing potential conflict triggers and minimize them quickly, can become highly disruptive, and can limit knowledge transformation.

The high social interactions needed for beneficial cognitive outcomes in the Ringberg and Reihlen (2008) model require conflict awareness of participants in the dialogue. The organizational tasks and strategic results the project teams are responsible for, as Curşeu and Schruijer (2010) mentioned, are susceptible to task and relationship conflict. Diversity of thought and demographics are commonplace in project teams. This makeup of a heterogeneous group can be more sensitive to both tasks a relationship conflict due to a lack of trust (Curşeu & Schruijer, 2010). Interestingly, researchers have two lines of reasoning for team effectiveness: Either trust will assist in overcoming conflict, "which is the dominant logic," or conflict will negatively affect trust (Curşeu & Schruijer, 2010, p. 69). Researchers have also found homogenous groups tend to suffer fewer conflict types (Curşeu & Schruijer, 2010). Homogenous groups tend to share cultural models, like educational backgrounds and experiences (Ringberg & Reihlen, 2008).

Homogenetic groups recognize that negotiated knowledge aims to derive those participating in the dialogue a sense of collective knowledge or intelligence. Collective knowledge transfer requires high social activity and automated categorical thinking to be effective with group members. Collective knowledge transfer is a significant concept that differentiates this knowledge transfer process from the negotiated method (Ringberg & Reihlen, 2008). Those who utilize categorical thinking in groups tend to have less tension and, thus, fewer conflicts as individuals commonly are involved in high social repeatable processes. These

mechanical-like methods stem from similar cultural models, including a common language, as the group members typically arrive with similar conclusions (Ringberg & Reihlen, 2008). For organizations whose deliverables require a predictable outcome during outsourcing projects, the importance of continuity within the project team is vital. To ensure continuity, team members should share similar identities and have less diverse cultural models to deliver this consistent outcome. However, the downside to collective knowledge is a propensity for lower rates of spillover knowledge to different groups participating in the dialogue and less unique processing of information (Ringberg & Reihlen, 2008).

Project team group synergy of diverse individuals during collective knowledge activities allows groups to become highly effective at problem-solving and integrating new knowledge into the organization (Kaur & Shah, 2018). Furthermore, if individuals of the project team collective knowledge processes involve individuals with a diversity of thought and experiences, problem-solving abilities increase, and the overall collaboration capacity of the group increases (Kaur & Shah, 2018; Ringberg & Reihlen, 2008). During the collective knowledge social process, feedback loops of new knowledge challenge individuals' and groups' private and cultural models. These models, if adjusted, will increase organizational knowledge and productivity gains. (Kaur & Shah, 2018; Ringberg & Reihlen, 2008). The ability of collective knowledge-focused teams to display openness, aggregate information effectively, encourage each other's independence, and have the mindsets to discover and share new ideas will increase the collective knowledge process's effectiveness.

The unique knowledge process depicted in the Ringberg and Reihlen (2008) model is a person who engages in social interactions sparingly. The individuals who process the unique knowledge of private and cultural models exhibit a high degree of reflectivity. The construct of

unique knowledge processes offers minimal knowledge transfer to the organization (Ringberg & Reihlen, 2008). The knowledge these individuals have, in many instances, has been tapped by the organization as a specialization or pointed purpose. During specialized outsourcing engagements, these individuals can cherry-pick categorical knowledge and utilize a specific aspect of the information for purposes that could benefit the engagement (Ringberg & Reihlen, 2008). However, in today's organizations, this unique knowledge model is highly ineffective and utilized in rare cases when the individual is less eccentric and can socially interact to an extent (Ringberg & Reihlen, 2008).

External knowledge from outsourcing has a high probability that the knowledge is initially new or "unique" to an organization. From this perspective, the model discussed the cognitive outcome of unique expertise that would not benefit an organization as a deliverable. However, leadership awareness implications for recognizing knowledge "siloes" or "unique" isolated, nonsocial interactive individuals would need addressing to exploit this knowledge (Lane et al., 2006). From an outsourcing perspective, the goal to assimilate new external knowledge as the ACAP model from Lane et al. (2006) recognizes as a critical project goal. Those individuals require sufficient communicative skills to allow the gained information to exploit and assimilate into the organization.

The final cognitive knowledge outcome is the most undesirable type for transferring knowledge within an organization: stereotypical knowledge. Ringberg and Reihlen (2008) assessed this knowledge transfer method uses categorical thinking as nonreflective and highly routine based, which limits facilitation of organizational knowledge increases. Leaders of bureaucratic organizations tend to operate within the framework of specific expectations from a behavioral fixed-rules mentality. These significant limiting structures prohibit innovation and

creativity desirable in most organizations today and are a substantial contributor to outsourcing technology (Lane et al., 2006; Ringberg & Reihlen, 2008). These highly structured organizations limit or discourage private mental models and modifications to the accepted cultural models (Ringberg & Reihlen, 2008).

In today's highly competitive business climate, this stereotypical knowledge position has a propensity to view the world from a static perspective. We limit social interaction and disallow reflective thinking to process varied mental models in a collaborative, limiting feedback to cultural models (Ringberg & Reihlen, 2008). The narrowness of this knowledge process may lead to unintended consequences due to the lack of recognizing or ignoring contradictory feedback arguments linked to unfavorable outcomes.

Organizational Change—Digital Leadership

Digital leadership is an emerging concept in leadership development and competencies, demanding organizations prepare and develop leaders and technology workers for the new digital economy (Ready et al., 2020; Sawy et al., 2016; Scharmer, 2016). Digital leadership, however, is more than displayed behaviors; it is the development of competencies driving innovation, collaboration, continual development, and the skill sets needed of the organization during the digital economy. Boomers, millennials, Gen Xers, and Generation Z are looking toward leaders who will help them understand and become part of its strategic purpose and direction (Robinson, 2019).

Digital leadership behavioral qualities in leading organizations during digital transformation include the timeless behavioral attributes of trustworthiness, humility, integrity, honesty, and the new digital transformative mindset of leaders. These timeless behaviors, incorporated with the new digital leadership mindset of creating producers, investors, connectors,

and explorers, will facilitate collaboration driving organizational and community transformational outcomes (Ready et al., 2020). Digital leaders' behaviors will provide inspiration and motivation to individuals and teams to be their best and embrace diversity and differences so all are unified on the vision and strategy (Ready et al., 2020; Sawy et al., 2016). Leaders who display empathy and genuineness for individuals' career and personal goals to assist them in overcoming obstacles by being viewed as a coach and mentor focused on continual develop will increase organizational innovation, engagement, and retainment of employees (Pendell, 2017; Ready et al., 2020; Sawy et al., 2016).

Digital Behaviors

Digitalization readiness efforts by the global leaders participating in the Ready et al. (2020) research showed 82% of organizations required competent digital leaders but only 40% believed their organization currently had programs and digital leaders in their pipeline. Digital collective leadership is one behavior not only critical for the social processes related to collective learning but, more importantly, building a leadership community (Ready et al., 2020). The leadership community concept that Ready et al. (2020) and his research reference is as follows:

> "Organizations need to completely rethink what they are about and what it means to lead," McCord says. "It's not about one person or even those only at the top. In today's world, everyone has to be a leader—we have to think of ourselves as members of a leadership community. It's not just something we talk about. It's who we are." (p. 11)

This collective leadership mindset development is a paradigm shift from most organizational leaders' behaviors in today's organizations and must become a competency in leading in the new digital economy by increasing employee engagement (Ready et al., 2020). Robinson (2019) referenced millennials' engagement and retainment needs and what Gen Xers

want in their employers. Statistically, 59% of millennials, 44% of Gen Xers, and 41% of boomers stressed the need to grow in their careers as necessary to select an employer (Robinson, 2019). This need for digital leaders to engage in continual learning and development of associates must be a leadership competency and priority. The need to develop employees' skill sets necessary in narrowing the cognitive distance gap regarding new external knowledge understanding for assimilation and exploitation to occur is necessary. The development of these skill sets necessary for organizational innovation and to stay competitive is crucial for survival in today's marketplace (Pendell, 2017; Ready et al., 2020; Sawy et al., 2016). Collectively, digital leaders assist in sensing "blind spots" in social interactions, vital in continual development by encouraging creativity and productive problem-solving dialogues; however, most organizations currently fail in possessing this competency (Ready et al., 2020; Scharmer, 2016).

The unpreparedness of organizations recognizing blind spots occurring as leaders are not as self-aware in the strategic, cultural, human capital, and personal areas in grasping the changes necessary to compete in the new digital economy (Ready et al., 2020). The competency of leaders to recognize and understand the internal knowledge lacking contribute to strategic blind spots vital in initiating the need for technology or process outsourcing. This lack of sensemaking due to less-than-acceptable ZPD capability differences or large cognitive distances of internal resources of current strategic needs must be a capability of digital leaders (Ready et al., 2020; Scharmer, 2016). For organizational survival and competitive innovation, sensemaking capabilities of digital leaders who can utilize the ACAP and cognitive processes necessary to exploit external technology knowledge from outsourcing projects will assist in closing internal knowledge gaps and achieve strategic goals (Lane et al., 2006; Ready et al., 2020; Scharmer, 2016).

The ability of organizations to avoid competency traps during digital transformation to achieve long- and short-term strategic goals can be challenging for most leaders. Digital leaders will need to embrace increasing individuals and firm capacity by facilitating creativity, continual learning, understanding risks, and flexible distribution of work, all components of cultural changes (Kane et al., 2018). Leaders will need to have the competency to develop strategic learning plans for their employees based upon sensemaking, as Scharmer's (2016) theory U discusses, leading with the future in mind. Leaders who can externally sensemake the deluge of information in a rapidly changing world to create valuable and tangible meaning can assist in the development of curiosity of those they lead (Ancona, 2019). Leaders must take this external content, foster collaboration, and facilitate learning connections to align to strategic goals, employees' cognitive distance, and aspirations of associates (Ancona, 2019).

Development of curriculum patterned after updated job descriptions depicting the future state of organizational technology skill needs, or industry-based drivers of skills, should be considered. Research led by Kane et al. (2018) surveyed individuals on how important and frequent skill development is to them: 90% reported skill development is needed yearly, as over 50% of the skill development is needed continuously. Of those surveyed, only 34% felt satisfied their organization was meeting their needs. Leaders should prioritize learning as a facilitating "coach," assisting associates in developing a monthly Agile development plan focused on learning goals and the tools necessary to accomplish the learning objective. The importance of leaders who design work plans of those who incorporate learned behaviors into their job routines will see advancements and reaffirming of new skills and increased organizational knowledge (Kane et al., 2018; Lane et al., 2006; Scharmer, 2016). Learning objectives can benefit a more

extensive group based on collective learning social settings where dialogue and experimentation can occur.

Benefiting from Conflict

However, the cultural changes necessary for leaders and organizations can cause tension and unhealthy conflict to develop internally (Ready et al., 2020; Scharmer, 2016). As Kane et al. (2018) mentioned in their research, older and established organizations mention having cultures by which employees look at past success as a barrier to change their cultural mindsets. This reluctance can develop tensions and potentially disrupt the cultural adaptability necessary due to process changes and outsourcing projects. One source of reluctance and tension leaders need to embrace in the digital economy is to engage with technologies such as blogs, wikis, and digital conversations with people (Ready et al., 2020). The point of engaging with executives "top-down" by using modern communication platforms to engage in conversation with employees is the accessibility desired by workforces today. These interactions with senior leaders using modern communication technologies will assist in engaging multigenerations who currently are in the workforce to discuss cultural initiative changes quickly. (Ready et al., 2020). Ease and transparency of communication are foundational in building trust and beginning the cultural changes necessary to move toward an organization's digital transformation (Kane et al., 2018; Ready et al., 2020). However, trust building is complex, can contain conflict implications, and requires competent conflict leaders.

A leader's ability to understand the benefits and ability to lead through healthy conflict and lessen tensions during digital transformation requires leaders to have the skills and training in conflict management (Bradley et al., 2015; Curşeu & Schruijer, 2010). Dialectic tensions will

arise due to cultural changes and high social interactions with diverse groups due to the necessity of collaboration (Bradley et al., 2015).

Inherently in organizations today, during outsourcing projects interdependent teams will be engaged often, and in many instances, new external knowledge will be challenging for many in the process of assimilation (Bradley et al., 2015; Lane et al., 2006). The importance of leaders and team members in the digital economy during workgroup sessions recognizes if the tension/conflict is relationship-based, task-based, or perhaps even social status-based (Bradley et al., 2015).

Relationship-based conflict, when recognized, is an unhealthy conflict, and leaders must have the ability to create space from others in the workgroup/project team to mediate this conflict in a manner independent from others (Bradley et al., 2015). Cloke and Goldsmith (2011) recognized that individuals will exhibit these five conflict responses toward themselves or opponents in a conflict: avoidance, accommodation, aggression, compromise, and collaboration. They went on to explain the importance of shifting the conflict culture to become "more conscious, responsible and oriented to learning and resolution, and collaboration," giving people a choice to focus subjectively on the person/people, or objectively on results, outcomes, or the goals (Cloke & Goldsmith, 2011, p. 19). Everyone involved in the conflict must ask themselves what they value in the relationship and their respective intended result. This perspective is critical in learning organizations whose leaders are focused on understanding the benefits of conflict independent of the type (task, relationship, social status) and enable the processes to invoke creativity in problem-solving and continuous improvement mindset (Cloke & Goldsmith, 2011).

Senge (as cited in Cloke & Goldsmith, 2011) stressed that organizations can reduce conflict by increasing the competency of leaders who can convey a shared vision, understand the mental model makeup of participants, and utilize a systems thinking model. Digital leaders engaged in outsourcing projects and processes to innovate using external environments to understand market changes have a commonality with ACAP and cognitive process models as the necessity of understanding the private mental models of their employees (Cloke & Goldsmith, 2011; Lane et al., 2006; Ringberg & Reihlen, 2008). The creativity required during the assimilation and collaboration phases of ACAP to support learning external knowledge depends on the understanding and adoption of individuals and organizations in the value of connecting conflict as part of the learning process if led effectively (Bradley et al., 2015; Cloke & Goldsmith, 2011; Lane et al., 2006).

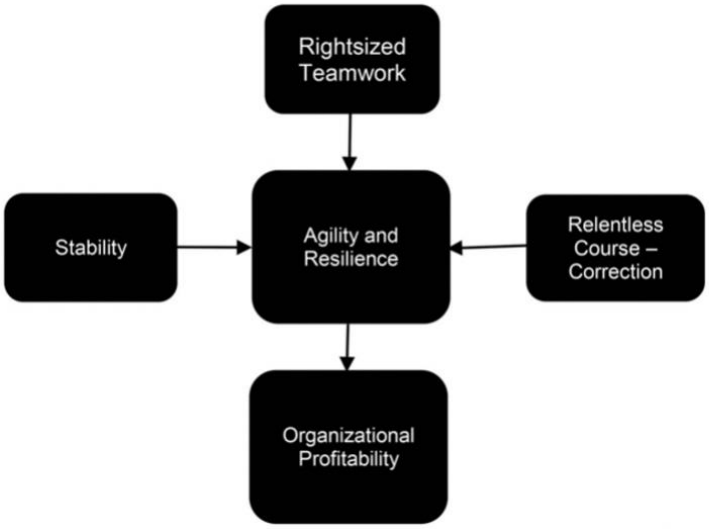
A behavior that is a critical component of emotional intelligence is being self-aware. The tendency to become engaged emotionally during technology conflict and to exercise the passive constructive behavior of delaying a response is a behavior that a mediator or leader during the conflict will need to have the capacity to exercise (Runde & Flanagan, 2013). Self-awareness is critical in allowing innovative discussions to occur by active listening to those in the conversation due to a personal tendency to undertake an emotional stake in technology solutions. The importance of allowing discussions to have a component of tension/conflict of emotions can be valuable in increasing organizational performance if the conflict is led and managed effectively (Pulakos et al., 2019). Other researchers recognized that having the ability to display emotional agility and resilience is a vital emotional competency digital leaders need to assist their followers in understanding and navigating conflict proficiently (Bradley et al., 2015; Cloke & Goldsmith, 2011; Runde & Flanagan, 2013).

Building Agility and Resilient Teams

The agility and resilience construct comprised three organizational characteristics from 325 companies, by which 114 were publicly traded organizations. These organizations noted an increase of 150% rate of investment (ROI) and 500% higher return on the rate of equity (ROE; Pulakos et al., 2019). These characteristics, which drove increased organizational output and quality, were "stability, right-sizing teamwork, and relentless course-correction … which served to mediate relationships" (see Figure 5; Pulakos et al., 2019, p. 305).

Figure 5

Organizational Agility Model



Note. Hypothesized model of organizational competitive success. Adapted from "What Leads to Organizational Agility: It's Not What You Think," E. D. Pulakos, T. Kantrowitz, and B. Schneider, 2019, *Consulting Psychology Journal: Practice and Research, 71*(4), p. 305 (https://doi.org/10.1037/cpb0000150). Copyright 2019 Consulting Psychology Journal. Adapted with permission.

One outstanding quality of digital leadership is to have the ability to direct and lead through disruptions in the hypercompetitive economy. These disruptions lead to outsourcing initiatives for new external organizational knowledge, which digital leaders must understand as vital to their organizational strategic plan. These leaders must determine team size, the cognitive distance of the members, and the ACAP process to follow (Bradley et al., 2015; Lane et al., 2006; Ringberg & Reihlen, 2008). The skill of agility demands leaders can create new knowledge quickly, learning agility, and ability to innovate and respond to ambiguous problems in a rapidly changing environment (Pulakos et al., 2019).

Conceptually, leaders today must be focused on teams rather than the individuals to become agile and change structures to increase collaboration, learning, and lessen the command-and-control hierarchies into a fluid and connected "social" environment (Pulakos et al., 2019). These structures will facilitate coordination of creating efficacies related to demanding shortened timeliness to deliver market solutions and innovations (Pulakos et al., 2019). These concepts of increasing frequency of delivery of innovation by effective outsourcing project structures within cross-functional teams is a digital leader's core competency. The inclusion of team members who exhibit personal agility, resilience, and practical collaboration abilities will help project success.

David and Congelton (2013) pointed to the fast-paced knowledge economy as a critical component of managing emotional agility to manage stress, reduce errors, and increase innovation and overall job performance. Steven C. Hayes, a University of Nevada psychologist (as cited in David & Congelton, 2013), utilized and created an adaptation from the Acceptance and Commitment Therapy (ACT) model. By recognizing these four key components, digital leaders can improve an associate's emotional agility, and those are "recognize your patterns;

label your thoughts and emotions; accept them; and act on your values" (David & Congelton, 2013, para. 7). These concepts have the potential to assist people in moving away from biases of their thoughts as they navigate through anxiety related to priorities or by ignoring or minimizing thoughts or perceptions held by others, which serve only as an amplifier of past negative emotions (David & Congelton, 2013).

Four Key Mindsets of Digital Leaders

Ready et al. (2020) recognized the four key mindsets they felt were necessary for preparing and leading an organization in the new digital economy: producers, investors, connectors, and explorers.

Reimaging is a process for organizations to embrace these mindsets to overcome current cultural, behavioral, and structural leadership methodologies. The cultivating of mindset changes necessary to motivate individuals toward a more customer-centric end state is based on understanding the digital systems necessary to drive data-driven decisions focused on rapid execution (Ready et al., 2020). These are competencies and behaviors that facilitate the producer mindset and will be required to develop a leadership community of individuals to execute innovation rapidly and increase the quality of products organizationally (Ready et al., 2020). Customers in the digital economy expect suppliers to think differently to deliver their products and services. These suppliers' customers utilize an agile methodology in delivering their stakeholders' constant appetite for cost-effective, on-time delivery of project goals. These stakeholders' deliverables are valuable for both the experiences and platforms of their audiences supporting their operations (Kane et al., 2018). As a customer-focused, higher-purposed-based organization, this investment mindset is due to the continuous improvement and development mindset necessary to obtain competitive advantages in the digital economy (Ready et al., 2020).

Today's leaders have demands to embrace community development and investments in those communities in which they operate (Ready et al., 2020; Robinson, 2019). Pendell (2017) noted a key initiative of leading millennials' and Gen Z's community involvement, which is a crucial engagement component these newer generations expect from an employer. This investor mindset is consistent with constructs of execution with improved ACAP (Lane et al., 2006) models. Also, Ringberg and Reihlen's (2008) cognitive models focused on continuous development within a reflective, vibrant, socially interactive, and innovative environment. Individuals within organizations today and internal and external customers expect a commitment to their strategic goals from a flexible, adaptable, and innovative partner (Ready et al., 2020; Scharmer, 2016). However, with this agility and fast-paced quality conscience delivery model, customers and employees are demanding a mission/purpose/shared values team environment with a strong sense of belonging (Pendell, 2017; Ready et al., 2020; Scharmer, 2016).

Theory U (Scharmer, 2016) focuses on the investor mindset of being an inspiration by cultivating an open mind, open heart, and free will for younger generations. Robinson (2019) also recommended the ability of leaders to develop this sense of openness, purpose, and organizational investment into their development to improve employee engagement. This openness can be beneficial as the need for individuals in organizations to collaborate across boundaries, mindsets, and cultures by being open, respectful, and reflective thinkers to adapt mental maps necessary in achieving strategic goals (David & Congelton, 2013; Kane et al., 2018; Pulakos et al., 2019; Ready et al., 2020). Finally, a vital component of the investor mindset is leaders' ability to focus on all levels of individual performers within the organization, not only on high performer development; it is critical to organizational success (Ready et al., 2020).

The connector leadership mindset is conceptually, and in reality, found in most individuals today of those participating in an organization's digital initiatives. The ability to collaborate with internal and external partners is required daily for most individuals to perform their job roles (Ready et al., 2020). The development of a person or an organization's network is vital to innovation from both a personal and organizational development standpoint. In the digital economy, the expectancy of diverse thought, individuals residing in separated localities, and short time frame deliverables all require a connected aligning of mindsets to bring together these diversities into a cohesive strategic and shared vision (Ready et al., 2020). The complexity driving most outsourcing and projects today requires the facilitation of collaboration utilizing the right resources from both a human and technological systems perspective (Nöhammer & Stichlberger, 2019; Ready et al., 2020).

Finally, the explorer mindset requires leaders to be highly flexible and open to change to facilitate curiosity and develop creativity within individuals (Ready et al., 2020). In today's innovative environments within the PACAP to deliver the organization's assimilated external knowledge as spillover knowledge and valuable strategic necessary knowledge, leaders need to engage individuals socially and collectively during reflective thinking sessions to develop creative thought to occur. The ability of leaders to allow this open dialogue, by using experimentation, will provide participating individuals the sense of community and belonging to develop the trust necessary for the freedom of expression in a safe and responsible environment (Ready et al., 2020).

Chapter Summary

The literature reviewed focused on the importance of ACAP principles and the conceptual theory model of Lane et al. (2006). This model was vital in understanding the

external environment, which is influential in obtaining explorative knowledge for innovation and achieving strategic learning objectives (Cohen & Levinthal, 1990). The process-centric model highlighted the need for digital leadership competencies to lead strategic innovation with virtual team outsourced partners (Filiou & Massini, n.d.). The need to understand internal processes and cognitive distance principles in selecting employees who will be part of the client team is critical for explorative knowledge to be understood and exploited (Nooteboom et al., 2005).

The information overwhelmingly spoke of the social sciences and Vygotsky's (1987) work in understanding mental models and mental processes that makeup individuals on teams (Wertsch & Tulviste, as cited in D'Andrade & Strauss, 1992). This understanding of individuals' social capabilities is critical in relationship formation during outsourcing engagements. Another vital concept of Vygotsky (1987) from the literature that could impact outsourcing initiatives is understanding an individual "zone of proximal development." The zone of proximal development is a social cognitive construct that would be beneficial for leaders to understand as a potential predictor of knowledge acquisition and transfer. Finally, social constructionist models provided the understanding of the shared reality, thought processes, feedback, and social interactions that are contained within complex knowledge transfer processes (Ringberg & Reihlen, 2008).

The concepts of digital leadership behaviors contributing to associate continual growth and focused on team collaboration will be explored in interviews with the technology leaders. Understanding how these leaders engage in, or have, team and individual development processes to align associates to their strategic goals is vital. Another question related to team and individual learning stems from how adequate the corporate LMS tools and processes are that facilitate the strategic learning curriculum. Understanding the leader's conflict competency, any training they

have had, or what conflict is shared were also explored during the interview. Finally, questions concerning trust development, how to inspire honesty, and conflict tensions during interactions with virtual team members were concepts and topics during the interview.

The major gaps in the literature were the understudied effects of four significant generations in today's workforce and the importance and role of competent conflict leadership within multigenerational teams. The multigenerational differences and the cultural implications of ethnic diversity common in IT project teams can generate conflict during project challenges. The difficulty of measuring the level of trust within virtual project team members and leadership was undefined and very noted as challenging to measure. Project teams interact with vendors most of their time within a virtual environment, primarily utilizing unified communication technologies. These interactions demand collaboration, sharing ideas, and differing levels of cognitive distance among project team members, which can generate dialectic tension necessary for innovation and various perspectives to be heard. However, these dialogues have the potential for conflict.

The study was centered on increasing understanding of the benefits of leadership behaviors related to digital leadership and leading generational diverse virtual teams through trust development and conflict. The research is significant in understanding the combination of a process-centric ACAP model, combined with the social sciences perspective related to cognitive mental mapping and process during collaboration necessary for diverse team members for knowledge transfer. Also, incorporating emerging digital leadership concepts and behaviors, the combination of using ACAP and understanding social sciences was not mentioned in the literature for leading virtual project teams through knowledge acquisition and exploitation.

Chapter 3: Research Method

The purpose of this study was to examine the gaps in NFI's current infrastructure and security department outsourcing initiatives relating to external knowledge transfer to usable organizational outputs. The gaps mentioned result from NFI's phenomenon of a complex internal and external infrastructure and security ecosystems rapidly changing due to a need for strategic agility and innovation (Karimi-Alaghehband & Rivard, 2019) including disruptive technologies. For these reasons, a social constructionism qualitative case study of infrastructure and security leaders at NFI was the population for this research. The social constructionism method allows the interviewee an opportunity to explain their world as they interpret their experiences with employees and outsourcers. The importance of following a case study protocol (CSP) was the framework for all phases of the research (Yin, 2018).

Research Design

The research choice of utilizing a qualitative case study method originated from a personal interest in understanding the impact NFI's information technology outsourcing (ITO) has on increasing internal knowledge and reducing future vendor dependency. Case study methodology allows the researcher to view a phenomenon from a social science, holistic, and real-world perspective, thus capturing the essence of the ITO lifecycle processes from an organizational, departmental, and individual leader's perspective (Yin, 2018). The data collected in this study were obtained from interviews with NFI's infrastructure leaders and their personal experiences in leading multi-million-dollar outsourcing initiatives for their respective areas of responsibility. The sharing of personal experiences during the interviews provided a richer set of data and meaning of the lifecycle of the technology outsourcing projects and the impacts ITO had on organizational knowledge.

Yin (2018) acknowledged that "every research method can be utilized for 'exploratory, descriptive, and explanatory based studies'" (p. 8). Yin's (2018) perspective guided the interview questions by enhancing probing questions related to the literature to gain meaningful insights and the essence of the phenomena of ITO's social process. The research questions focused on capturing both the how and why. Yin (2018) suggested favoring the explanatory case study methodology for the richness of dialogue and data captured. Elements of historical factors infused into the research and a prevalence perspective lens were utilized, along with the explanatory method in the form of a survey, to capture historical data from NFI's prior ITOs. These prior experiences and perceptions assisted in the data analysis by recognizing groups of data patterns that provided context related to the reviewed literature and any organizational ITO problems existing. The ability to recognize patterns of the processes and behaviors helped analyze similarities of success or failures of NFI's current state of ITO.

The case study was completed over a short time frame, not a year-long-based study designed to witness and document outsourcing projects from beginning to end empirically. This research focused on past and current outsourcing projects and existing processes to increase effectiveness from past challenges in outsourcing. I purposefully intended to provide the leadership with recommendations from literature and case studies relevant to the financial technology sector, if applicable. Yin (2018) provided an excellent synopsis of foundational research case study design planning—" *a logical plan for getting from here to there*, where *here* may be defined as the set of questions to be addressed, and *there* is some set of conclusions about these questions" (p. 26)—which guided my philosophy of interactions and intent of my research. Yin (2018) went on to depict the five essential components for a case study design:

- case study questions

- propositions
- case(s)
- logic linking the data to the propositions
- criteria for interpretation of the findings

The next aspect of design stemmed from an epistemology perspective to develop a more profound sense of the research data and processes' knowledge and justification. The epistemology method involves an empiricist perspective of being objective, seeking truths, and exploring seen and sensed data/experiences—all by following a scientific method (Shah & Corley, 2006). The lived experiences were explored by asking probing questions and analyzing the leaders' perspectives and their thoughts of the ITO projects' conceptualized and anticipated outcomes. These thoughts provided meaningful data of the impact on knowledge and effectiveness of the ITO engagement and lessons learned. One consideration was to utilize constructivism, which is vital to ensure objectivity in collecting and generating meaning, culture, and behaviors from a social perspective resultant from experiences (Crotty, 1998). Constructivism used in this design allowed for understanding the interviewed leader's knowledge of their ITO experiences. This constructed knowledge provided an understanding of the implications of the social, cultural, and knowledge gaps recognized in this research's literature and problem statement intent.

Finally, Easterby-Smith et al. (2002) provided these distinctive constructs differentiating quantitative versus qualitative research approach elements. These meanings provided clarity in constructing the instruments and understanding expectations from each phase of the research intent. These meanings and the extensive literature review of social sciences, digital leadership, and ACAP models were completed. Together, these concepts substantiated a need and desire to

pursue an understanding of whether NFI could improve outsourcing outcomes utilizing these five elements of methods. Sufficient data gathered in lengthy participant interviews captured data through a core question and five subquestions. Using a qualitative case study protocol and utilizing a constructionist perspective provided a conversational and semistructured interview process. This process presented an enriched data set of understanding a leader's perceived and realized outcome of the ITO projects.

Population and Setting

The case study's target population included one infrastructure IT managing director, five infrastructure IT directors, NFI's corporate security chief information security officer (CISO), one deputy security officer, and two security directors. These selected participants came from a pool of 35 potential candidates for participation in the study. All of the potential study population participants were sent an email outlining the high-level research overview, approximate time frames required from each to participate in the interview, and an initial survey assisting in candidate selection. Also, the goals of the research highlighted an overview of a case study dissertation process.

All of the study participants were located in the United States and resided in Lincoln, Nebraska; Madison, Wisconsin; or Denver, Colorado. The ability to utilize Webex video technologies during the interviewing process, coupled with the electronic sharing of documents, provided an extra dimension for understanding nonverbal communication and the ease of recording the sessions for later transcription and coding. These techniques ensured consistency in interviewing each participant and transcribing accuracy using Webex recorded session capability.

The population was appropriate to this case study as none of those interviewed from NFI's leadership who were solicited or selected were in the interviewer's direct reporting structure. All leaders possessed extensive years of experience in the technology industry and had participated in the vendor selection and awarding of managed service and outsourcing agreements for NFI. Those leaders selected had multiple managers reporting to them and collectively over 400 highly skilled technical associates in their reporting organizations. Leaders were also responsible for justifying executive leadership in pursuing strategic outsourcing initiatives.

Confidentiality and Preparation

The protection of human subjects participating in the research and the collected data was of the utmost importance and stressed by the researcher's IRB guidelines and training. Approval by the IRB was solicited and approved before the research was mandatory. All recommendations and modifications necessary were executed per the IRB guidance before any research. NFI's leadership approved all participants' proper consent to conduct this study before the research. The participants who met the criteria were provided a consent form for their approval to participate in the study in electronic format and archived by the researcher. All IRB form documents were completed by participants and me and archived in an encrypted folder on my computer before uploading to ACU's network.

Confidentiality was achieved to protect participants in the study by using code numbers for each interviewee. Preparation was completed in advance and arranged before the data collection and interviews to electronically store all historical documents provided by the participants on NFI's corporate network and not on the researcher's devices. All recorded data sessions were secured in a centralized NFI corporate file server and protected by the researcher's

corporate identity profile to ensure access is limited only by the researcher. Deleting documents and all interview recordings was done after 90 days of completion and defense of this research. The corporate data was expunged from all backed-up copies of the data. Before the interviews, the researcher's preparation was to formalize the interview process agenda and all preparatory readings and to understand the case study protocols. The research methodology was reviewed and rehearsed, and all documents to be used were organized.

Rationale for Selection of Participants

The general population's selection process involved an initial survey with these questions in understanding leadership experiences in previous or current outsourcing projects:

- length of time in a leadership position
- number and complexity of outsourcing engagements
- diversity of vendors experienced in prior commitments
- ongoing involvement with a managed service or outsourcing project
- importance of development of internal talent
- past or current talent development knowledge and processes
- willingness and approval of supplying past outsourcing documentation

The rationale behind the sampling population's selection criteria focused on the completeness of the target participants' initial responses. Next, in terms of importance, the participants' varied experiences, coupled with the individual leader's breadth of understanding of the outsourcing industry and strategic corporate direction, proved insightful and invaluable data. The study from related divisions that interact and engage daily in interdependent working relationships yielded similar results.

Study Sample

The purposive sampling method focused on the breadth and depth of experience in outsourcing engagements from a pool of 35 potential candidates. Another criterion was to ensure I adhered to the IRB guidelines. IRB training and certification completion before any research is mandatory.

One critical guideline originated because I was employed at NFI and had working relationships with the targeted population. However, to ensure the relationship between the interview/interviewee would not be in the line of direct/indirect supervision or the interviewer would not be able to impact the employment of the interviewee in any means, the selected interviewees were either superiors, in a separate organizational unit with NFI, or a peer of the researcher. Since there is a limited number within the primary population of directors and above in the NFI infrastructure and security departments, purposive sampling was chosen. The major disadvantage of purposive sampling is potential bias and errors in judgment, which can be attributed to low reliability and generalization of findings.

The selection of the epistemology constructionist methodology, which focuses on the knowledge and differences in justified beliefs and opinions, could differ from those interviewed by the mental models of their outsourcing experiences (Easterby-Smith et al., 2015). The thought behind using the social constructionist perspective is personal involvement in the organization and knowledge of the individuals participating in the study. The realization of the interviewer's working knowledge and current and prior relationships with the study population and potential bias were recognized, and caution was applied in eliminating subjective questioning, ensuring not to influence data.

Data Collection

The data collection processes center around a six-source framework (Yin, 2018). This framework comprises archival records of past outsourcing, semistructured interviews, direct observations, and finally, the inclusion of physical artifacts, which made up the supporting evidence (Yin, 2018). Also, Yin (2018) expressed the importance of including this data collection framework to align with the case study design parameters of "construct validity, internal validity, external validity, and reliability" (p. 112). The model is valid as all participants are employed within NFI and share similar technologies and system integrations.

The importance of obtaining archival records, documents, and literature review background information before the interview is the acquired information can present either corroborative information from the sources or produce contradictory information that will need to be clarified before or during the interview (Yin, 2018). The caution from Yin regarding corroboration in an interview is to ensure the prior data knowledge is not the focus of influencing or creating a bias, only to increase understanding before the meeting. The shorter interview process is conversational, so sensitivity to limit reflexivity will be necessary (Yin, 2018).

The short interview process format was utilized for engagement with the participants and the data retrieval process before the interviews. The interview duration was typically 1 hour to 1.5 hours in time length. The importance during the discussions of utilizing semistructured interview questions provided a richness of information from an exploratory perspective, allowing for the dialogue to increase data clarity (Easterby-Smith et al., 2015). These interviews were in the form of a web-based video conference; this allowed the interviewer and interviewee the unrestricted flow of dialogue without the cumbersome manual transcription process.

The recording of the interview ensured the accuracy of the interviewee's response while encoding the data to ensure accuracy. Although extended transcription will occur using a recorded method, fully engaging with the interviewee is critical to ensure dialogue produces quality responses. However, during the interviews, memory recall written notes were made to recognize a bias, assumption perhaps, or critical component to ensure special attention was made during playback and transcribing the recordings.

Instruments

This study's primary data collection instrument was a semistructured video interview centered on six topics of discussion containing 35 questions. Each discussion topic contained four to six questions and probing questions to gather detailed information on critical components related to the study's literature review and primary response. The interviews lasted approximately 1 hour to 1.5 hours per interviewee and utilized video web conferencing via Webex technology. Before the interviews, a survey was emailed to each potential candidate. Participants selected to participate in the study were chosen by their depth and breadth of current and prior outsourcing experiences. After notifying each selected participant via email, I reiterated at any time if they would like to withdraw and chose not to answer any of the questions asked during the interview; it was their choice.

IRB training was completed, and all the interview questions and protocols were followed. All correspondence, approvals, and surveys were conducted after IRB approval. The questionnaire was field-tested by a focus group of individuals diverse in infrastructure technology and leadership roles. These individuals provided feedback and insight into the relevance of questioning presented by their review. After this process, edits were made, and the

interview questions were reviewed and approved by the dissertation chair and committee. All of these inputs provided criteria for the final version of the interview questionnaire.

Field Notes

Field notes were not a primary source of recording data during the semistructured interview. These notes served to provide items of special attention of interest to the interview for later recall. The notes used the same notation to conceal the identities of the participant.

Data Analysis

The primary data sources were corporate documents, field notes, and recorded transcriptions from the videoconference interviews. As Yin (2018) reminded the qualitative researcher, "Unlike statistical analysis, there are few fixed formulas or cookbook recipes to use as guides … [It] depends on [one's] own style of rigorous empirical thinking," following a research protocol to provide the most accurate results (p. 101). The interviews were conducted via Webex videoconferences with the participants in their home offices or corporate offices. These participants were either located in Colorado, Nebraska, or Wisconsin.

The data were transcribed and analyzed first by using a strategy to focus on finding patterns, potential themes, consistent concepts, or leading to a more significant meaning (Yin, 2018). The usage of NVivo 12 software visually represented the data, provided an increased understanding, and helped create clarity and definition from the processes and data. The four general strategies Yin (2018) recommended assist in linking data to concepts were critical in this research's progression to assist in analyzing data:

- Relying on theocratical propositions—focus from the theory, which led to the case study, set objectives, design, and proposals that directed the formation of research questions.

- Development of a case description—may assist in explaining intricate data patterns "constructionist view."
- Examining plausible rival explanations—works in conjunction with all three of these concepts; description could be from other influences.

Finally, Yin (2018) recommended once a decision is reached on a strategy, there are five analytical techniques for case study research: pattern matching, explanation building, time series analysis, logic models, and cross care synthesis. These systematic strategies will help this case study explore the data concerning the objectives, research problem, and purpose of this study.

Data Analysis Procedures

The software for transcription was NVivo 12 software to assist in coding and categorizing the audio portion of the interviews. The sensitivity of the data collected in the interview was acknowledged, and steps to ensure data security and privacy were followed. I ensured that data security best practices were maintained. These steps included ensuring the encryption of the Webex connection and stored data files and that the participants' identities were masked from the stored data. The Webex transcribed files were loaded into the NVivo 12 software, which provided the ability to search and code the interview data. However, the software is a tool to assist in the coding/categorization process, and the researcher accomplishes the final analysis (Yin, 2018). Documents were provided by several participants, which were analyzed with the same rigor and coding as the recorded sessions and also stored in an encrypted, password-protected file location.

Yin (2018) warned researchers to ensure they have an analytical scheme to link study data to the study purpose and areas of interest. This warning prompted the strategy of "relying on theoretical propositions," reflecting the literature review and research questions prepared (Yin,

2018). With this strategy in mind, the case study is foundational in answering the how and why questions—the process of initially viewing the collected data performed to recognize any similarities, differences, and patterns. Since the data were from recorded interviews, this review was completed within a week of the interview. This data analysis was a form of manually coding before the induction of the NVivo 12 software passes.

Manual coding is a critical aspect and paramount in the analyzing process as software; in this case, NVivo 12 software provided theme matching, summarization, and data visualization. Manual coding initially provided themes, patterns, and similarities of responses from the participants. This manual first step provided the groundwork for the usage of the software tool. Due to the amount of qualitative interview data, coding provided points to the relevant contextual explanations recognized in the literature review and the purpose of the study. However, before any form of coding was done, I read through all the artifacts and transcripts Webex provided for output from each participant's data, then coding followed. The transcripts and recordings were validated for accuracy.

The analytical techniques utilized in data analysis primarily relied on pattern "theme" matching logic recognized in the literature review and foundational in question development. Also, Yin (2018) provided insight to warn researchers to be aware of the threat during the pattern-matching process to recognize rival explanations. As Yin (2018) reminded researchers executing a single-case study, the criterion for analyzing this threat is the rival evidence is inferior or "less acceptable" than the original proposition. Additionally, a logic model analysis (Yin, 2018) was utilized as a second pass of the coded data to build an explanation of the causal why or how implications of exploring external knowledge to become usable organizational knowledge as a process of interactions.

Methods for Establishing Trustworthiness

The qualitative research was performed using a semistructured interview process regarding the outsourcing experiences and objective questioning related to the literature review regarding knowledge transfer. These interviews were conducted in the same manner utilizing videoconferencing; the conferences were recorded for accuracy while coding with software for pattern matching to recognize themes (Yin, 2018). The first test of construct validity occurred during the participant interviews with technology leaders from technology disciplines who answered ACAP, digital leadership, and conflict competency questions. As Yin (2018) addressed, internal validity is the second test of the qualitative research process and is intended to seek a causal relationship between the degree of recognized ACAP, social learning structures, and digital-age leadership principles and the actual knowledge transfer.

A second pass over the transcribed data after the pattern-matching phase was the rival explanations pass. This second pass was critical in establishing the internal validity of items that were difficult to identify. The explanation of a prior event and whether the evidence "data" converges when events cannot be directly observed helps remove inferences in the data (Yin, 2018). External validity accounted for the question design and overall study purpose by answering the how and why of the leading topical questions. These topics led to detailed questions and probing questions with the intent to answer how and why the phenomenon occurred (Yin, 2018).

From a reliability perspective, validating the transcribed data, each participant was sent the transcript and verified the transcription's accuracy. As Yin (2018) recommended, a process was defined and followed during all data-gathering phases. This process included using the same interview protocol and identical procedures for providing the targeted population with a detailed

process of the research process. Detailed documentation of conversations occurred, assisting in creating an evidence chain (Yin, 2018). Finally, the use of proven, accepted case study protocols for gathering data and analysis was executed. Also, to ensure the case study's repeatability, the procedures and processes outlined provided the reliability necessary for good research design.

Researcher's Role

In this case study of NFI's infrastructure and security senior leaders, I was also employed as a senior leader in IT. I strived to be both subjective and objective from the lenses of personal knowledge of the organization and being the interviewer. From the perspective and reality, I never participated with any of the leaders in developing and participating in their project processes.

Ethical Considerations

The IRB training and certification were completed before the dissertation prospectus process. Once the chair and committee approved the prospectus, the prospectus's application and approval from the IRB were solicited and granted. This training and approval ensured human rights, privacy, dignity, and integrity of this study followed the strict IRB guidelines to protect all entities involved in the study. Before engaging with this study's targeted population, I sent the informed consent forms to seek permission of those who would provide data and participate in the study. The forms were then signed and completed by NFI leadership, granting their permission to engage those participating in the study. Next, the process of engaging and scheduling participants was completed before scheduling. Full disclosure of all aspects of the research, participants, processes, and researcher's role was discussed and agreed upon by all involved.

The following process was discussed and agreed on for the security of data, data storage, documentation, and the protection of those participating in anonymity. The realization of those agreeing to be part of this study was their time commitment. I took care to ensure scheduling of time with participants was done to respect their time and position at NFI. Finally, IRB training, the National Institutes of Health, and the Belmont Report provided guidelines to ensure ethical treatment and processes were followed in this study.

Limitations

I was an employee with NFI and realized the potential for personal bias. However, one aspect regarding employment with NFI is all outsourcing agreements and processes are both similar and, at times, very dissimilar. The process all leaders of NFI soliciting for a statement of work (SOW) is accomplished by first obtaining a request for information (RFI), secondly a Request for Proposal (RFP), then finally a SOW from the firm that was selected for the outsourcing agreement. The process progresses with the SOW passing a legal review, and the final steps are an asset management financial review, negotiation, acceptance, and signing by NFI and the outsourcing firm.

However, the differences, I feel, are the how and why this study's purpose and intent are striving to explain. NFI leadership's intent and process capability to solicit external knowledge from sources and incorporate it into usable organizational knowledge during outsourcing projects had no NFI standards or contractual notations contained in their SOWs. To take as many precautionary steps to ensure the integrity of the interview process concerning limiting bias, the participants validated the recording of sessions and transcribed sessions. Before the interview sessions proceeded, I validated that all the participants were aware of and accepted the purpose and process when they agreed to participate in the study. The consideration behind this limitation

was due to my current working relationships with the participants and employment at NFI. The goal was to accomplish transparency of all aspects and processes and address any questions or concerns individually before the agreement to participate. Finally, this case study involved a small population of technology senior leaders from a single organization. The findings and recommendations from this study are strictly from the perspective of NFI's organizational vantage.

Delimitations

The interview and data represented the thoughts, insights, opinions, and experiences of NFI's leadership. There was no associate-level individual contributor–based data to include and draw conclusions on outsourcing knowledge assimilation and utilizing organizational knowledge. This study's population and scope were from a single case study of infrastructure and security services areas technology leaders representing a national-based financial institute. Global consideration and financial industry were not in scope or represented in the study's findings. The study focused only on one aspect of outsourcing, which was acquiring external knowledge and the possibility and processes of increasing organizational knowledge. The research constructs were accomplished by utilizing a perspective of ACAP, social sciences, and digital leadership concepts that provided knowledge acquisition relevance; however, outsourcing has many facets and was out of scope for this study.

Assumptions

The questionnaire was not of a predefined origin; pretesting selected individuals approved the reliability and validity. The researcher's dissertation chair and the committee provided feedback. Included was the approval of all the questioning as a valid source of acquiring data related to the purpose and goals of this research. I assumed the interviews were

performed by and within NFI's cultural expectations in accepting this study's processes to be accomplished ethically. The implicit representation of data provided during the interviews and documentation from the participants was true and accurate to the best of their abilities. Furthermore, the instructions, purpose, scope, interview processes, and the study's intent were fully understood by all participants. Also, all questions were answered satisfactorily and clarified areas requiring further explanation.

Chapter Summary

The purpose of this chapter was to define and clarify the research methodology and design. The importance of defining the population, outlining the instruments guiding the studies interview processes, data processing, analysis constructs, and accounting for any security concerns of data and participants' identities was included. The inclusion of the study's ethical consideration and the IRB training and approval provided the framework and guardrails by which this study was conducted. The inclusion of the limitations, delimitations, and assumptions sections provided an expansion of view from my perspective to understand the importance of ensuring the participants understood the purpose and processes they agreed to participate, the trustworthiness of the processes, and that all of their concerns were addressed before the interview. This chapter's overall intent was to ensure the methodology processes were detailed and complete, the interview questions were defined, and the structures necessary to ensure the integrity of the study and results necessary for the next chapter were accomplished.

Chapter 4: Results

The purpose of utilizing a qualitative social constructionist case study was to develop a deeper understanding from a lived-experienced perspective of a group of 10 IT executives and senior leaders' technology outsourcing efficacy to utilize external knowledge for individual and organizational benefits. These organizational benefits included less dependency on vendors for innovation and their internal staff's ability to support and enhance the specific technology without vendor support. The importance of acquiring external vendor knowledge via an outsourcing project is the concept for NFI to gain the appropriate level of knowledge to provide their stakeholders increased ability to fully utilize a particular new product during the software/hardware life cycles. The approach utilized video conferencing in a semistructured interview process encompassing a meaningful dialogue over a 60-minute time frame. These veteran technology leaders provided in-depth insight into their average of 10-plus years of leading large outsourced and managed services contracts for infrastructure and security projects.

These insights from topical areas of the discussion centered on the following central research question: Could internal technical resources and organizational knowledge be increased by effectively deploying structured learning processes within outsourcing contracts? The interview findings were then transcribed, organized, compiled, and coded using multiple passes to derive themes.

Presentation of the Findings

The research participants were asked to provide their experiences centered around six topical areas; each topical area contained questions exploring relative aspects of the topic for deeper understanding. The questions centered around three main thematic areas of questioning derived from the literature review and research. These areas included digital leadership

competency, absorptive capacity–related processes for gathering external to useable internal knowledge, and the social and cultural concerns in structuring and managing technology outsourcing and managed service contracts. Topical subthemes emerged from the 10 participants' responses within each of the six central theme areas. Each of these six significant themes was discussed and summarized. Each central themed area contained the subthemes, which composed the formation of the central theme for each of the topical areas. Finally, within each theme was a table depicting the participants' responses, which assisted in forming the subthemes and, ultimately, the central theme of the topical area of questioning.

These six research questions guided the topical interview process:

RQ1: What is the main purpose for outsourcing to a third party (such as lack of internal knowledge, skill, or staff augmentation)?

RQ2: How effective is your team in acquiring and assimilating external knowledge to organizational knowledge from the vendor to client?

RQ3: How effective and prevalent are your team member social interactions and team dynamics?

RQ4: How well do NFI learning and management programs prepare technology workers?

RQ5: What are your leadership responsibilities and behaviors necessary to facilitate associate growth before, during, and after outsourcing engagements?

RQ6: How well do NFI's culture questions support outsourcing and learning objectives?

Participant Profiles

The participants in this research were employed with a financial services organization known as NFI. The leader's responsibility is for leading technology teams responsible for solutions, implementing, and operational duties of shared software, hardware, and security

services. These shared technology services provide for NFI's multiple companies servicing approximately 7,000 associates and business segment needs. The interviewed group of selected leaders were from a pool of 35 candidates. Chosen for the interview were two executive leaders and eight director-level leaders who oversaw an annual budget of $100 million and over 400 technology associates. As depicted in Table 1, these leaders had a minimum of 10 years in an expansive range of technology disciplines covering hardware, cloud, front- and back-office supportive services, network, security, storage, and operational responsibilities of data centers. These leaders interfaced with the highest level of executives in multiple organizations of the parent organization. Another critical function these leaders provided was board-level reporting and technology decision support and justification of technology spend and direction.

Table 1

Participant Profiles

Pseudonym	Technology	IT years of experience	Position
IDIR1	Infrastructure Services	20+	Executive
IDIR2	Infrastructure Services	20+	Director
IDIR3	Infrastructure Services	20+	Director
IDIR4	Infrastructure Services	15+	Director
IDIR5	Infrastructure Services	18	Director
IDIR6	Infrastructure Services	10	Director
SDIR1	Security Services	20+	Executive
SDIR2	Security Services	20+	Director
SDIR3	Security Services	15	Director
SDIR4	Security Services	15	Director

Major Themes and Subthemes

The data analysis depicted clear themes and subthemes to emerge from the interview questioning and responses from the 10 participating technology leaders. The six significant themes were derived from questioning, utilizing the six research questions as a guide. The six significant themes were followed, each individually, by their respective subthemes, and a summary table of those responses and percentages is included for each of the six subtheme groupings.

Theme 1: Organizational Challenges

NFI's outsourcing needs were foundationally necessary due to the lack of internal associate skill sets recognized by 90% of the interviewees as the main reason to outsource. Leaders agreed achieving the level of skills by internal associates is a challenge due to a lack of internal processes to bridge the knowledge gaps. The lack of formal contract language for knowledge transfer presents further challenges for NFI's need to increase internal skills for ongoing product business needs. Finally, cultural compatibility with the vendor was recognized as vital by the participants. However, vendor selection was difficult due to strict security contract requirements.

Subtheme 1: Skill Deficiencies. The respondents overwhelmingly recognized internal associate skill deficiencies as the number one reason to solicit external vendors to assist in implementing technology or a managed services contract due to organizational needs. One other notable response mentioned by leaders IDIR1 and IDIR5 was the need to solicit an outsourcing contract after addressing the skill gap deficiency; it was either for staff augmentation or an immediate business need for an expedited technology requirement. The follow-up dialogue with

the 90% of the leaders who answered skill deficiencies as the reason for outsourcing was if they held discussions with the vendors on knowledge transfer.

Subtheme 2: No Formalized Knowledge Transfer Processes. This subtheme addressed an effort to understand if the lack of internal associate technical skills were discussed in the vendor contract discussions about the subject of knowledge transfer. From this group of leaders, 70% of them stated knowledge transfer was discussed with the vendor.

However, in probing further with the knowledge transfer discussion between the vendor and the leader, there were no formalized processes or documentation as part of the signed contractual agreements. IDIR2 mentioned in his experiences in contract negotiations, he has included line items outlining the process of knowledge transfer. However, he did not state if there were specific documents, content, or details in the contracts. IDIR2 stated although knowledge transfer was a line item in the contract, the contract had no costs associated with the knowledge transfer work.

Subtheme 3: Vendor Reputation and References. The next subtheme in this topic area focused on the vendor selection criteria for selecting a vendor. Again, the overwhelming response of 80% of the participants recognized the vendor reputation in the industry and references from other organizational and product manufacturer recommendations having the most importance of vendor selection. The one outlier response from SDIR1 centered on developing a long-term relationship versus a once-and-done vendor relationship. Trust in the vendor adhering to the deliverables in the contract is vital to all respondents. SDIR1 recognized the vendor resources as a team extension and trust in the vendor selection of their project resources as necessary. One leader, IDIR1, did not participate in this question as he was not involved in the vendor selection process.

Subtheme 4: Culture Fit and Diversity of Vendor. Finally, culture was a central focus of discussion, and the vast majority of leaders, 90%, recognized cultural fit as one of the critical factors in the outsourcing vendor selection process. Respondents recognized a vendor's primary NFI culture requirements are those who can operate primarily during similar business hours to NFI, speak a common language, and utilize the same project management methods. As a few leaders mentioned, NFI is an organization based on trusting vendors and has a culture that is not persuaded by a flashy sales pitch type. IDIR1 mentioned contract restraints that pose citizen and security constraints and are vendor requirements in the contract selection process. The alignment, as IDIR4 mentioned, was to ensure the vendor can effectively address stakeholders' requirements and their importance in assuring adherence to project deliverables and costs. The diversity of ownership of the vendor's firm was recognized by 90% of the respondents due to a corporate initiative to solicit minority-owned firms. The summary of these subtheme responses are contained in Table 2.

Table 2

Responses to Topic 1 Questions

Topic 1 subtheme responses	Percentage of respondents
Skill gaps	90%
No formalized knowledge transfer processes	70%
Vendor reputation and references	80%
Cultural fit and diversity of vendor	90%

Theme 2: Process Deficiency

The lack of process was evident in the significant areas of questioning related to NFI's ability to solicit relevant external knowledge and assimilate acquired knowledge into organizational benefits. The critical areas recognized no formalized internally developed processes and structures addressing vendor transfer to client knowledge transfer. The majority of leaders agreed on the necessity for the development of structure and processes to focus on increasing the acquisition and assimilation of external sources of knowledge for organizational benefits.

Subtheme 1: No Structured or Formalized Process. All those interviewed viewed this topic as a vital and needed aspect in the outsourcing vendor–client interaction process; yet there are no formalized and standardized knowledge transfer processes in their departments. CSJC2 stated:

> This is not seen as a corporate standard; however, his teams work to adapt to a servicer/vendor and build processes. However, this is extremely difficult, and the quality of the transfer and quality of useable knowledge is questionable … tough to accomplish but does not know how to accomplish the knowledge transfer process development.

There were other responses from leaders supplementing their initial responses from their experiences as being either "ad hoc," "individual-based," or "feeble attempts" about any knowledge transfer by individuals on their teams.

Subtheme 2: Pairing Team Members Skills With Vendor Resources. A related subtheme emerged in follow-up questions related to pairing internal/external associates for strategic project learning and post-project knowledge sharing. Eighty percent of those responding to this question have never aligned resources to focus on project strategic learning. However, all

found this topic interesting and felt this concept would provide benefits in increasing organizational knowledge. There were informal processes noted by 50% of the leaders whose teams held “lunch and learns” and “videoconferences” where they witnessed those participating in the project by sharing their experiences and knowledge with others on their teams. All leaders noted most of their team members were social during interactions and either transactional or transformational in their delivery of knowledge sharing during noted ad hoc activities.

Subtheme 3: Inconsistent in the Ability to Transform Valuable External Knowledge Into Useable Internal Knowledge. The last subtheme emerged from the questioning where only 50% of leaders stated their team members who attend conferences or who have been in technical discussions with vendors or other external knowledge sources shared with any others on the team formally. IDIR6 provided additional clarity on activities surrounding supplemental sources of available external knowledge by providing valuable insight in regard to his experiences witnessed by individual behaviors: “We have many tools at our disposal, such as conferences, vendor training sites, and other sources. However, it is very individualized to acquire and share with others, and sometimes they hold on to knowledge purposefully.”

This subtheme proved valuable as the informality of processes regarding the knowledge acquisition and assimilation processes—independent of whether there were project-based, vendor-based training, conferences, or other external sources—limited knowledge sharing. The data revealed that individualized and sporadic learning, at best, was accomplished due to no formalized processes in place. These subtheme responses are summarized in Table 3.

Table 3

Responses to Topic 2 Questions

Topic 2 subtheme responses	Percentage of respondents
No structured or formalized process	100%
Pairing team members skills with vendor resources[a]	20%
Inconsistent in the ability to transform valuable external knowledge into useable internal knowledge	50%

[a] 100% of respondents felt this is critical.

Theme 3: Collaboration Processes

The participants agreed on the importance of social interactions of team members and the impact the dialogues had on innovation and the potential in changing internally held biases. The rapid increase of information is challenging the organization in understanding how effective their teams are at recognizing what information is most relevant for their respected teams and included in their collaborative sessions.

Subtheme 1: Leaders Are Responsible for Social Process Development. Leaders agreed social interactions were vital in challenging currently held mental models. Of the 90% of the respondents stating social interactions were a critical behavior with the potential to change currently held beliefs, only 50% of the leaders acknowledged their teams were influential in transforming team members' current mental models. These changes, IDIR4 and IDIR6 affirmed, would benefit product and systems innovation and be a catalyst in increasing organizational knowledge. All leaders confirmed the development of social processes is the leader's responsibility to structure, model, and encourage during collaborative sessions. However, 100%

of the leaders agreed this is an area in which improvement needs to occur on their respective teams to increase innovation by challenging currently held mental models.

Subtheme 2: Categorical Thought Processing of New Information. Leaders are concerned with the vast amount of information they, personally, and their team members encounter. Leaders questioned how effectively their teams process the new information. A significant information source is due to the rapid advancements in technology causing this new external information. Sixty percent of the leaders stated their teams categorized new information into currently held mental models and were below average in reflective thinking processes to change current team or organizational beliefs. IDIR5 provided a process-based response of his team's method of viewing and processing new information:

> The team is very good at introducing concepts and walking through a criterion to pursue those most agreed. They are focusing on a maturity model to move forward by creating a new model of thinking. Some on the team might immediately become biased due to how it's going to affect them. However, he calls out egos to focus on what the discussion/topic has to do for organizational benefits. He then said leadership would recite team core values and norms and the importance of continually adapting and changing.

SDIR4 witnessed in his team's discussion on the newly acquired information; some individuals amplified their position. To help the team overcome amplification, he would coach the team on removing biases and currently held beliefs to foster innovation and changing mindsets.

SDIR1 felt the ability of an associate to challenge mental models of others enough to influence change increased due to the experience and skill level the associate held. Leaders stressed, however, their nonoperational teams tended to collaborate in social structures at a much higher frequency and capacity than their operational-focused teams. IDIR2 defined operational

teams as “task-based” and focused on ticketing queues and measured defined work, whereas their other teams focused on automation and project-based work.

Subtheme 3: Average Success at Brainstorming New Ideas. Brainstorming sessions are recognized by 80% of the leaders as a more “casual” form of social interactions geared toward free information flow. IDIR2 noted brainstorming sessions held weekly are responsible for excellent benefits in getting the “buy-in” for change. IDIR3 also felt brainstorming sessions provided the needed context that analytical people could utilize to challenge their own and others’ currently held beliefs. SDIR2 felt that brainstorming sessions provided a “creativity” session to develop solutions and challenged privately held mental models. However, 40% of the leaders felt their teams either never brainstormed frequently enough or discussions never progressed deeply enough into the topical area to challenge and change currently held models or biases.

Subtheme 4: A Culturally Safe Environment to Challenge Thoughts. Finally, cultural questions surrounding the safety team members felt around challenging the status quo of currently held beliefs in public discussions were explored. All leaders, except for one leader “who feels the culture is changing,” answered yes, the culture is safe to challenge thought respectively. IDIR1 provided an interesting insight as he stated, “For the most part, people have self-imposed barriers when there are multiple layers of leadership.” He explained further by saying, “When individuals are in discussions beyond two layers above their level in the organization, they tend to operate more cautiously in challenging the status quo.” Additionally, IDIR6 felt the longer a team member is on the team, the more he has witnessed challenging others in their opinions or thoughts. These subtheme responses are contained in Table 4.

Table 4

Responses to Topic 3 Questions

Topic 3 subtheme responses	Percentage of Respondents
Leaders are responsible for social process development	90%
Categorical thought processing of new information	60%
Average success at brainstorming new ideas	80%
A culturally safe environment to challenge thoughts	90%

Theme 4: Corporate Learning

The importance of providing a modern, structured continual learning platform and program was recognized as needed by everyone participating in the research. The current challenges NFI's internal learning and management systems face for technology training are due to utilizing dated computer-based training environments instead of the newer gamification training platforms.

Subtheme 1: Ineffectiveness of LMS for Technical Training. Overall, 100% of the leaders recognized current LMS tools and systems from their team experiences were minimally effective. The LMS tools and processes were overwhelmingly noted as ineffective in preparing associates with strategic learning information of emerging and advanced technical training by 100% of the leaders. IDIR2 noted LMS's poor design, not built for technical training. IDIR2 and IDIR4 commented the technical training mostly comprised computer-based training (CBT) and provided a limited engaging experience for their associates. SDIR1 felt the LMS training was behind the times and very CBT orientated, whereas gamification would be a better alternative or approach for his teams.

Subtheme 2: Gamification Usage. Gamification was a technology SDIR1 and his organization acquired independently from the LMS department oversight. Their department acquired the gamification training platform leaders and associates conveyed challenged their current skills. Leaders also witnessed the benefits of the gamification platform by allowing experimental scenarios to discover alternatives to current models of thought in exploring solutions to current technical problems. Their associates' engagement and ability to experiment using creative means were noted as a catalyst for adoption. Apart from the experimental and creative components of the gamification platform, SDIR4 felt the product was advanced in providing emergent technology components in the learning platform.

Subtheme 3: Lack of Depth and Breadth of New Technology Advancements. IDIR4 noted they utilize the pairing of junior and senior associates to facilitate the training of current job needs. However, 100% of the leaders stated there are no standardized development programs, formalized coaching strategies, or mentoring programs to increase the skills of technology workers for their continual learning endeavors in the LMS offerings. When asked if the LMS tools currently offered to technology workers could provide the depth and breadth of learning new technology advancements, 100% of the leaders replied LMS tools do not effectively address this concept. An associate skills assessment capability was present in one product used by 20% of leadership teams.

Subtheme 4: Leaders Had Input Into LMS Technology Offerings. Since this lack of adoption and processes in the LMS offerings, the final question centered on whether LMS leadership engages with technology leaders to discuss this problem. Only 20% of the leaders stated they were involved in a yearly forum to review content and new content. This concern was

recognized by 80% of respondents, who had no voice and input into the strategy and direction of learning needs. These subtheme responses are contained in Table 5.

Table 5

Responses to Topic 4 Questions

Topic 4 subthemed responses	Percentage of respondents
Ineffectiveness of LMS for technical training	100%
Gamification usage	30%
Lack depth and breadth of new technology advancements	100%
Leaders had input into LMS technology offerings	20%

Theme 5: Leadership Behaviors

The participants agreed with the need for their teams to prepare for the rapidly changing technology and customer expectation the future holds for them. Those questioned conveyed the strategic mindsets and processes necessary to meet aggressive timelines and communicate effectively to understand their associates. Leaders were also in agreement on changes essential in leading in the new digital economy, in which agility and resiliency will be vital for both leaders and associates navigating constant change. One area of interest that provided rich dialogue was acknowledging healthy levels of conflict on delivering innovation.

Subtheme 1: Completed Conflict Training. Leaders responded overwhelmingly 90% in completion of formal conflict training at either NFI or a previous employer. All leaders responded they had prioritized discussing the role of positive handling of the conflict with team members in their interactions with others and the importance of increasing innovation. Probing further within the discussion of conflict questioning, I found that 40% of the leaders had seen

friction in discussions. However, only 20% of leaders stated the conflict was aggressive and hostile. SDIR3 replied he models managing and navigating conflict intentionally from his previous experiences in supporting conflict within his teams, ensuring team and personal conflict is handled appropriately.

Subtheme 2: Preparation of Team for Strategic Initiatives. Responses from leaders on their approach to preparing their associates for strategic change initiatives showed that all leaders had a different approach to preparation. However, 60% of the leaders prepared some formalized strategic development process during a yearly or quarterly planning session. No leaders questioned focused strategic initiatives with any focused or targeted learning initiatives to accomplish the strategic plan. IDIR6 recognized communication concentrated on providing clarity of strategic direction and is stressed multiple times during the fiscal year. IDIR3 utilized one-on-one sessions with associates to deliver strategic updates to provide clarity and assist in managing expectations. A probing question was asked if they were aware their teams had a shared understanding of the strategic plan, of which 80% of leaders responded their associates understood their departmental strategic plans. SDIR3 felt those who failed to understand the strategic plan were either failing to retain the information or unsure of the information in the strategic plan discussion and did not follow-up with questioning for clarification.

Subtheme 3: Teams Demonstrated Agility and Resiliency. Resiliency was recognized as a team behavioral trait by 100% of the leaders, whereas only 50% of the leaders could provide an example of their teams either being agile or having some agile-based processes incorporated into their team norms. IDIR2 provided reasoning that resilient team behavior was due to NFI's entrepreneurial and acquisition mindset of adapting quickly to market opportunities. IDIR1 provided a pandemic-based response for agility and resiliency "as we would not have survived

2020 without moving 6,500 associates to work at home and continued adaptation necessary in processes and implementation of new technology functionality throughout 2020."

Subtheme 4: Leading Well Through Disruption. Leading through disruption in 2020 and the past was recognized by 100% of the leaders as a strength. They agree on their leadership capability and years of experience to embrace the disruptions by focusing on processes and the scope of their team member roles in limiting organizational damages due to technical issues. Probing for clarification of damage control examples during disruptions, multiple leaders referenced the importance of providing clarity, frequency, and message content to associates and stakeholders as a critical process in leading through disruption.

Subtheme 5: Teams Centered on Customer-Centric Results. The customer-centric focus was a corporate cultural norm overwhelmingly agreed by 100% of the leaders and one that they all stressed to their teams as a vital support mindset. IDIR1, IDIR3, and IDIR6 recognized by their responses how the tactical focus of their teams at times impacted fulfilling customer needs. Their team's focus can be extremely tactically focused during implementation and upgrades, and during this time, their teams applied all emphasis on end state, not customer needs. All the leaders stated increasing emphasis on customer needs could improve customer experience. IDIR4 stated his team has accomplished improving the customer experience by soliciting customer feedback after implantation or technology changes.

Subtheme 6: Digital Leadership Mindsets Adopted. Finally, leaders were all presented with four digital mindsets and explanations of each of the mindset behaviors. The digital leadership producer mindset was the choice of 60% of the respondents. The previous questioning responses could predict the producer mindset from most respondents due to their emphasis on the tactical execution of operational and project teams. The connector was the choice mindset by

20% of those responding and referred to relationship building as one team behavior they coached and encouraged with teammates and customers. The final two digital mindsets of investor and explorer each received one response from a leader as an identified mindset. These subtheme responses are contained in Table 6.

Table 6

Responses to Topic 5 Questions

Topic 5 subthemed responses	Percentage of respondents
Completed conflict training	90%
Preparation of team for strategic initiatives	60%
Teams demonstrated agility and resiliency	70%
Leading well through disruption	100%
Teams centered on customer-centric results	100%
Digital leadership mindsets adopted	30%

Theme 6: Organizational Learning Culture

The participants agreed NFI's culture is fundamentally supportive from a financial perspective and witnessed by all corporately due to the continual expansion of their corporate learning department and product offerings. The corporate culture supports allowing differing opinions to be expressed respectively openly, which can help experimental learning and innovation. However, as positive, the leaders described NFI's culture with the descriptors "honest," "open," "entrepreneurial," and "associate acceptance of feedback for growth." There were notations of difficulties of associate adoption of continual learning noted. Overall, leaders estimated their associates' continual learning desire stood at 50%.

Subtheme 1: Team Culture of Desire for Continual Learning. Leadership sentiment was 90% positive when asked if NFI provides the learning financial support and overall continual learning support as a corporate value. The continual learning participation of team associates from a leadership perspective could be as high as 50%. The reasons noted for the low participation rate were the need for more mentoring, coaching, and leadership involvement. There is no developed curriculum or corporate policies on continual learning objectives or goals; continual learning is up to the individual. IDIR5 feels his area is maturing in continual learning development with a more formalized learning structure and adoption. IDIR5 stated he is starting to see increases in team adoption and desire for continual learning.

Subtheme 2: Positive Cultural Learning and Supporting Objectives. When asked to provide three positive aspects of NFI's culture, all leaders provided these common responses: "open," "honest," "entrepreneurial," "results orientated," and "valuing their associates." All those interviewed had no trouble answering this question quickly and with upbeat energy, as they all felt the culture supported corporate objectives, associates, community, and customers well. There were no negative aspects of the culture when the probing question was asked regarding if they felt the culture had harmful components.

Subtheme 3: Culturally Allowing for Disagreements. Overwhelmingly, 100% of the leaders participating acknowledged NFI's culture allows for dialogues with differing opinions to occur. SDIR1 commented he had witnessed from a macro perspective of NFI the ability to embrace and comfort in providing differing opinions was not always met with approval. IDIR3 also mentioned he had seen, on rare occurrences, a limited number of individuals as not fostering differing opinions, but overall he responded to the original question as a yes.

Subtheme 4: Ability of Associates to Accept and Process Feedback Well. Finally, 80% of those questioned felt their associates accepted performance feedback constructively on average. One perspective from SDIR4 provided a depth of explanation:

> Generally, feedback is reasonably well accepted because many aspects are personality driven. I consider the personality and how they take and receive feedback from prior experiences with the individual. As long as the feedback process is done fairly, all goes well. Once this does happen, assuming it is accepted and not challenged, his two teams do not challenge the feedback provided. I sometimes ask what they do not agree with; once done, it's accepted, and change is done relatively easily.

Leaders all responded NFI provides opportunities during one-on-one and quarterly four-by-four meetings to provide associate feedback targeted on growth opportunities and a chance to provide associate "kudos" also. The subtheme responses are contained in Table 7.

Table 7

Responses to Topic 6 Questions

Topic 6 subthemed responses	Percentage of respondents
Team culture of desire for continual learning	50%
Positive cultural learning and supporting objectives	100%
Culturally allowing for disagreements	100%
Ability of associates to accept and process feedback well	80%

Chapter Summary

This research focused on addressing the literature gap of whether internal technical resources and organizational knowledge can be increased by effectively deploying structured

learning processes before and within outsourcing contracts. Throughout literature, multiple studies addressed ineffective concepts of knowledge transfer methods that negatively impacted technical outsourcing projects. This research focused on understanding the reconceptualized ACAP model of Lane et al. (2006), conflicts role in learning of teams, social sciences for learning in groups/teams mental models, and the emerging digital leadership mindsets.

With this known, the purpose of this research was to utilize a qualitative case study of 10 information technology executives and senior leaders' lived experiences of their team's outsourcing knowledge acquisition processes. During outsourcing projects, I attempted to understand fundamentally NFI's processes and capabilities to absorb, assimilate, and exploit knowledge between the vendor and internal associates for organizational benefits. This chapter provided rich content of information derived from in-depth interviews of structured and probing questions. The data analysis aspect of the research involved transcribing the data, organizing the unstructured data into structured data groupings using multiple passes of the data with coding based upon common words, data visualization, and pattern matching; finally, six themes emerged from multiple topical subthemes.

These themes provided insight into the six research questions' topical areas aligned to the study's purpose and literature review. Participants recognized the lack of processes and formality with their organization's contractual process for knowledge transfer. The six major themes emerged depicting the complexity of the knowledge acquisition prioritization, organizational challenges, digital leadership behaviors, and corporate learning's involvement necessary for increasing organizational benefits of technology outsourcing. These organizational benefits are discussed in Chapter 5 along with recommendations and study findings answering the research questions.

Chapter 5: Discussion, Conclusions, and Recommendations

The literature emphasizes the importance of leadership responsibilities in all areas responsible for influencing the ACAP processes. A conceptual framework guided this study to understand the significant social interactions, digital leadership mindsets, and cognitive mental process models that impacted the reconceptualized ACAP process-centric model of Lane et al. (2006) on technology outsourcing knowledge acquisition. The purpose of this study was to understand NFI's infrastructure and security leaders' criteria used in the formation of their outsourcing and managed service contracts strategy and how effectively these criteria impacted knowledge transfer between the vendor and client.

These leaders' lived experiences provided rich data from a social constructionist vantage to understand the leadership group's approach to the structures and processes contributing to the success or failure of technology outsourcing projects at NFI. The six research questions below provided the guidance and content of the research questions to the problem, purpose, and literature of this study. These questions are listed in Appendix C and below:

RQ1: What is the main purpose for outsourcing to a third party (such as lack of internal knowledge, skill, or staff augmentation)?

RQ2: How effective is your team in acquiring and assimilating external knowledge to organizational knowledge from the vendor to client?

RQ3: How effective and prevalent are your team member social interactions and team dynamics?

RQ4: How well do NFI learning and management programs prepare technology workers?

RQ5: What are your leadership responsibilities and behaviors necessary to facilitate associate growth before, during, and after outsourcing engagements?

RQ6: How well do NFI's culture questions support outsourcing and learning objectives?

The purpose of this chapter is to discuss how the data and literature relate to the research questions, along with implications, recommendations, and areas of future research.

Discussion of the Findings

The findings support the literature on the importance of defined structured processes for knowledge transfer from external knowledge sources. Leaders agreed that processes need to be formalized and negotiated as part of their outsourcing contracts for effective knowledge transfer to occur. Their discussions with outsourcing vendors have centered primarily on project deliverables concerning business requirements, project goals, timelines, and, informally, knowledge transfer. Leaders understand the challenges, complexity, and holistic approach needed in defining an effective knowledge transfer process. The primary reason stated was due to past projects' minimal success in increasing organizational knowledge. These complex topics referring to the components of the ACAP model, social constructs, and leadership responsibilities findings are covered in-depth individually in the six research question findings.

Research Question 1 Findings

The first research question focused on why NFI technology leaders solicit outsourcing for implementation and managed services. The direct solicitation for services originates from the lack of internal technology associates' skills. Leaders further explained this lack of knowledge is primarily resultant of the rapid advances of technology and the difficulty in exploring, obtaining, and filtering the massive amount of pertinent information necessary for skills advancement. This is consistent with Lane et al.'s (2006) ACAP model and the ability of a firm to recognize valuable information and assimilate the knowledge into transformative learning and, finally, into exploitative organizational benefits. Furthermore, leaders stated NFI lacked formalized

development skills training for strategic initiatives or formalized continual learning programs for the development of technology associates. Leadership acknowledged formalizing processes for continual learning and development would help close a portion of the associates' technology skill set deficiencies.

The negotiation of the outsourcing contract process by this group of senior leaders was consistent as most leaders mentioned the inclusion of culturally related items necessary in the vendor evaluation process. All leaders voiced the necessity of standard time zone working hours, common languages spoken, and project methodologies as their primary criteria of vendor evaluation. All leaders felt vendor reputation and references from NFI technology partners and product suppliers were essential selection criteria. However, one leader regarded trust and relationship building as critical factors in the vendor selection process. This same leader viewed vendors as more of a team extension, and the desire to build relationships for a longer-term value to NFI was his focus.

Research Question 2 Findings

The second research question focused on the concept of the absorptive capacity processes and how effective the leaders' teams were in acquiring, assimilating, and exploiting external knowledge into organizational benefits. The importance of structures and processes for gaining the benefits for the organization from external knowledge sources was recognized as a deficiency area for all leaders' teams. All leaders stated there were no corporate standards and processes defined and felt these could be complicated to design and execute. In discussions, leaders voiced the benefits external knowledge could provide in increasing innovation and continual development opportunities for their associates. This is consistent with the exploring and exploiting external knowledge processes (Ferreras-Méndez et al., 2015; Lane et al., 2006) and

the linkage these formal processes have with the newly acquired external information and the positive impact on an organization's innovation capability. The critical component recognized by most leaders as a problem area within their span of control is the capability of associates' cognitive ability to explore, recognize, organize, and evaluate the pertinent information.

The sheer amount of rapidly changing information available to technologists for learning purposes is a factor in the usability of external knowledge processes defined in the ACAP strategy (Lane et al., 2006). The perception of leaders in this area is that a few of their higher-skilled associates are proficient and have the cognitive distance level acceptable in determining relevant information that could be valuable for their area of expertise. Forty percent of the leaders mentioned they had seen the value in technology conferences, vendor websites, and discussions as quality sources of external new information. However, mainly individuals with the deepest level of technical acumen can gain value and are those associates who tend to be willing to share information. All leaders realized the marginal ability of those individuals who can absorb newly held information and their effectiveness of socialization of the information, mainly due to the absence of defined processes.

A majority of leaders mentioned a familiar process of lunch-and-learns as an informal collaboration session with team members for passing knowledge down. Two leaders stated their teams were excellent at passing along the information to team members. Although these processes were undefined, individuals organically organized and structured the meetings to disseminate the information. One exception was noted by a leader who felt strategic information required intentional attention, either individual attention or discussions during formal team meetings set by an agenda. Social interactions are foundational for successful knowledge transfer

to occur. The more adept teams are on the social scale, the better the chances of effective knowledge transfer processes, as stated by Ringberg and Reihlen (2008).

Leaders agreed their teams were, overall, average to above average in their ability to interact and work well with one another socially. The more transactional teams were in job scope, the less socially interactive they were. In comparison, project or implementation teams tended to be more readily adept at utilizing either casual conversations or a collaboration videoconference application to share information. In contrast, two leaders' perspectives recognized the correlation between the newness to the organization or team of an associate and their openness to share or ask questions during public discussions. All participants agreed on the importance of social interactions as a critical success factor of their team's ability to transform critical acquired knowledge into valuable organizational outputs, also recognized by Lane et al. (2006) as a foundational component of ACAP. However, they were unsure as to what correct processes to implement to benefit their diverse team members' social tendencies and needs.

Research Question 3 Findings

Research Question 3 focused on social effectiveness and aspects of the social interaction dynamics of team members. As Lane et al. (2006) referenced in the core of their ACAP research and model, the social interactions are foundational for the transformation process of external knowledge to be exploited into the organization. With this said, leaders were cognizant of the criticality of social interactions and how they impacted learning and collaboration. However, most leaders said their teams exhibited average-level effectiveness and frequency of social interactions valuable enough to facilitate rich dialogue in collaborative sessions.

Participants conveyed their teams utilize ad hoc brainstorming sessions for troubleshooting or implementation process changes effectively, not specifically for knowledge

transformation of newly acquired external knowledge. Participants recognized the importance of external knowledge for organizational innovation; however, leaders stressed the development of learning processes could be a significant challenge for them and their teams. These challenges are specifically structural process and social interaction changes necessary to focus on overcoming "bucketing," or categorizing information, and becoming more reflective, challenging the status quo mindset. While discussing the social aspects between vendor and other external sources of the content, leaders expressed a bit of uncertainty due to the realization that they would have to be much more intentional in forming the defined processes and what the processes need to look like.

As the research has suggested, categorical thinking is beneficial in grouping vast amounts of new data for sensemaking of like data and handling dissimilar data in incremental learning processes (de Langhe & Fernbach, 2019). Therefore, the participants were potentially hesitant to design new processes due to their lack of understanding of data handling methods suggested by de Langhe and Fernbach (2019) of like and dissimilar data processing for identification and incremental learning. Further findings surrounding the processes of knowledge transformation provided an understanding of an NFI cultural benefit critical in transforming transformative learning. The NFI leaders overwhelmingly agreed NFI's culture is a safe environment to express differing opinions during interactions. One leader did mention one caveat: Although his team is trending toward becoming a "safe environment," a couple of team members felt challenging the status quo could be met with unfavorable resistance.

Research Question 4 Findings

Research Question 4 focused on leaders' experiences and perceptions of how well corporate LMS processes, tools, and content prepare continual knowledge and skill development

for technology workers. Technology leaders discussed the depth and breadth skills are necessary for the success of their strategic projects due to the complexity and variability of technology associates encounter. Business discussions entered the conversation as the leaders felt the corporate LMS process, tools, and offerings, in general, did an outstanding job in preparing corporate associates with business-related topical training, security training, audit, compliance, and the required governmental contracts training and their preparation necessary for the success of these job functions. However, all leaders expressed the inadequacy of the LMS corporate offerings in "moving the needle" necessary for technology workers' continual development and strategic learning needs. This LMS sentiment these leaders conveyed is comparative to recent studies by Findcourses.com (2019): In an interview of 70 L & D professionals, a mere 2% expressed technology training as their top priority.

These continual learning concerns are valid due to the complex depth and breadth of technical training needed to advance technical skills. As did the current research, the participants recognized employees needed the necessary T-shaped skills for today's competitive technical environment (Huang et al., 2015). Leaders acknowledged the LMS offerings could be beneficial for lower-skilled workers, increasing their skill sets to handle a moderate level of technology work. The training LMS offerings delivered the content using a dated computer-based training (CBT) model. Leaders further stated using the platform metrics, which showed minimal engagement among associates due to the lack of time spent on the CBT system, as a criterion in their appraisal of the current offerings. The leadership responsibility, coaching, mentoring, and skills testing were discussed and recognized as lacking substantially in all of the areas listed.

Formal coaching, mentoring, and skill testing and assessment are areas leaders voiced concern over and areas they would like to see addressed corporately for technical associates'

continual learning needs. Leaders also conveyed their responsibilities and the role they should engage in their associates' continual development. The responses included monitoring progress, assisting in the planning of curriculum, identifying areas for continual and strategic training, and partnering with LMS leaders to plan the technology training needs of their respective areas. One outlier in this topical area was a leader whose organization purchased a gamification-based training system. The feedback received from his direct reports was that many who used the LMS platform were excited about the capability of the training offerings, and the overall adoption rates had been excellent. He went on to say the system had provided continual and strategic learning benefits already. These benefits are due to the inclusion of current and continuous updating of the relevant technical subject matter contained within the platform. Furthermore, he stated the platform's assessment processes effectively assessed an associate's current level of knowledge of a particular technical discipline and provided them a recommended curriculum learning plan.

Research Question 5 Findings

The subject matter of Research Question 5 focused on leadership responsibility and behaviors necessary to facilitate associate growth before, during, and after outsourcing engagements. Ready et al. (2020) stressed collaborative sessions can benefit from embracing and executing healthy conflict. Leaders also felt their teams were equipped and trained on the benefits of facilitating healthy conflict. This method of dialogue can be a vital component for an organization to interact with external vendors during the outsourcing engagement in increasing problem-solving efficacy. Leaders from NFI embraced openness and the ability of their associates to engage freely with vendors and corporately in respectful dialogues. The majority of them had been trained and facilitated discussions on the importance of managing compelling

conflict to drive thought and innovation. This handling of conflict by NFI's leaders is consistent with research as a healthy conflict and valued in many organizations that train leaders and associates on engaging in healthy conflict (Curşeu & Schruijer, 2010). The diversity of individuals comprising many different ethnicities and countries of origin during outsourcing projects was commonplace for NFI. Participants felt the management of conflict is effective in developing and maintaining trust in virtual and on-premise teams.

Leaders discussed the decentralized locations and virtualization of associates during projects. The usage of modern collaboration video solutions was common and expected during their team member's project interactions. Leaders instructed their teams to participate within the virtual teams to experience and function like on-premise/in-person interactions. The majority of leaders recognized potential conflict between members by either facial expression changes or tonal quality of answers, which are easily predictable while utilizing video solutions. Leaders all agreed collaborative virtual sessions are a reality. Leaders had held discussions with their teams on normative expectations during virtual interactions. These discussions were due to the reality of virtual team organizational structures and interactions and are here to stay and need to be embraced by team members.

Digital mindsets of leadership behaviors are becoming increasingly necessary for organizations today (Ready et al., 2020). Sixty percent of the participants primarily operate in the producer mindset. Leaders conveyed the importance of proper decision-making processes and the efficacy of these decisions for organizational outputs. This cultural norm correlates with the producer mindset as a primary focus on execution and deliverables. Customer-centric and end-state results were also characteristics of the producer mindset digital behavior and recognized as a core competency of their teams' behaviors. These customer-centric focus leaders coached their

teams by expressing being “easy to do business with” and “partnerships with customers” as cultural norms. The topical questions and other probing questions during the interview implied the digital mindset of the connector. This digital mindset focus was the importance of creating trusted partnerships and was partially, if not entirely, an NFI leadership mindset.

Leaders, while contemplating their choice of the four mindsets of digital leaders (producer, investor, connector, explorer), recognized the duality of the benefits of the producer mindset of delivery of products and the impact efficacy of delivery of their project outputs as a component of relationship building with customers. However, the connector, explorer, and investor mindsets were acknowledged as behaviors familiar or utilized by those interviewed. One exception was a leader felt all four mindsets resonated with his leadership behaviors. These findings of the lack of leaders expressing explorers’ mindsets or investors are consistent with the minimal continual learning processes and execution by NFI leaders found in previous answers during the study.

Research Question 6 Findings

The final research question’s topical focus was on how well NFI’s culture supports outsourcing and learning objectives. Research by Robinson (2019) showed, generationally, the desire of individuals for continual development is 59% for millennials, 44% for Gen Xers, and 41% for boomers. The commonality of two of the most frequent responses from the participants recognized NFI financially supports continual learning, and associate development is increasingly becoming a corporate core value. Leaders clarified departmental training budgets allowed leaders to tailor training budgets relevant to their associates’ yearly needs. Corporately, NFI provided tuition reimbursement, LMS offerings, and various learning opportunities available periodically throughout the year. NFI provided its associates a substantial training allotment, and

multiple training options were available to associates; most respondents felt there were several hindrances impacting engagement of continual learning.

The barriers the majority of leaders referenced were related to time availability for training during the associates' working hours and the lack of formalized development planning, coaching, and mentoring. These barriers of the absence of formalized learning objectives and structures offered by corporate learning were again mentioned in this topical discussion as problematic. Leaders felt the velocity of corporate projects and initiatives implementing technology solutions provided limited opportunities for continual learning focus. However, research by Kane et al. (2018) reported that of current technology workers surveyed, 90% needed yearly development, and 40% of those surveyed responded to the necessity of more systematic skill development. Continuing with Kane et al. (2018), only 34% of the individuals they interviewed felt their organizations satisfied their learning needs.

In summary of this section, topical cultural questions had a common theme of previous topics, only these findings were from an expanded corporate perspective, not departmental. The necessity of the strategic and continual learning needs of all associates at NFI is recognized as a critical concern of leaders in achieving outsourcing objectives and increasing organizational outputs. Leaders' typical responses to the positive qualities of NFI were entrepreneurial spirit, honesty, transparency, and willingness to embrace continual learning. Finally, another positive cultural aspect was the openness of most associates' willingness to accept feedback and utilize it for growth.

Implications

The study indicates the importance of formalized knowledge transfer processes and structures for NFI technology leaders to achieve effective knowledge transfer during their

technology outsourcing projects. Previous research by Lane et al. (2006) provided a process-centric, updated ACAP model proven effective for facilitating valuable external knowledge to an organization for practical outputs. NFI leaders understood the importance of the intentionality necessary to acquire external knowledge. However, to achieve this knowledge transfer from external vendors in technology outsourcing initiatives, NFI leaders understood formalized learning processes corporately were a necessity.

Participants included in this study made known the informality of associates' continual learning structures currently at NFI and the negative impact on associate skill advancement the lack of processes and structure has had. Leaders acknowledged this lack of intentional strategic planning, coaching, and mentoring their associates for skills advancement is a concern. As stated by the leaders, this has occurred continually and has increased the need to seek vendors due to skill gaps in fulfilling technology needs. But it has also increased the likelihood knowledge transfer in outsourcing projects will not be successful, and continued vendor dependency could be the result.

The lack of learning structures and processes at NFI coincides with recent research from Chou et al. (2015), who recognized organizations that fail to recognize and develop organizational learning competencies are at a higher risk of project failures. Chou et al. (2015) stated the lack of development of continual learning processes increases the risk of limiting innovation, the potential of project cost overruns, and future vendor dependency. Study participants were unclear on how to develop, design, and implement the new learning structures. However, study participants felt engaging their associates in a social environment to facilitate learning and relationships through open discussions could deliver positive learning experiences and foster experimentation.

Ready et al. (2020) and prior research from Ringberg and Reihlen (2008) stated digital leadership mindsets, social structures, and relationships to increase vendor trust could benefit the increase of knowledge transfer between entities. These research concepts and the ACAP model are recognized as the foundation of the problem this research is attempting to address. As acknowledged in the study participants' responses and the literature, leaders recognized the importance of building healthy relationships within their internal team members. Participants also recognized the importance of developing trust and relationships for effective vendor engagement as a vital component of project success.

The study recognized trust and healthy relationships could be a significant strength in outsourcing project success. However, a challenge in developing trust and relationships exists due to the project members interacting within a virtual environment during outsourcing projects. Ready et al. (2020) and Vygotsky (1987) cited social interactions between individuals that enable learning through discovery, experimentation, and collaboration, as did Lane et al. (2006) in their ACAP model. Researchers and study participants acknowledged virtual teams are, and will be, integral organizational structures for work to be accomplished effectively. However, I found participants were not in agreement on the proper and most effective structures and processes necessary to facilitate trust and knowledge transfer development. Finally, this inadequacy of proper structure and process formation understanding by the leaders led to another implication of the importance and understanding of digital leadership mindsets.

The purpose of the study was to determine if proper knowledge transfer during outsourcing engagements with vendors led to increased organizational outputs and performance. Leadership's role is recognized in the study findings as critical in developing effective knowledge transfers and vendor engagement. Digital leadership is recognized by research as a

mindset and behavioral competency necessary for today and future leaders' effectiveness in leading organizations in the new digital epoch (Ready et al., 2019; Sawy et al., 2016; Scharmer, 2016). As noted in the findings, the development of associates' knowledge, relationships, and trust is necessary for technology outsourcing transformation to occur for successful organizational benefits.

Digital leadership behaviors have been recently recognized in 82% of 4,394 organizations participating in recent research as a critical leadership mindset (Ready et al., 2020). However, the researchers noted only 40% of the same organizations in the research responded they had the necessary digital leaders in their pipeline. This lack of a digital leadership pipeline is consistent with the findings of this study and from the research performed by Robinson (2019) on the importance of meeting associates' generational needs necessary for increasing their engagement and retention. Leaders at NFI were currently representative of the producer mindset, which excels at executing and meeting customer needs. However, I found the leaders and the NFI organization holistically stressed the importance of benefiting their community, developing associates, and creating trustful relationships as corporate values, all valuable digital leadership mindsets.

The limitations recognized in this research highlight the multidimensional needs and benefits of developing a process-centric knowledge transfer internal framework of obtaining externally available knowledge sources into useable organizational value. These processes included the alignment of internal human and learning resources, structures, and processes to develop a curriculum aligned with the organization's strategic initiatives for associate continual learning objectives. The adequately defined internal processes will provide the interaction connections in soliciting the correct vendor and contractual structure of knowledge transfer

objectives for exploitation for organizational benefits. Furthermore, incorporating a digital leadership training program will assist in developing a cohesive leadership strategy to ensure NFI is appropriately aligned for the new digital economy.

The digital leadership mindsets and behaviors are vital in closing the generational needs of the multigenerational workforce. The study depicts the efficacy of leadership and team members to address conflict in a healthy and nonpunitive sense and to ensure diversity of thought and respect are provided to all team interactions respectively in a safe environment. Finally, digital leaders' behaviors will assist in the development of vendor relationships based on trust and facilitating rich social interactions necessary for knowledge transfer to occur. When guided by a competent digital leader, these relationships will present NFI the necessary framework to lessen future outsourcing due to the development of continual strategic learning investments and by recognizing specific outsourcing needs and the internal processes to support external to internal knowledge exploration and transformational learning to occur.

Recommendations for Practice

The continual learning development of technology associates for skill and knowledge advancement by offering a structured and process-centric model as the finding implications stress are integral in improving outsourcing outcomes and innovation at NFI. However, these recommendations are for all intents and purposes for NFI based on the findings' alignment to previous literature. The recommendations could be beneficial for other types of medium-sized organizations.

Technology Leaders Partnering With Corporate Learning and Development

- Technology leaders should partner with corporate L & D leadership in discussions of structured learning and development needs on a yearly basis. These discussions

should focus on strategic technology skill gaps of current and future job descriptions in their respective technology areas. This will enable technology leaders' insight into yearly planning of developmental goals of their associates structured strategically and intentionally. Leaders should also purposefully utilize vendors and suppliers in incorporating future skill needs.

- Technology leaders should partner with the L & D staff to assist in the development of proper and unified learning structures and processes designed for individual development planning. These learning structures will empower incremental learning, addressing the time constraints technology associates face.
- L & D training offerings should explore and consider curriculum based on the modern digital leadership mindsets and behaviors for NFI's ongoing leadership development. This digital leadership curriculum will assist leaders by providing personal and professional leadership growth of their mindsets and behaviors necessary to lead in the digital economy by addressing multigenerational diverse teams' needs.

Technology Leaders' Awareness for Process Improvements

- Leaders should gain knowledge on the ACAP model represented in this study's literature review to help them form processes and interactions between internal and external sources of knowledge acquisition. These processes should include the importance and inclusion of the social processes necessary to facilitate the external and internal processes for successful transformational learning to occur.
- The constant and rapid rate of change in technology associates' responsibilities requires leaders to examine yearly positional skill sets of their team's job

descriptions. These should be updated and communicated yearly to their associates to incorporate into their learning planning. Leaders could work with People Services as most HR departments have access to current industry positional skills to determine relevance inclusion for updating job descriptions and potential for new positions for NFI.

- The contract negotiations should be structured for intentional knowledge transfer and training of internal associates to occur. Leaders need to identify strategic learning goals for the project team. These learning goals recommendations would be to include them in the contract language and deliverables as necessary items of the project's definition of *done* and *closer*.

Conceptual Model Framework Significance

This study's use of a conceptual framework design was developed due to the lack of agreement in the literature of a defined method of increasing the probability of successful transformative technology outsourcing learning to occur between the client and vendor. The reconceptualized seminal ACAP Cohen and Levinthal (1990) model presented by Lane et al. (2006) provided the foundational process-centric model referenced throughout this study. However, multiple ACAP literature models exist; the Lane et al. (2006) model emerged due to having social sciences interactions integrated, which are vital for technology outsourcing team interactions to overcome mental biases and transformational learning.

Seminal research by Vygotsky (1987) provided an understanding of the importance of the learning potential of individuals. Birasnav et al.'s (2019) sociocultural theory provided social constructivism concepts related to the exploration and acquisition processes of the ACAP model.

These models provided an understanding of the importance of social interactions and mental models in individuals' knowledge acquisition capability and transformation processes.

Through the discovery, experimentation, and collaboration processes, social interactions are vital in understanding defining interactions between the vendors and clients for outsourcing project success. Throughout all the references in ACAP and social sciences research, leadership was a common thread of responsibility for delivering the organization's innovation, quality, and output needs. However, none of the previous research studied provided insight into a type of leadership model to incorporate. Today's current global digital organizational transformation recognizes the importance of organizations' digital leadership mindset readiness. The implications of a leadership model that provides leadership mindsets and behaviors in leading multigenerational virtual teams during outsourcing engagements cannot be understated.

The distributed model consists of many organizations associates and teams today, coupled with the complexity and rapid change rate of technology. Cognizant and MIT (Ready et al., 2020) emerged with the conceptual four mindsets and their behaviors necessary of modern digital leaders. Digital leadership concepts of being customer-centric, exploring and experimentation needed for continual learning of internal associates, and investing in the generational needs of associates align with both the ACAP and social science approach in improving organizational outsourcing outputs. This leadership model also addresses the continual learning future needs necessary in preparing an organization to lessen vendor dependency.

Limitations

The conceptual model and study population used for this study served me well in supporting the central research question and encouraging many functional areas outside of this

study; however, there were several noted limitations. The model designed centered on the processes and the potential role ACAP could have on the vendor–client knowledge transformation during and after a technology outsourcing project on the client's organizational outputs. The ACAP model chosen for this study represented a reconceptualized process-centric model from Lane et al. (2006). The purposeful inclusion of leadership and social sciences comprising the conceptual model was to capture their potential role and how these constructs influenced transformational organizational learning within the ACAP processes. The data provided by this model supported the central research question, whereas a differing hypothesis utilizing this model could have unexpected results.

Secondly, the small population and lack of diversity within the study's targeted participants was another potential limitation of this study. The study was a single-case study of 10 IT executives and senior leaders from one organization. The study population consisted of an all-male, single-ethnicity population. The intentionality in selecting the population was to focus on the infrastructure department leaders. The potential existed to understand the complexity of the vendor-to-client knowledge transfer within this interdependent group of leaders and their teams due to intrateam interactions. These teams interact extensively and are dependent on each other during a project and supporting the totality of a particular new technology product during implementation and for ongoing production needs. However, it could be said the limited size of the population, single organization, and department could create biases and not represent the organization as a whole due to other leadership experiences. Although some might view this small population as a limitation, the data collected provided over 10 hours of interview transcribed data. This data resulted from 35 questions—many of them probing questions arranged on the central research question and conceptual model.

Finally, a potential limitation is the lack of diversity of participants' ethnic and gender composition. The infrastructure department of this particular organization lacked any diversity among its executive and senior leaders. The study would have included and embraced diverse population participation and conceivably have benefitted from a diverse population response in showing differences and insights. These diversity perceptions and experiences of social interactions and leadership experiences could be a valuable insight into the organization's culture, vendor selection, and knowledge transfer processes. The results of this research study could be generalized to only medium-sized financial institutions; however, the conceptual model can be utilized in differing business verticals and organizations of varying sizes.

The study findings and conceptual model are applicable for most organizations due to the inclusion of a recent global research study performed by Cognizant and MIT of leadership competency necessary for the digital economy (Ready et al. 2020). Leaders play a vital role in sensemaking the future strategic needs of the organization. The model presented in this study centered on the importance of leaders' understanding of ACAP processes and structures, which are the primary interfaces of both external and internal continual knowledge development. These interfaces are present in most organizations and are vital for effective social interactions with external knowledge sources and for transformative organizational learning to occur. Furthermore, the external interfaces provide rich data for an organization's current and future learning and development needs.

Leaders and project team members interact with external vendors and sources of information frequently in their roles. These interactions with external knowledge sources can influence curriculum designed by partnering with corporate learning and human capital development leaders. The inclusion of corporate learning and development expertise can provide

technology leaders the training and structures to facilitate relevant training needs. A recent finding depicted in this study exemplified the need for technology leaders and corporate learning professionals to escalate the urgency of providing corporate prioritization of strategic technology learning programs (Findcourses.com, 2019). These learning programs can assist an organization in lessening future outsourcing needs by developing a curriculum for their technical resources based on strategic initiatives and current knowledge gaps (Findcourses.com, 2019).

Recommendations for Future Research

The limited qualitative case study size and diversity of the population could be one area for future research opportunities. The diversity of the population would provide insights into differences between the genders and ethnic groups' experiences and provide an opportunity for comparative analysis between single and multidiverse populations. The ability to expand the participant population size either from a qualitative or quantitative methodology would provide a more extensive sampling. The larger sample size could provide the researchers with an expanded view of knowledge transfer from different generational and diverse populations. Along with the diversity component and larger sample size, an associate-level experience's viewpoint could provide a comprehensive view of overall difficulties or successes in vendor relationships and knowledge transfer experiences in future research.

This study provided experiences and phenomena related to outsourcing challenges from a senior and executive leadership perspective of a medium-sized 8,000-employee financial institute. However, the study results and processes could be generalizable independent of business department, business market, organizational size, and use case. The conceptual model represents an emerging leadership mindset, social sciences, generational research, and a process-centric ACAP model. The expansion to further use this research model could also help internal

knowledge process development in structuring technology and business units' continual learning between teams.

This study centered on a process-centric ACAP model as a practical knowledge transfer guide from external to internal sources, providing valuable insight into the complexity of knowledge transformation. However, an opportunity for future research from a vendor perspective could provide organizations the experiences the vendors have had on successfully transforming a client's organizational knowledge. The insight from the vendor's perspective could help prepare the outsourcing contract defining the knowledge transfer processes and deliverables. The knowledge acquired from the vendor research perspective could also assist clients in pre-employee skills assessment and training requirements of the employee selection involved in the outsourcing project. This insight from a historical perspective of vendor successes and failures to transfer knowledge could provide organizations processes planning opportunities before engaging a vendor for a technology project.

Conclusions

Throughout this study, the purpose was to understand from a lived experience perspectives of senior and executive technology leaders on whether knowledge transfer was possible during an outsourcing project to increase organizational knowledge. This increase in knowledge was sufficient to support the technology and for future state innovations. The study findings supported the literature as knowledge transfer is a complex and intentional composition of formalized structures and processes. These processes, combined with well-diverse digital leadership acumen, are vital in leading future generations of technology workers and providing the best opportunities to increase organizational knowledge from external sources. The

involvement of corporate L & D can be increasingly beneficial to technology leaders if the learning offerings are continuously improving and adapting to technological advancements.

As organizations become increasingly diverse, people, processes, continual learning, relationship, and trust building will help achieve the organization's outsourcing goals. Digital leaders will also be responsible for building agility and resiliency into their process and people to facilitate the future state of constant change. Building right-sized teams who are relentless in changing course quickly and fostering healthy conflict management to overcome dialectic tension during collaborative sessions are vital. Challenging currently held private models of individuals or an organization is a potential point of conflict. These challenging collaborative sessions are sources of adapting for innovation and reflective learning. During these processes is the opportunity for mental maps to be changed and absorb newly acquired knowledge. Through experimentation and flatter organizational hierarchies, associates' implementation of the ACAP processes will allow them to connect with the necessary individuals during social processes, and cross-functional teams change activities.

The research depicts a future for technology workers as one of constant change. Organizations will be adapting more quickly due to market fluctuations and pressures to innovate. This constant change both externally and internally will require digital leaders to recognize and navigate the "blind spots" and sensemake strategic learning and outsourcing need to prepare their organization and associates for success. These successes will focus on the organizational effective financial management of technology budgets, associate engagement, and retention. In doing so, leaders will lessen the potential of their organization falling into competency traps and excessive outsourcing expenses. Digital leaders' ability to communicate

and coach the concepts and behaviors of agility and resiliency to their team members in preparation for disruption and leading them through ambiguous problem-solving.

Finally, the research provided insight into an organization's current internal knowledge acquisition and transformation processes, leadership, culture, and strategic learning objectives. I intended to utilize the conceptual model to determine if an organization has a functional and prioritization-readiness perspective to address contractually with a vendor knowledge transfer as a project deliverable. The literature and research suggested organizational readiness before outsourcing engagement from a strategic perspective is critical in achieving organizational goals and increased performance. Internal organizational readiness of leadership and associates understanding and implementing the ACAP model processes for knowledge processing will increase the probability of outsourcing success and organizational knowledge competency.

Listed in no particular order are recommendations to enhance organizational outsourcing project knowledge transfer and success of lessening future vendor dependency:

- Strategic technology initiatives should have a strategic learning component recognized.
- Identify the strategic learning initiatives and the potential need of reskilling, upskilling, or retooling the internal workforce.
- Sensemake the future by developing and applying organizational structures to disseminating large amounts of external information into explicit, concise, practical training material and developing the social processes for transformation learning.
- Develop an ACAP process-centric internal process of exploring, acquiring, assimilating, and exploiting valuable external information for strategic learning and continual associate development.

- Prepare the organization by the development of digital leadership behaviors and mindsets.
- Cultivate systems and processes to advance and facilitate curiosity, diversity, and creativity of thought and experiences for the workforce.
- Make space for learning and collaboration as part of a normative cultural expectation.

These recommendations will help an organization and leadership prepare their organizations for outsourcing and potentially increase organizational production. The inclusion of learning objectives and processes in outsourcing contracts is imperative if organizational knowledge increases are to be realized.

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Appendix A: Institutional Review Board Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 16, 2020

John Mello
Department of Organizational Leadership
Abilene Christian University

Dear John,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "An Organizations Ability to Improve Outsourcing Outcomes in Information Technology Outsourcing Initiatives by Increasing Organizational Knowledge: A Case Study",

(IRB# 20-192)is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Appendix B: Letter to Interviewee

20-192 Date of Approval: 12/16/2020

Letter to Participant

Dear _____,

I am a currently pursuing my doctoral degree at Abilene Christian University. The purpose of this email is to request your participation in providing your experiences and knowledge of leading the organization through change from a technology outsourcing project perspective. Your participation requires an hour of your time for a video interview. This is a critical milestone in completing my dissertation and doctoral journey I've been on the past five years.

Through my research, questions arose regarding how valuable outsourcing projects and vendor engagements can be to an organization acquiring knowledge. The purpose of the research is focused on how effectively organizations can recognize and incorporate external knowledge from outsourcing projects, and what processes are the most effective in doing so. I would like to explore from your lived experiences and perceptions, the reality of acquiring and the factors impacting organizational knowledge transfer during technology projects.

Please keep in mind, confidentially is of the upmost importance. All participants identities and response data will be anonymized and encrypted. For those of you who are willing to participate, please keep in mind, you are free to drop from participating, or answering any question presented at any time in the process. When you find a good time on your calendar to schedule an hour for the interview, please respond to this email. I am planning on completing all interviews within the next 30 days. There are further details in the attached document outlining the interview process and scope.

Thank you,

John Mello

Appendix C: Semistructured Interview Questions

First, I'd like to thank you for participating in this study and interview. The format of the interview will first provide a personal background of your experiences in leading outsourcing projects. The first interview question asked is one in which you'll discuss your position within NFI along with five questions regarding contract development. Next, there will be five topics, which I will explain, followed with three to five questions related to each topic. Please keep in mind your identity, answers, and any data are kept confidential and only coded as a number; no names are used to identify data or participants. Again, thank you for participating and for answering as thoroughly as you can on each question.

Opening Questions

1. Tell me about yourself and your role in the organization.
2. How many outsourcing projects have you participated in as a leader and decision-maker?
3. What is an average length of an outsourcing engagement implementing a new technology?
4. What is the average length of a managed service contract?
5. Can you provide total number of dollars spent on outsourcing in 2019 and 2020? If so and known, do you expect costs to increase?
6. Overall, how would you rate your success in assimilating the external knowledge working with your vendors to organizational knowledge capable of innovation and continuing support of your newly acquired technology? Probing questions: Do you continue to maintain a managed service contract? Are there instances with certain technologies by you do not have the skill sets?

RQ1: What are the main reasons to outsource and the vendor selection process?

1.) What is the main purpose for outsourcing to a third party (i.e., lack of internal knowledge/skill/staff augmentation)?
2.) What type of IT services do you solicit vendor contracts for?
3.) How do you evaluate which vendor will provide the expertise for your project demands (i.e., resumes/qualifications of vendor associates)?
4.) Are there any cultural criteria and discussion in the vendor selection process? If so, could you explain them (i.e., time differences, language barriers, project processes)?
5.) During the discussions with potential vendors, are there conversations on knowledge transfer? Are these processes formalized and documented? What type of processes and documentation are provided? Is this an additional cost or specifically a line item in the contract?

RQ2: How effective is your team in acquiring and assimilating external knowledge to organizational knowledge from the vendor to client?

1. How are your organizational structures/processes designed to facilitate external knowledge to transfer into useable organizational knowledge? Are these processes/structures formalized or a corporate standard (i.e., learning, communication, boundary-spanner associates)?
2. How would you describe your team's knowledge ability to recognize relevant, sought-after strategic external knowledge, "sensemaking of near-future knowledge," and their ability to come together and engage in dialogue to transfer knowledge from a member to a group? Is this a standard or formalized strategy/process/occurrence with your team?

3. How would you describe the relationships between team members (i.e., transactional, competitive, social, engaged)? Probing question: How would you describe individual knowledge diversity? Have you witnessed healthy/unhealthy competition or dialogues?
4. As a leader have you created strategic "guiderails" of project learning goals by pairing internal team members with vendor members? How does the team during and post project assimilate this acquired knowledge to members of the team/organization who are not directly participating in the project work?
5. How well would you say your area of responsibility works with external sources (vendors, conferences, etc.) of knowledge? Is it able to socialize, transform, and assimilate this newly explored knowledge into usable organizational benefit?

RQ3: How effective and prevalent are your team member social interactions and team dynamics?

1. How would you describe your team's ability and collaboration process of new knowledge in transforming team members current cultural models? Could you explain the dialogues, routines, practices, shared experiences, and experimentation that occur?
2. How well does your team challenge their current categorical thinking in creating new models of thinking with such vast amounts of information? How do team members process and dialogue in their sensemaking process, and do they agree with the new model of thought? Probing question: As a leader, have you sensed conflict or members perhaps amplifying their current held beliefs in collaborations, limiting

dialogue, and does this impact innovation? How do you coach members through this limiting dialogue?

3. How well does your team during collaboration utilize brainstorming sessions? Do you feel brainstorming sessions encourage or discourage challenging and changing perceived or fixed privately held models of thought?
4. Do your team members feel they are in a "safe" cultural environment to challenge the status quo during interactions?
5. Would you view your team as a team that is highly social in terms of discussions surrounding knowledge transfer?

RQ4: How well do NFI learning and management programs prepare technology workers?

1. How are corporate learning tools and processes at preparing technical associates in preparation of implementing strategic technology initiatives?
2. What tools/products are included with the LMS program for associate knowledge development that your teams utilize and have seen skill progression? Do these tools provide the depth and breadth of learning new technology advancements?
3. Does leadership or LMS staff provide mentoring and coaching of the associate in curriculum design, monitoring progress, and testing of knowledge gained?
4. Do corporate LMS leadership meet with technology leaders yearly on desired skills/strategic training needs or industry advancements in technology trends?

RQ5: What are your leadership responsibilities and behaviors necessary to facilitate associate growth before, during, and after outsourcing engagements?

1. Have you or others on the team participating in the project been trained in conflict management? If so, was this company-sponsored training? Probing questions: Have

you witnessed positive “friction, disagreements” or negative “threats, facial changes, aggression” conflict in team interactions? Do you as a leader encourage your teams and coach them on accepted and healthy conflict practices?

2. As a leader, how do you prepare your team members for strategic initiatives and growth? Do you feel all of your team members have a shared understanding of your area’s vision and strategy?
3. Would you categorize your team as being agile and resilient? Could you provide an example of an agile or resilient behavior you as a leader coached your team in adopting?
4. How well do you lead through disruption, and what impact has this caused in the past to the team and organization?
5. Do you feel your team is centered on end-state results and displays customer-centric behaviors? Reflect as a leader and provide me one example on what it means to be (a) a producer, (b) an. investor, (c) a connector, and (d) an explorer for equipping your team members.

RQ6: How well do NFI’s culture questions support outsourcing and learning objectives?

1. What is your perspective of NFI’s culture’s health in supporting continual learning? How would you describe your team’s desire for continual learning? Probing question: Do you as a leader feel equipped to coach and mentor your direct reports?
2. Please describe three positive aspects of NFI’s culture.
3. Are there negative aspects to NFI’s culture that prohibit you as a leader to develop your associates? Overall, from a 1 to 5, with 5 being *NFI’s culture encourages*

associates and does a good job on providing growth opportunities and 1 being *NFI fails to allocate resources and time* to associate professional development?

4. Do you feel NFI provides a culture that encourages openness with disagreeing thoughts and opinions, and are those sentiments met, accepted, and reacted by leaders and others with a positive and healthy dialogue to explore the differing opinions?
5. How well does your team utilize feedback from outcomes of discussion to adapt and change? Is this a culturally normative behavior?

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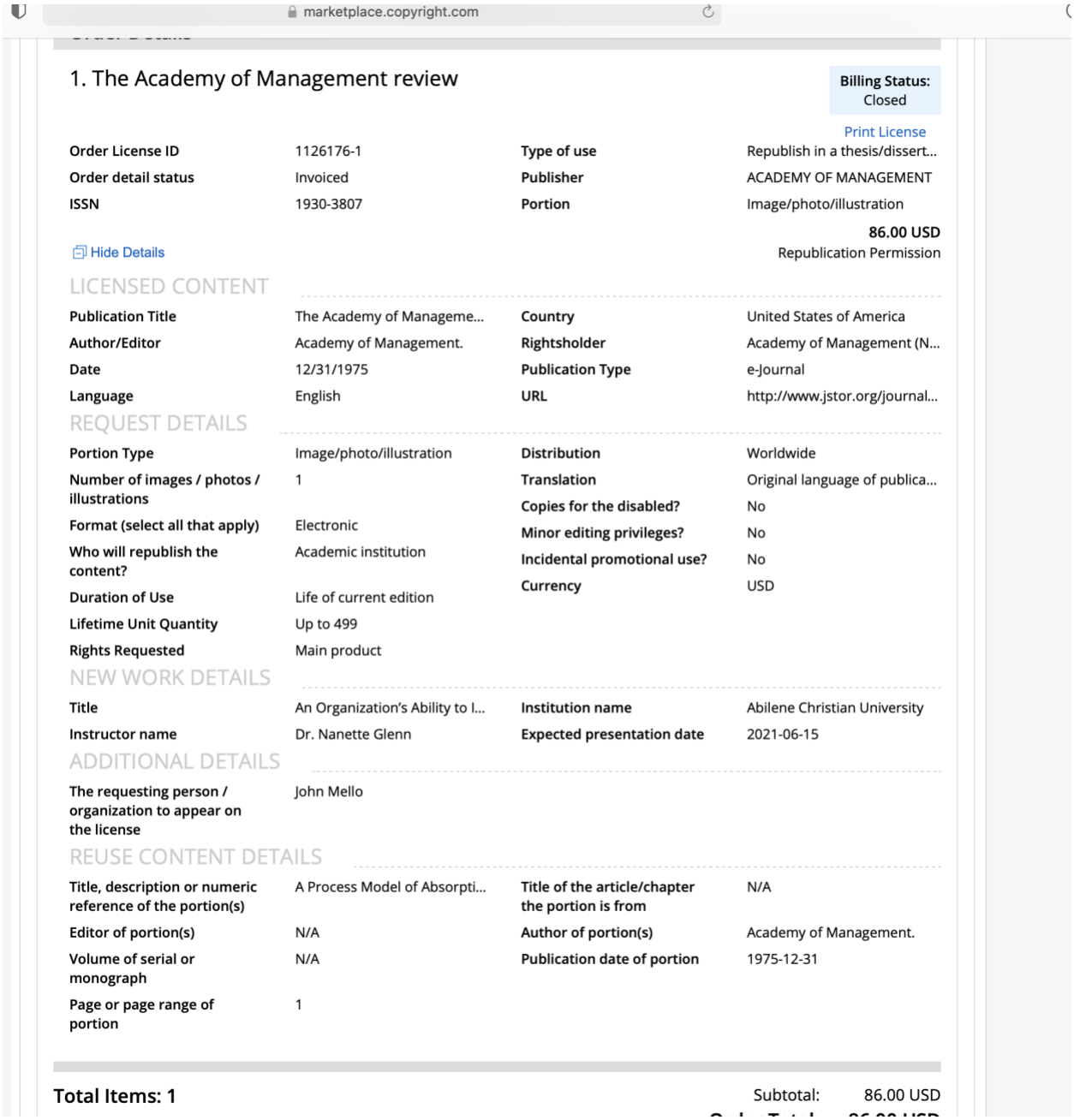

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