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Individual Contributor Experiences of Task Uncertainty and Task Interdependence Under Different Structures

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Walden University

College of Management and Human Potential

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Andrew R. Barbeau

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Walden University
2022

Abstract

Individual Contributor Experiences of Task Uncertainty and Task Interdependence Under
Different Structures

by

Andrew R. Barbeau

MPhil, Walden University, 2019

MBA, Babson College, 1998

BS, Bryant University, 1987

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
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Management

Walden University

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Abstract

Approximately 84% of North American individual contributors work in organizations with functionally specialized structures where task uncertainty (TU) and task interdependence (TI) undermine cross-functional task execution. However, there is a lack of research into the TU and TI experiences of individual contributors under different organizational structures. It is important that senior leaders have this missing knowledge to inform structural decisions. The purpose of this generic qualitative, exploratory, snowball sampling study is to explore how individual contributors experience TU and TI following a reorganization from a functional to a horizontal organizational structure. In the current study, the research questions explored were individual contributor experiences of TU and TI before and after a reorganization, and how post reorganization TU and TI were perceived by individual contributors relative to their understandings of task execution. Inclusion criteria for 25 participants were reorganization experience, working on a core product or service under both structures, and maintaining a similar role. Data were collected using interviews and analyzed by isolating working conditions of TU before, TU after, TI before, TI after, and post reorganization perceptions of TU and TI. The key learnings were the realization of the need for a systems-thinking perspective to organizational design decisions and knowledge of how the new structure will impact individual contributors and their ability to execute tasks (i.e., TU and TI). Implications for positive social change include improving working conditions for individual contributors and reinforcing structural design decisions that support growth without TU and TI burdens.

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Chapter 1: Introduction to the Study

Choosing an organizational design or organizational structure is one of the most critical and challenging decisions any senior leader can make. As the result of that decision is a significant factor in determining the division of labor (Burton & Obel, 2018). The division of labor has traditionally represented the process by which individual contributors (i.e., nonmanager/supervisors) are grouped into functionally specialized departments and made responsible for narrow task assignments that represent a small portion of a larger cross-functional workflow (Raveendran et al., 2020). The term *functional specialization* is defined here as the grouping (e.g., physical and/or logical) of individual contributors into separate work units (i.e., departments) based on a single specific knowledge or skill (Bolman & Deal, 2017) and managed by a similarly skilled manager. The decomposition of cross-functional workflows into narrowly defined tasks is necessary to support functional specialization; however, it can lead to *task uncertainty* (TU) and *task interdependence* (TI) for individual contributors (Shuffler et al., 2018; Young-Hyman, 2017).

Donaldson (2001) defined TU as reduced task clarity related to understanding how to convert inputs into outputs and TI as an increased task reliance on others' activities, knowledge, or authority. The conditions of TU and TI associated with functional specialization undermine individual contributors' effectiveness to execute cross-functional tasks (Henk & Fallmyr, 2020; Ostroff, 1999; Park et al., 2020). Examples of the challenges individual contributors face from TU and TI include complexity understanding task responsibility, scope, procedures, alignment, urgency, and

decision making (Henk & Fallmyr, 2020). The most common approach to address TU and TI is to invest in *coordination* activities, defined as the additional effort required to reintegrate functionally specialized individual contributors to work on portioned cross-functional tasks, align with departmental procedures and requirements, and ensure the complete workflow's satisfaction (Burton & Obel, 2018; Desantola & Gulati, 2017).

Traditional approaches to organizational design promoted functional specialization as an effective means to dissect larger operational workflows into more manageable subtasks (Burton & Obel, 2018). The predominant method of organizing individual contributors is functional specialization (Gallup, 2017; Giri & Ramakrishnan, 2019; Wellman et al., 2020), which results in TU, TI, and the need for coordination. A more recent organizational design choice, the horizontal organizational structure, avoids functional specialization and may, therefore, reduce the challenges of TU and TI and simplify coordination by organizing individual contributors in direct alignment with cross-functional workflows (Zelt et al., 2019). An exploration of TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure is needed to inform structural decision-making. People are bound by their knowledge schemas, experiences, and biases when processing information and making decisions (Bunderson & Van der Vegt, 2018); therefore, the current study's findings may benefit senior leaders by expanding the available knowledge on the role of structure on TU and TI. The current study focuses on TU and TI's individual contributor's experiences following a reorganization from functional specialization to a horizontal organizational structure to obtain missing knowledge and

potentially contribute to positive social change by improving company growth and individual contributors' working conditions with less TU and TI.

Chapter 1 begins with sections on the study's background, problem statement, the purpose of the study, research questions, and conceptual framework. The middle of the chapter consists of sections on the study's nature, definitions of terms used in the study, and assumptions. The chapter's final portion consists of the scope and delimitations, limitations, and significance of the study.

Background of the Study

There is an extensive history of the division of labor through functional specialization to manage large numbers of people (e.g., soldiers, clergy, or employees) in pursuit of institutional goals (Shafritz et al., 2016). Senior leaders specialize their organizations to break down larger objectives into smaller, more manageable units (Burton & Obel, 2018). The extensive use and study of functional specialization during the industrial revolution and again in the early 1900s secured its position as one of the preeminent means of organizing individual contributors (Kreager, 2017). Functional specialization successfully met the productivity and efficiency requirements in the classical period of slow change and mass production (Hamid et al., 2019; Kreager, 2017). By the 1950s, functional specialization was considered a well-accepted and central part of classical organization theory (Hamid et al., 2019). Most senior leaders still use functional specialization to break down their companies into departments that contain individual contributors of a common skillset (Giri & Ramakrishnan, 2019). Challenges to classical organization theory, such as the human relations school, advocated for new

ways of thinking that sought to validate individual contributor experiences as relevant and meaningful to senior leaders (Shafritz et al., 2016). Advances such as the human relations school represent the origins of the awareness and importance of how individual contributors' experiences should inform senior leaders' decisions.

Task uncertainty and task interdependence topics have received extensive literature coverage, originating from structural contingency theory (SCT). Structural contingency theory emanated from the general systems theory of the 1950s and relates organizational performance to achieving fit between contingency factors (e.g., TU and TI) and organizational structure (Sayilar, 2016). Early definitions of SCT stated that the existence of a contingency factor should trigger a change in organizational structure to restore fit (Miner, 2011); however, Donaldson (2001) added that structure might also lead to the contingencies of TU and TI. The idea that structure may lead to contingency informs the current study by exploring individual contributor experiences of TU and TI following a reorganization from functional specialization to a horizontal organizational structure.

Coordination theory, an interdisciplinary field that leverages computer science, organization theory, management science, economics, and psychology, investigates how separate actors' activities can be coordinated (Malone, 1988). Definitions of coordination have not changed dramatically over time. Malone and Crowston (1994) described coordination as managing dependencies between activities, while Nawata et al. (2020) described coordination as the core teamwork process of orchestrating the team's sequence and timing of interdependent actions. The process of coordination involves additional

efforts such as planning activities, task assignments, communications, and coaching (Nawata et al., 2020) to compensate for TU and TI. Consistently applying these efforts is complicated as individual contributors experience and respond to TU and TI differently due to different coping mechanisms, thus complicating coordination (Park et al., 2020). Coordination mechanisms can only be determined after choosing an organizational structure, as managers must visualize coordination requirements against their contextual environment (Raveendran et al., 2020).

Given that organizational structure occurs first, structure defines and limits options to achieve effective coordination (Burton & Obel, 2018). Additionally, the complexity of coordination mechanisms must match or exceed the complexity of the environments they serve to support (Raveendran et al., 2020). For the current study, exploring individual contributors' TU and TI experiences following a reorganization from functional specialization to a horizontal organizational structure may provide further understandings of coordination requirements with horizontal organizational structures.

Horizontal organizational structures, introduced in the 1990s, depart dramatically from functional specialization. Horizontal organizational structures organize individual contributors around large segments of the entire cross-functional workflow and place them into teams with all the needed skills and functional knowledge to accomplish their portion (Zelt et al., 2019). The horizontal organizational structure's cross-functional workflow orientation avoids functional specialization and may reduce TU and TI and simplify coordination. Researchers have recently associated horizontal organizational structures with potential task-level improvements (Zelt et al., 2019), indicating the

possibility of reduced TU and TI. The horizontal organizational structure has yet to be considered in TU and TI's individual contributor experiences to inform structural design decisions. The current study is needed to address the lack of research regarding TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure.

Problem Statement

The division of labor through functional specialization is the prominent organization structure choice (Gallup, 2017). The resulting departmental structures create TU and TI for individual contributors (Raveendran et al., 2020). Horizontal organizational structures organize individual contributors around cross-functional workflows (Henk & Fallmyr, 2020) and may reduce TU and TI through improved task clarity and reduced task reliance (Kohlbacher & Reijers, 2013).

The general management problem is that 84% of individual contributors work in functionally specialized companies (Gallup, 2017), where TU and TI undermine efforts to execute cross-functional tasks (Henk & Fallmyr, 2020; Ostroff, 1999; Park et al., 2020). Sayilar (2016) posited that functional specialization could be linked to TU and TI, underscoring the connection between organizational structures and effective individual contributor task execution. Researching TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure is needed to inform senior leaders' structural decisions.

The specific management problem is a lack of research regarding TU and TI's individual contributor experiences before and after a reorganization from functional

specialization to a horizontal organizational structure. The adverse conditions of TU and TI are most dramatic at the individual contributor level, such as complexity understanding task: responsibility, scope, procedures, alignment, urgency, and decision making (Henk & Fallmyr, 2020), indicating a need for the current study. The current study's findings may inform senior leaders' structural decisions by providing new insights into TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure.

Purpose of the Study

The purpose of this generic qualitative study is to explore how individual contributors experience TU and TI following a reorganization from functional specialization to a horizontal organizational structure. The current study's research population consists of 25 individual contributors that have experienced a reorganization from functional specialization to a horizontal organizational structure between 2017 and 2022. In the current study, I will continue to purposively sample these 25 individual contributors or until I reach data saturation. Participants will be selected based on their involvement in the two structures and their willingness to respond to open-ended questions in semistructured interviews. Interview questions intend to understand individual contributor experiences regarding TU and TI before and after reorganizing from functional specialization to a horizontal organizational structure. Data analysis will involve using two approaches; manual coding to carefully report the shared before and after understandings, categories, and themes generated from the gathered data; and the MAXQDA qualitative data analysis tool will be used to generate visualizations of the

data such as word clouds and word frequencies of responses and codes. The study's findings may benefit organizational design decisions by providing new interpretations of TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure.

Research Questions

RQ1: What are the individual contributor experiences of TU and TI before and after the reorganization?

RQ2: How are post reorganization TU and TI perceived by individual contributors relative to their understanding of task: responsibility, scope, procedures, alignment, urgency, and decision making?

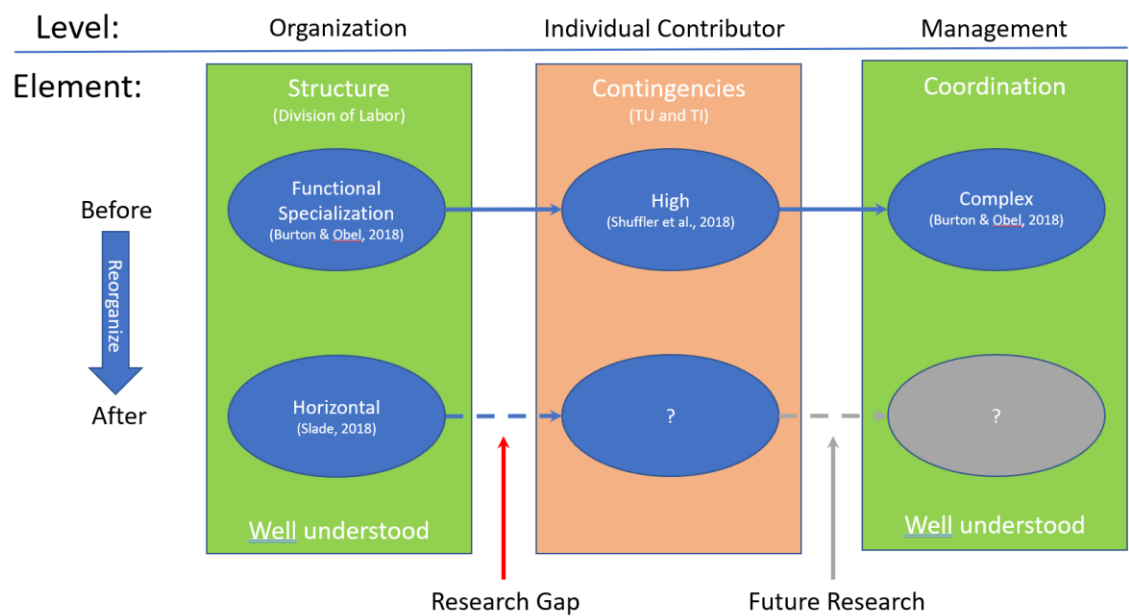
Conceptual Framework

The unique idea that grounds the current study is that horizontal organizational structures may reduce TU and TI for individual contributors while simplifying coordination mechanisms that management deploys to compensate for TU and TI. The sequence of change begins at the organizational level with executive decisions around structure (Burton & Obel, 2018). Structures, such as functional specialization, create contingencies, such as TU and TI, at the individual contributor level that complicates task execution (Shuffler et al., 2018). Contingencies are then addressed at the management level through ongoing coordination efforts to improve the task execution of individual contributors (Desantola & Gulati, 2017). The horizontal organizational structure, which avoids functional specialization (Zelt et al., 2019), is contrasted against the functionally specialized structure to understand contingency-based experiences at the individual

contributor level, as depicted in Figure 1. An exploration of the experiences of managers with the complexity of coordination following a reorganization from functional specialization to a horizontal organizational structure could be addressed as part of a future research project.

Figure 1

Conceptual Framework



Note. Conceptual framework showing pre- and post-reorganization configurations where structure determines TU and TI and the coordination response.

Creating a structure by segmenting individual contributors into teams is an inescapable aspect of any well-established company as it allows for more effective management (Burton & Obel, 2018). However, either by functional specialization or by cross-functional workflows (i.e., a horizontal organizational structure), the method of segmentation is a matter of striking the best balance between the competing demands of

ease of management versus the effectiveness of task execution (Burton & Obel, 2018). Choosing a traditional organizational design, such as functional specialization, creates segregated departments, which leads to TU and TI that is commonly addressed by coordination to reunite individual contributors to execute cross-functional tasks (Giri & Ramakrishnan, 2019). Choosing a horizontal organizational structure creates self-contained teams with all the skills and functional knowledge needed to complete a large segment of the complete cross-functional workflow (Kohlbacher & Reijers, 2013). Exploring TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure is necessary to inform structural design decisions.

Nature of the Study

A generic qualitative, exploratory, snowball sampling research method will be most suitable for the current study. Generic qualitative methods, also referred to as basic, traditional, or pragmatic, are practical and flexible methods of inquiry that are good for inquiring into or interpreting participants' perceptions and experiences in relationship to a practical situation (Caelli et al., 2003; Kahlke, 2014; Merriam & Tisdell, 2016; Patton, 2015; Ravitch & Carl, 2016; Sandelowski, 2000). Snowball sampling is effective in exploratory research and appropriate when members of a certain population are difficult to locate (Babbie, 2017). Researchers commonly adopt the qualitative approach when seeking to interpret participants' real-life experiences to obtain understandings from the data (Yin, 2018). This method is appropriate for the data sought because it will identify individual contributors' experiences regarding TU and TI following a reorganization from

functional specialization to a horizontal organizational structure. The current study's target population is 25 individual contributors that have experienced a reorganization from functional specialization to a horizontal organizational structure at their company from 2017 to 2022. Due to the rarity of this specific type of reorganization, the search for participants will be global. Participant individual contributors must have participated in both the functionally specialized and process-orientated structures. I will identify potential participants through networking, referrals, press releases, industry publications, and academic journal articles and select individual contributors based on the timing of their structural reorganization. I will obtain access to participants by sending an outreach communication through public methods such as email, LinkedIn, or social media. All gathered data will undergo analysis during the research. Data analysis will involve using two approaches; manual coding to carefully report the shared before and after understandings, categories, and themes generated from the gathered data; and the MAXQDA qualitative data analysis tool will be used to generate visualizations of the data such as word clouds and word frequencies of responses and codes. A thorough qualitative data analysis approach can lead to meaningful insights from raw data and interview comments (Hancock & Algozzine, 2017; Yin, 2018).

A quantitative research method is not suitable for the current study. The quantitative method would not allow for a rich inquiry into individual contributors' personal experiences regarding TU and TI following a reorganization from functional specialization to a horizontal organizational structure. Researchers commonly adopt the quantitative method to statistically test a previously stated hypothesis by analyzing

numerical data gathered from a large sample of test subjects (Frankfort-Nachmias & Leon-Guerrero, 2018). As the current study will not include any hypotheses to test, a quantitative approach would not help obtain individual contributors' experiences. The quantitative method will not provide individual contributors' real-life experiences required to develop the needed understandings (Frankfort-Nachmias & Leon-Guerrero, 2018).

An exploratory study design is suitable to support this qualitative study.

Exploratory designs are practical when the researcher's objective is to describe an incident and track resulting outcomes or when attempting to develop relevant hypotheses from the data for further investigation (Yin, 2018). Exploratory designs are useful when investigating distinct situations that researchers have yet to study and are appropriate for use in qualitative studies (Mills et al., 2010). Exploratory designs lack a preliminary proposition or hypothesis due to their rationale and require a clear purpose statement to ensure a successful outcome (Mills et al., 2010).

Other qualitative research designs considered but not selected are action research and phenomenology. The process used for action research involves acting on early findings, which results in ongoing changes to the data being gathered (Ravitch & Carl, 2016) and would not be appropriate for the current study. The current study involves collecting and thoroughly analyzing static data; therefore, action research will not be suitable. A phenomenological design received careful consideration but is also not appropriate for the current study. A phenomenological method could be suitable for the current study, as individual contributors' lived experiences following a reorganization

can serve as a phenomenon. However, a phenomenological design would be too general for the current study. Researchers can apply phenomenology when a phenomenon is either bounded in time and space or unbounded (Ravitch & Carl, 2016). In this study, I intend to investigate events bounded by time and space (Yin, 2018), such as a reorganization; therefore, this design is more appropriate to address the current study's needs.

Definitions

Contingencies: Internal forces directly affecting task execution, summarized as company size, task uncertainty, and task interdependence (Martinsuo & Hoverfält, 2018).

Coordination: The additional efforts (e.g., meetings, communications, plans, control, and decision systems, information systems, etc.) to reintegrate individual contributors that have been separated by functional specialization to complete cross-functional tasks (Cortellazzo et al., in press).

Horizontal organizational structures: A structural design choice within which individual contributors work in multiskilled teams organized around the lateral flow of cross-functional workflow processes (Henk & Fallmyr, 2020).

Matrix organizational structures: A structural design choice with two concurrent dimensions: a controlling vertical dimension and a passive cross-functional dimension, resulting in dual reporting (Burton & Obel, 2018).

Organizational structure: The formal configuration of individual contributors and groups of individual contributors within a company concerning the allocation of resources, task responsibilities, and formal authority (Chatzoglou et al., 2018).

Reorganization: The process of changing the configuration of individual contributors and groups of individual contributors within a company, such as from functional specialization to a horizontal structure (Shafritz et al., 2016).

Task interdependence: The level of task reliance on the knowledge, actions, or authority of individuals from other areas or departments in the organization, commonly associated with functional specialization (Es-Sajjade & Wilkins, 2017).

Task uncertainty: The level of task clarity of the knowledge and skill related to converting inputs into outputs, commonly associated with functional specialization (Leuteritz et al., 2017).

Assumptions

Understanding underlying assumptions is critical to accepting constructs presented in research syntheses (Wolgemuth et al., 2017). The current study includes one such assumption that involves the honesty and candor of participants while answering interview questions. Qualitative research provides the best means of describing participants' lived experiences (Yin, 2018) if they offer complete and honest accounts of their understandings of TU and TI under functional specialization and horizontal organizational structures. The situation under review is understanding individual contributor experiences of TU and TI following a reorganization from functional specialization to a horizontal organizational structure. Therefore, candid, and unbiased responses of conditions under the two structures are essential to obtaining the needed knowledge and answering the research questions. This assumption is necessary as the

alternatives, quantitative or mixed methods research, will not be appropriate for the current study.

Scope and Delimitations

The current study will involve 25 individual contributors from around the world that have experienced a reorganization from functional specialization to a horizontal organizational structure from 2017 to 2022. The current study will obtain understandings of the TU and TI experiences of individual contributors following a reorganization from functional specialization to a horizontal organizational structure. The current study's specific scope will be to seek understandings of individual contributor experiences of the TU and TI benefits or detriments to task: responsibility, scope, procedures, alignment, urgency, and decision making.

I will delimit the scenarios under study to include only two specific organizational structures. The predecessor organizational structure will be functional specialization and will not include other hierarchical structures, such as product, division, or geography. The successor organizational structure will be the horizontal organizational structure and will not include other horizontal or mixed models, such as matrixed, networked, project-based, or hybrid. The delimited contingency conditions in scope for the current study are TU and TI. The contingency condition of company size, while recognized as legitimate contingency factor, will not be a consideration. Applying these delimitations will increase manageability, appropriateness in addressing the problem and research questions, and will isolate the extant literature gap.

The current study entails specific boundaries regarding the population. The population boundary is 25 individual contributors from around the world that have experienced a reorganization from functional specialization to a horizontal structure. Applying this boundary will serve to ensure the manageability and appropriateness of the study. The study's findings are potentially transferable to other individual contributors that have experienced a reorganization from functional specialization to a horizontal organizational structure.

Limitations

The study's potential limitations that may influence the dependability of findings include participant recall and participant biases. Participant recall is a limitation due to the 5-year duration allowed for considering a participant for potential inclusion in the study. Interview questions will involve inquiries into conditions before and after the organizational structure change, so participant recall of the predecessor state is necessary. An individual contributor that experienced the organizational design change in the 5-year range's outer limits will be more likely to struggle to recall the predecessor conditions. Measures to mitigate this limitation will include stressing the need for a historical perspective while prescreening participants, with preference to individual contributors who are confident of their ability to recall the prior environment's conditions.

Participant biases are another potential limitation of the study that could influence the dependability of findings. Participant biases are possible due to each individual contributor's highly personal experience and how the reorganization affected them. Functionally specialized companies include top-heavy, multilevel management structures

that many individual contributors seek in their career advancement. The drive to achieve status, prestige, or respect by advancing upwardly in an organization is a universal human desire (Bendersky & Pai, 2018). Achieving social worth, reputation, and a feeling of being valued are critical to employees (Blader & Yu, 2017) and are commonly achieved through upward advancement. Horizontal organizational structures are flatter with fewer levels of management and an emphasis on individual contributor roles. Participants who had hoped to achieve a management position in their functionally specialized company may be biased against the new structural design based on the association of the change to a loss in their potential career path options. Measures to mitigate this limitation include prescreening participants to ensure a similar role before and after the reorganization. Preference will go to individual contributors who held similar positions before and after. These limitations, although mitigated, may influence the dependability of findings.

Significance of the Study

Significance to Practice

The organizational structure topic is critical for senior leaders as it is an essential aspect of how individual contributors work together to execute cross-functional tasks (Burton & Obel, 2018). Current market conditions are highly dynamic, with high turbulence levels requiring regular organizational adaptations, including task execution improvement, to adjust to environmental complexity (Henk & Fallmyr, 2020). Constant changes and advancements of technology, borderless commerce, global competition, and customer expectations have led senior leaders to seek new ways of improving task execution to remain competitive (Movahedi et al., 2016; Luo et al., 2018). The forces of

evolving marketplaces and customer demands are leading senior leaders to seek new ways to improve task effectiveness through ongoing organizational structure modifications (Cortellazzo et al., in press). Organizational structure is recognized as a tool that senior leaders can use to improve task execution (Henk & Fallmyr, 2020). Recognition of the link between structure and task execution opens new pathways and tools for senior leaders to strengthen task effectiveness, provided they first possess the knowledge of individual contributor experiences of TU and TI under different structural configurations.

Horizontal organizational structures are part of an overarching management philosophy that places a primary focus on cross-functional workflows, or *core business processes*, as the center of organizational importance (Kohlbacher & Reijers, 2013). Proponents of the business process management (BPM) philosophy widely support horizontal organizational structures as an alternative to functional specialization (Henk & Fallmyr, 2020). Horizontal organizational structures align individual contributors around the flow of cross-functional workflows and propose to provide advantages that may reduce TU and TI and simplify coordination. Purported examples of these benefits include faster decision making, a more robust internal and external customer focus, and individual contributor empowerment that results in more immediate execution, higher quality, lower costs, and other benefits (Henk & Fallmyr, 2020). Horizontal organizational structures may provide improved knowledge of task-level operations, allowing for faster organizational responses to dynamic environments (Pradabwong et al., 2017) through reduced TU and TI and simplified coordination. The purported task-related

benefits of horizontal organizational structures deserve further exploration of TU and TI's individual contributor experiences. The information gained from the current study might influence decision-makers in positive ways by exploring individual contributor experiences of TU and TI following a reorganization from functional specialization to a horizontal organizational structure to inform structural design choices.

Significance to Theory

In the current study, I leverage knowledge from SCT, coordination theory, and BPM. Structural contingency theory establishes a fit-based relationship between organizational structures and contingency factors (e.g., TU and TI) where a contingency can lead to adjustments to structure, or structure can lead to contingencies (Donaldson, 2001). The majority of SCT literature considers traditional organizational structures, such as functional, product, divisional, and geographic (Bolman & Deal, 2017; Donaldson, 2001; Sayilar, 2016; Van De Ven et al., 2013) but has yet to consider horizontal organizational structures. The current study potentially contributes to SCT by exploring how structure (e.g., functional specialization) may lead to contingencies (e.g., TU and TI) and by introducing the horizontal organizational structure as an alternative structural design choice.

Coordination theory provides a fundamental understanding for the current study. Coordination represents the additional effort that is applied to overcome TU and TI's challenges, which are introduced by the division of labor (e.g., functional specialization). Coordination theory authors define coordination as *managing dependencies between activities* (Malone & Crowston, 1994) or *the behavior that manages the interdependent*

relationships of dependent activities (Deng et al., 2007). Traditional organizational designs, such as functional, product, divisional, and geographic, were the original focus of coordination (Burton & Obel, 2018; Henk & Fallmyr, 2020). More recent considerations of coordination have involved the separate contexts of horizontal organizational structures and TU and TI (Raveendran et al., 2020; Zelt et al., 2019). If my findings show positive improvements in individual contributor experiences of TU and TI under a horizontal organizational structure, the current study may contribute to coordination theory by offering a pathway for future research into how horizontal organizational structures may simplify coordination.

The management philosophy of BPM promotes *process-aware* management and a division of labor based on horizontal segments of the entire core business process (Pereira et al., 2018). A thorough BPM approach embeds formal process-based roles (e.g., process owner) and responsibilities with horizontal responsibility for cross-functional activities into the organizational structure (Hernaes et al., 2016). Under BPM, organizational structures attempt to provide legitimate process responsibility, process-based work coordination, customer orientation, intra-organizational communication, organizational adaptability (Henk & Fallmyr, 2020), horizontal connections, horizontal communication flows, and horizontal processes (Movahedi et al., 2016). The BPM approach can improve organizational performance, collaborative activities, and coordination (Pradabwong et al., 2017). The current study will contribute to BPM by integrating horizontal organizational structures with SCT and coordination theory to explore TU and TI's individual contributor experiences. If my findings show positive

contributions to TU and TI, the current study may further understandings of the benefits of BPM and horizontal organizational structures.

Separately, SCT, coordination theory, and BPM have been thoroughly and professionally researched and are well understood. The current study fills a gap in the extant literature by combining these research traditions to obtain new knowledge. By exploring SCT's TU and TI following a reorganization from functional specialization to BPM's horizontal organizational structure, I intend to obtain missing knowledge of individual contributor experiences and possibly show how coordination may be simplified. The collective use of these research areas will provide an original contribution and fill an apparent gap in the literature.

Throughout an organization's life cycle, senior leaders face the ongoing challenge of adapting to continuously changing internal and external factors that require effective responses. Selecting the most appropriate organizational structure is one such means of adaptation, and the current study may include new insights to assist with making structural decisions. Academics could potentially use the findings of this study to conduct research in many types of organizations, such as government, education, public administration, nonprofit, or health care. Due to its long history and popularity, functional specialization is familiar to many organizations and industries, regardless of geography, nationality, or language. Thus, an opportunity exists to continue to contribute to coordination theory through studies in these areas. There is also value in extending this work with longitudinal studies to understand how individual contributor experiences of TU and TI under a horizontal organizational structure may change over time.

Significance to Social Change

If the findings of this study reveal new information regarding TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure, this research may contribute to positive social change. The contribution would be informing new understandings of TU and TI's individual contributor experiences that will inform senior leaders' structural design choices and lead to improved company growth and task environments for individual contributors. Reducing TU and TI for individual contributors may simplify the complexity of coordination requirements for senior leaders, allowing for reallocating critical resources to other needs. These improvements may offer senior leaders of entrepreneurial companies' advantages to compete more effectively, create more jobs, and reinforce local economies. More importantly, positive social change will be achieved through these companies by the improved livelihoods of their entrepreneurs and their individual contributors.

Specific recommendations for senior leaders of early-stage companies may include considering the choice of a horizontal organizational structure versus functional specialization, thus reducing challenges with TU and TI while simplifying coordination. These recommendations will be critical to assist senior leaders in growing their companies from entrepreneurial nuclei to where senior leaders may consider a formal structure. An awareness of the horizontal organizational structure must be present so that senior leaders have choices beyond the standard options of function, product, division, and geography described in the traditional organizational design literature. A potential

long-term benefit to positive social change involves wide-scale awareness of the potential advantages of horizontal organizational structures that could support early-stage companies globally. These more efficient and effective companies could further contribute to positive social change by advancing microbusinesses' role in developing economies.

Summary and Transition

Chapter 1 included references to the historical origins, longevity, and popularity of functional specialization as the mainstay of organizational design over hundreds of years and multiple settings. During these formative years, functional specialization experienced popularity and success under slow change and environmental stability. However, the authors of recent studies have called out functional specialization as contributing to TU and TI, which makes it problematic in current environmental and workplace conditions. The chapter included specific challenges with functional specialization and TU and TI related to individual contributor task efficacy.

Senior leaders' choice to use functional specialization as the default means of arranging individual contributors has led to companies relying on coordination mechanisms to address TU and TI. Cross-functional coordination is required to overcome TU and TI's unfavorable conditions as individual contributors execute tasks to achieve company objectives. Advocates of the horizontal organizational structure report task-related benefits that may reduce TU and TI and simplify coordination efforts required by functional specialization. The chapter outlined the potential benefits of horizontal organizational structures; however, a gap exists in the awareness of TU and TI's

individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure. Senior leaders will benefit from this knowledge as it will assist with making more appropriate structural design choices for their companies.

Chapter 2 includes four elements that are critical to the current study. These sections of the literature review include surveys on functional specialization, TU and TI, coordination, and horizontal organizational structures. These sections outline recent learning and development by scholars that contribute to the theory and practice. The fourth element is the literature gap that justifies the study due to the lack of research into individual contributor experiences of TU and TU following a reorganization from functional specialization to a horizontal organizational structure.

Chapter 2: Literature Review

The specific management problem is a lack of research regarding TU and TI's individual contributor experiences before and after a reorganization from functional specialization to a horizontal organizational structure. The purpose of this generic qualitative exploratory study is to investigate how individual contributors experience TU and TI following a reorganization from functional specialization to a horizontal organizational structure. Choosing an organizational design or organizational structure is one of the most critical and challenging decisions any senior leader can make, as that decision determines the division of labor (Burton & Obel, 2018). Most senior leaders structure their organizations by utilizing functional specialization as the preferred means of dividing labor (Gallup, 2017; Giri & Ramakrishnan, 2019; Wellman et al., 2020). Functional specialization, however, creates TU and TI for individual contributors (Shuffler et al., 2018) creating complexity and establishing the need for coordination mechanisms that management must provide to ensure efficient completion of the complete cross-functional workflow (Wall, 2019). A horizontal organizational structure avoids functional specialization by arranging individual contributors around the entire cross-functional workflow (Zelt et al., 2019) and may reduce TU and TI for individual contributors (Schwarz Müller et al., 2018). Knowledge of TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure is needed to inform structural decisions.

This chapter includes four sections. The first is a description of the search strategy used to identify literature and a listing of the search strings. The second is an overview of

the conceptual framework and theory that supports the study. The third is a review of the literature that demonstrates the problem, methodology, and phenomena. Lastly, the chapter concludes with a summary and conclusion.

Literature Search Strategy

The literature search strategy's primary focus for the current study is the content areas of organization theory, organizational design, SCT, coordination, and BPM. The two search methods used are original searches and snowball searches. Initial searches conducted for these materials primarily involved Walden's library databases (Thoreau, Business & Management, Information Technology & Systems, and Psychology), online search engines such as Google Scholar, online stores such as Amazon, and public websites such as <https://www.valuebasedmanagement.net>. Snowball searches included the materials located in the original searches and frequently went several levels deep until leading back to the sources previously identified. This process led to identifying vital academic journals that have become primary sources of literature. The journals that have proven to be the most valuable are the *Journal of Organization Design*, *Academy of Management Journal*, and the *Business Process Management Journal*. The literature most relevant to my study came from these sources.

The searches for BPM materials were the most involved and resulted in the most content. Specific search strings used to locate these materials included *business process management*, *business process orientation*, *process-orientation*, *process-centered*, *process-based*, *process owner*, *process reorganization*, *horizontal organization*, *process-centered organization*, *process enterprise*, *process-focused organization*, and *process*

organization. The results found using these search terms led to new or modified search terms. This search strategy resulted in an expansive array of materials that supported and opposed horizontal organizational structures. The searches for supporting theories originated with mentions made in BPM literature and expanded into other areas through recursive investigation. Several new areas of the theory emerged from other regions. For example, I identified structural contingency theory by reading literature on contingency theory. Specific search strings used to locate these materials included *organization theory, coordination, coordination theory, contingency theory, structural contingency theory, integration, differentiation, specialization, complexity theory, resource view, resource-based view, sustainable competitive advantage, and organizational design*.

Conceptual Framework

Organizational structure has a profound influence on individual contributors' ability to execute tasks effectively. Organizational structure plays an influential role in the sensemaking process of how individual contributors understand their task environment (Bolman & Deal, 2017) as human understanding is reproduced through symbolic reproduction (Andersen, 2019). Structure implies interlocking patterns of mandated interactions (Clément & Puranam, 2017), which individual contributors must operate within. The organizational chart of a functionally specialized organization depicts departmental relationships that act as one of the first artifacts provided to new individual contributors to ground them in their roles. The organizational chart is a significant factor in individual contributors' comprehension of operational norms, including task: responsibility, alignment, and decision-making authority. Structural design choices

should be made with the task environment (i.e., division of labor and coordination) in mind to ensure transparency and optimize individual contributors' understanding (Cortellazzo et al., in press). Optimizing organizational structures requires a high degree of fit between strategy, structure, cross-functional processes, systems, and culture (Van De Ven et al., 2013). These insights validate the importance of organizational structure on individual contributors' understanding of the task environment. In the current study, I will investigate the TU and TI experiences of individual contributors following a reorganization from functional specialization to a horizontal organizational structure to understand their task environment perspectives.

The primary concept grounding the current study is that horizontal organizational structures may reduce TU and TI for individual contributors while simplifying coordination mechanisms that management deploys to compensate for TU and TI. Choosing an organizational structure, which involves deciding the division of labor (i.e., how to portion an entire workflow into sub-tasks), is required to overcome managers' bounded rationality limitations (Burton & Obel, 2018). Senior leaders select from a range of traditional organizational structures, such as functional specialization, as point-in-time strategic decisions (Burton & Obel, 2018), leading to ongoing issues for individual contributors, such as TU and TI. The current study expands beyond the traditional division of labor methods, such as specialization via function, product, division, and geography (Joseph & Gaba, 2019), by introducing horizontal organizational structures.

Functional specialization compartmentalizes individual contributors into departmental teams, which creates task execution challenges for individual contributors.

Central to these challenges are TU and TI, which require compensating efforts to coordinate individual contributors (Henk & Fallmyr, 2020) to ensure alignment of the unique skills, knowledge, and authority of multiple teams to execute cross-functional workflows (Sayilar, 2016). Departmental level conflicts may lead to inter-team and intra-team conflicts that can spread in multiple directions and are difficult to contain (Van Bunderen et al., 2018). Groups purportedly neutral to the specialized departmental structure, such as project managers, provide compensating coordination efforts (Young-Hyman, 2017). The specific objective of compensating coordination efforts is to counteract TU and TI by addressing the complexity individual contributors face while trying to understand task: responsibility, scope, procedures, alignment, urgency, and decision making (Henk & Fallmyr, 2020; Park et al., 2020). Understanding individual contributor experiences of TU and TI following a reorganization from functional specialization to a horizontal organizational structure will provide a basis for future research into the downstream implications for coordination.

Structural contingency theory provides a foundational relationship for the current study. Originating from general systems theory in the 1950s, the basis of SCT is the belief that organizational performance (i.e., individual contributor effectiveness in cross-functional task execution) is the result of a proper fit between contingency factors (e.g., TU and TI) and organizational structure (Sayilar, 2016). In SCT, the existence or development of a contingency factor necessitates a structural change that results in maintained or restored performance if done appropriately and expeditiously. Donaldson (2001) defined three primary contingency factors: the size of the organization, TU, and

TI. The current study focuses on TU and TI's task-related contingencies, as individual contributors most directly experience them. In the original definition of SCT, the causal flow in the fit-based relationship was from the occurrence of a contingency (e.g., TU and TI), to changes in organizational structure, to the restoration of fit and performance (Miner, 2011). However, Donaldson's (2001) assertion that structure may also lead to contingencies provides the critical relationship that the current study will leverage. I will explore SCT contingencies by understanding the TU and TI experiences of individual contributors following a reorganization from functional specialization to a horizontal organizational structure.

A discussion of functional specialization and contingency factors such as TU and TI would not be complete without an explanation of coordination theory. Coordination theory originated in the late 1980s to recognize the need for more effective means of managing dependencies within a system, such as an organization (Crowston, 1997; Malone, 1988; Malone & Crowston, 1994). Coordination theory does not challenge, compare, or recommend specific organizational structures, nor does it associate structures or specialization as a potential cause of dependencies (Molenveld et al., 2019; Wall, 2019; Walsh & Brady, 2019; Wang et al., 2018; Zhou, 2019). Coordination theory is relevant to the current study as coordination is recognized as a given, the default management response to deal with the dependencies created by the division of labor via functional specialization (Walsh & Brady, 2019; Ziegert et al., in press). Coordination follows traditional positivist organizational and management beliefs by promoting adherence to strict rules and specialized command and control tactics as the answer to

solving the TU and TI difficulties individual contributors face from functional specialization (Walsh & Brady, 2019; Ziegert et al., in press). The current study discusses coordination theory and coordination to acknowledge their existence in the organizational literature and their role in organizational dynamics and demonstrate their temporal application as a mitigation following the decision to specialize individual contributors functionally. Thus, in the current study, I seek to isolate individual contributors' experiences with TU and TI following a structural change, outside of any management efforts to provide coordination.

The concept of organizing individual contributors around cross-functional workflows (i.e., a horizontal organizational structure) is part of *business process reengineering* (Davenport & Short, 1990; Hammer, 1990). Business process reengineering (BPR) called for the holistic and dramatic transformation of organizational structures, functions, and cross-functional workflows to increase task execution efficiency and effectiveness (Hashem, 2020). Based on the current study's research, the first formal use of the term *horizontal organizational structure* was by Ostroff (1999). Ostroff expanded upon the prior decade of BPR efforts and offered empirical evidence of the benefits of the new means of organizing individual contributors. The research and literature that originated as part of BPR have since been subsumed as part of BPM, which directly promotes horizontal organizational structures (Pereira et al., 2018). Authors of BPM literature posit that by synchronizing organizational structure with core business processes (i.e., cross-functional workflows), horizontal organizational structures may better support task execution through improved individual contributor connections,

understandings, and interpretations of processes and information (Hernaus et al., 2016; Movahedi et al., 2016; Pradabwong et al., 2017).

Literature Review

Once an organization reaches a specific size, senior leaders must subdivide it into smaller components assigned to different managers to share the responsibility of providing support and management (Burton & Obel, 2018). The subdivision of an organization into smaller segments, referred to as the division of labor (Raveendran et al., 2020), can be done in multiple ways. To this day, the division of labor most commonly follows a functional orientation (Gallop, 2017), resulting in specialized departments with a singular skill or task responsibility, such as Legal, Marketing, Sales, or Service. The choice of dividing labor via functional specialization results in TU and TI (Shuffler et al., 2018) as many functions need to collaborate to satisfy customer demands. The traditional management response to TU and TI is to invest in coordination mechanisms that strive to align individual contributors in the execution of cross-functional workflows (Zelt et al., 2019).

The challenge for senior leaders of functionally specialized organizations is meeting the conflicting demands of organizing versus coordinating (Burton & Obel, 2018). Organizing, which commonly happens first, by functional specialization means grouping individual contributors under a specialized, or single-skilled, manager and typically in the same physical workspace. Coordinating within functional specialization means persuading siloed and physically separated individual contributors to work with other areas to complete the cross-functional workflow (Joseph & Gaba, 2019). Exploring

TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure will reveal needed knowledge to inform structural decisions.

Functional Specialization

Functional specialization stands out as the most prominent example of organizing (Gallup, 2017), and its use dates back thousands of years (Ostroff, 1999). According to Shafritz et al. (2016), some of the oldest examples of functional specialization and its supporting management philosophy are military organizations. As early as 500 BCE, authors of military literature described functional specialization as a critical element to military success. The military force that maintained the Roman Empire from 27 BCE to 476 AD was functional specialized (Morgan, 2006). Furthermore, Machiavelli, who participated in Italy's political and military affairs during the 1400s and 1500s, stressed the need for functional specialization as a preferred method of organizing in government and armed forces (Morgan, 2006). The extensive history of the military application of functional specialization as the means of organizing provides a point of origin for using this approach as a staple of organizational design.

The military application of functional specialization is essential for many reasons. The military has been an influential and prolific part of most societies since the beginning of recorded history, which resulted in widespread awareness and adoption of the use of specialization (Shafritz et al., 2016). The classical management theory principles of planning, organization, command, coordination, and control, come from military methods (Morgan, 2006). The military application of functional specialization is an archetype that

is still prominent in both civilian and military settings. The military archetype can receive credit, or blame, for the operational models and management approaches of early industrial organizations that readily adopted functional specialization (Shafritz et al., 2016). The first industrial revolution, which started in Europe in the 1600s and the United States in the 1700s, maintained the military mindset. The principle of division of labor via functional specialization introduced by Adam Smith in the late 1700s is highly recognizable when viewed through a historical military lens. The popularity of the military archetype of using functional specialization led to the parallel thinking that senior leaders should organize commercial organizations by following the same philosophy.

Notable authors of the 19th and early 20th centuries carried this momentum forward by signing onto and promoting Adam Smith's ideas as the one best way to organize and manage. In the 1830s, respected mathematician and inventor Charles Babbage advocated for the strict division of labor as the best means to organize and manage by suggesting that senior leaders closely tie task assignments to skill level and save the most challenging tasks for the most skilled (Morgan, 2006). In the early 1900s, Fredrick Taylor solidified the adoption of the division of labor via functional specialization through the scientific management movement (Shafritz et al., 2016). Named for Taylor, *Taylorism* became well known and attracted many followers who tried to enhance and extend the approach, which furthered its acceptance (Movahedi et al., 2016). Max Weber supported Taylorism and the division of labor by introducing bureaucracy as the best means of organizing and managing to ensure benefits such as

precision, speed, regularity, reliability, and efficiency through the division of labor, rules, and regulations (Morgan, 2006). Functional specialization has had a powerful influence over senior leaders for thousands of years and has become the default means to organize. However, it is essential to consider the context in which it attained its prestige.

In the context of the time frame ranging from before the common era to the beginning of the first industrial revolution, functional specialization served organizations well by quickly and effectively converting untrained recruits into skilled and efficient individual contributors in their respective specializations (Shafritz et al., 2016). Specialization also afforded close monitoring and control by functional managers to ensure precise workforce execution and quick correction of anomalies (Morgan, 2006). From the industrial revolution to the early 20th century, functional specialization continued to contribute to the manufacturing-based economy that dominated that period. A hyper-focus on task optimization and individual contributor efficiency supported the needs of mass production of product offerings that were limited and slow to change (Morgan, 2006). The slow pace of change in technology, production, markets, customer preferences, and competition left ample time for senior leaders of functionally specialized organizations to make decisions, introduce product innovations, and reconfigure their means of production (Shafritz et al., 2016). Understanding the contextual elements that supported the early success of functional specialization helps explain why it had such a prolific following; however, it has more recently come under harsh scrutiny as a useful organizational model for modern commercial institutions in a knowledge economy (Burton & Obel, 2018). Hyper-changes in technology, markets, competition, and

customer preferences have altered the context for how senior leaders need to organize individual contributors to support task execution in a continuously changing environment.

Functional specialization is associated with unfavorable conditions, such as TU and TI (Shuffler et al., 2018; Young-Hyman, 2017). In the worst cases, the strict command and control management mindset that accompanies functional specialization can be dehumanizing to individual contributors (Snow et al., 2017). By treating individual contributors as voiceless, interchangeable parts, functional specialization can lead to low morale, apathy, inferior product or service quality, and absenteeism (Morgan, 2006). Under functional specialization, authority figures maintain control over task designs and expectations, limiting individual contributor input and preventing high-quality task designs that improve the individual contributor experience (Parker et al., 2017). The fragmented or siloed organizational structure of functional specialization can result in *segmentalism*, which refers to the compartmentalization by specialization that creates mental and physical barriers to effective and efficient communication and operation (Emmenegger & Seitzl, 2019). Segmentalism can also result in a lack of process awareness and ownership, a *that's-not-my-job* attitude, departments working against each other's interests, and a myopic sense of responsibility (Pheng & Omar, 1997). These conditions are problematic for individual contributors as some can value their task-based contributions to the broader organization more so than income, job security, and career advancement (Carton, 2018).

Overcoming functional specialization's unfavorable conditions requires specific measures. Extensive and explicit communications are necessary to overcome alignment challenges that reduce all individual contributors' potential sum effectiveness (Nawata et al., 2020). Careful application of task assignments is required to resolve potential status contests and provide *psychological safety*, a human evolutionary mechanism to detect threats (Lee et al., 2018). Proactive management of departmental boundaries is necessary to avoid *fault-lines* that can reduce task performance, creativity, and decision-making (Spoelma & Ellis, 2017). Although functional specialization once received attention as the one best way to increase mass production in the age of the manufacturing economy (Mathieu et al., 2017), it is not effective in the age of the knowledge economy where the focus is on collaboration along cross-functional workflows (Wellman et al., 2020) to satisfy customer demands. Functional specialization contributes to creating environments with high TU and TI that detract from effective task execution by interfering with individual contributors' ability to understand and execute tasks effectively.

There are implications from functional specialization on fulfilling cross-functional workflows. Tensions can exist for individual contributors of functionally specialized organizations due to the opposing forces of direction from specialized leadership versus direction from coordination efforts to fulfill core business processes (Ostroff, 1999). This conflicting arrangement results from the need to expend additional effort to coordinate individual contributors' activities from many specialized functional departments into teams that must work together to execute tasks to complete core business processes (Turkulainen & Ketokivi, 2013). Systems of coordination must serve as mechanisms to

regulate the complexity created by functional specialization and, therefore, must achieve the proper degree of *requisite variety* by becoming as complex as their environment (De Toni & De Zan, 2016). A complex environment coupled with complex coordination systems is a primary contributor to TU and TI.

Individual contributors within functionally specialized organizations are subject to conflicting demands and complexity (i.e., top-down command and control coupled with cross-functional coordination). Individual contributors of functionally specialized organizations typically have no voice in, or responsibility for, cross-functional workflow design or issue resolution (Tregear, 2016); therefore, they are powerless to change the task environment. Individual contributors expect that their formal leaders understand cross-departmental interdependencies and have created a suitable task environment (Wellman et al., 2019) only to find that they must learn how to navigate on their own. Members of functional departments can become hostile toward coordination efforts due to competitiveness or a perceived threat to their territory or authority (Chang et al., 2017; Hammer & Stanton, 1999). Extreme attempts to overcome coordination challenges, such as using a matrix organization, can create new conflicts and complexity as problems with loyalties, responsibility, commitment, and decision authority clash with coordination efforts (Bolman & Deal, 2017). The success of functional specialization relies on *explicit* communication among individual contributors (i.e., coordination); however, *implicit* communication among individual contributors (i.e., anticipating intent or actions and knowing when to act without prompting) is better at supporting task execution (Nawata et al., 2020). Functional specialization draws the attention of individual contributors away

from their cross-functional workflow task assignments (Young-Hyman, 2017) and obscures their view of, and concern for, their customers (Van Assen, 2018). As an organizational structure, functional specialization poses challenges for the effective execution of cross-functional workflows.

There are implications from functional specialization on organizational culture. Most organizations have some form of corporate culture with subcultures, all comprised of multiple patterns, including beliefs, social norms, rules of behavior, rituals, and shared meaning systems (Morgan, 2006). Researchers have shown that formal organizational structures influence these patterns and, in the case of functional specialization, so does the coordination system needed to bring specialized individual contributors together to execute cross-functional workflows (Burton & Obel, 2018; Chatzoglou et al., 2018). Due to TU and TI's influences on task execution, functional specialization has a strong negative effect on culture, as demonstrated in the 70% failure rate of attempts to change culture due to the failure to address the mode of operation within functional specialization (Morgan, 2006). Higher degrees of functional specialization result in a culture of superficial harmony with hidden underlying conflicts over resources, task assignments, staff, and decision power (Ostroff, 1999).

Researchers widely consider culture's importance to effective task execution performance to be as significant as leadership, strategy, structure, and systems (Almatrooshi et al., 2016; Van De Ven et al., 2013). Successful organizations such as Amazon have a culture that encourages individual contributors to think of every day as the organization's first to promote innovation (Euchner, 2017). A structurally derived

causal relationship exists between functional specialization and negative cultures that inflict damage via TU and TI, as noted by the frequently cited quote credited to management consultant Peter Drucker: “culture eats strategy for lunch” (Euchner, 2017, p. 10). This quote points out the importance of the influence of negative cultures on critical aspects of task execution.

There are implications from functional specialization on strategy. Corporate strategy is a *human construction* or the *product of willful actions* by senior leaders (Wowak et al., 2017), demonstrating that strategic decisions are limited to the knowledge leaders possess. The selection of an organizational structure is one such strategic decision that directly impacts task execution and individual contributors. Effective task execution from within a functionally specialized structure requires compatibility across the elements of strategy, structure, and cross-functional workflows with effective management of boundary interfaces between departments to avoid competition for control or credit (Teece & Linden, 2017). Core business processes (referred to as cross-functional workflows under functional specialization) link strategy and operations (Naslund & Norrman, 2019). Business processes, measured sets of activities designed to produce a specific output, are the foundation by which an organization does what is necessary to deliver value for its customers (Dijkman et al., 2019). Before executing their strategy, senior leaders of functionally specialized organizations must invest time and energy to translate or decompose top-level strategy into personalized plans, schedules, and task assignments for each functional department (Gębczyńska, 2016). Departmental managers must then translate or decompose departmental-level strategy into task

assignments for each level of management and each individual contributor (Gębczyńska, 2016). The failure rates of strategic initiatives, which can reach as high as 70% (Candido & Santos, 2019), may be explained by the need to decompose strategy for functional execution with the hope that the net reconstitution of actions by all functions, all levels, and all individual contributors will equate to the intended outcome.

Common reasons cited by researchers for the failure of strategic initiatives include issues with communication, commitment, fragmented actions, conflicting goals or priorities, ambiguous responsibilities, siloed behavior, sub-optimized actions, ineffective culture, and lack of departmental management support (Kraaijenbrink, 2019). Attempts to resolve these differences can lead to polarized coalitions that become preoccupied with meeting the narrowly defined departmental goals for their specific function (Morgan, 2006). Departmental managers' inability to interpret strategic context properly or prioritize task design over other factors complicates follow-through on strategic execution from within functional specialization (Parker et al., 2017). The ability to execute strategic change initiatives successfully is fundamental to an organization's success. By its very design, functional specialization forces senior leaders to bifurcate strategy into functionally relevant elements that are subsequently localized by siloed perceptions and preferences and further dissected into smaller objectives for each individual contributor. Execution then occurs based on these highly segmented and interpreted portions of what originated as a single logical pursuit hoping that the sum of these federated efforts adds back up to the desired result. Functional specialization adds complexity to strategic execution that has implications for individual contributors.

There are implications from functional specialization on innovation. An innovative organization requires an environment where senior leaders have designed an environment conducive to individual contributors (Kheirandish & Mousavi, 2018) to propose bold ideas that challenge the status quo and execute on those ideas with some degree of regularity (Euchner, 2017). Innovation can be synonymous with organizational change or growth and is therefore critical to adapting to environmental turbulence (Joseph & Gaba, 2019). Within functional specialization, senior leaders and departmental managers seek to enforce strict compliance, loyalty, regulation, and discipline (Arif, 2016) by imposing rigid rules and regulations on individual contributors that emphasize the importance of following specialized commands versus trusting their instincts (Giri & Ramakrishnan, 2019). The net effect of specialization with command-and-control management act as a tax on individual contributors that destroys motivation, loyalty, and innovation (Martela, 2019).

Functional specialization is not suitable to host innovation effectively (Tushman et al., 2010); therefore, it prevents companies from achieving growth opportunities through individual contributor innovations such as developing new high-quality products and services (Almatrooshi et al., 2016; Euchner, 2017). Creating a favorable environment, including effective task designs (e.g., activities, relationships, and responsibilities), is a precursor to effective task execution and innovation (Parker et al., 2017). Even the most elaborate or enticing individual contributor incentives or freedoms to encourage innovation are likely to fail under the overbearing conditions of functional specialization (Tushman et al., 2010). Functional specialization works against efforts to

innovate by contaminating the task environment intended to support new ideas and inventions.

The general implications of functional specialization on individual contributors are well understood; however, TU and TI's implications are not as clear. Functional specialization may directly and negatively influence the task environment due to several conditions. Restrictive task segmentation by narrow knowledge areas results in poor task discretion, low job variety, high task complexity, and limited opportunity for broader skill development (Parker et al., 2017). Functional specialization can increase conflicts between departments due to conflicting priorities (Greer et al., 2018). Departmental managers in functionally specialized organizations do not believe that individual contributors need to know much about the strategy or complete cross-functional workflow (Martela, 2019). Managers assume that if the individual contributors comply with their specialized direction, the work product will contribute somehow (Martela, 2019). Senior leaders of functionally specialized organizations hold all decision-making power and consider themselves best fit to design individual contributors' tasks. Senior leaders also commonly dismiss lower-level individual contributors, who they believe are limited in knowledge, problem-solving abilities, and decision-making (Joseph & Gaba, 2019). Weber's classical definition of the bureaucratic manager as a technical expert who should control, govern, and lead organizations in a rational manner (Martela, 2019) displays negative sentiments towards individual contributors.

Functional specialization has been demonstrated to be unsuitable as an effective environment for task execution by individual contributors. Researchers have proven that

specialization is contradictory to effective task execution and call for senior leaders to solve the problem of organizing by simultaneously addressing the demands of structure, task design, technology, rewards, and information flows (Parker et al., 2017).

Establishing a positive working environment that optimizes task execution requires new ways of organizing to unleash individual contributor potential, self-directedness, and bottom-up innovation not constrained by obstacles (Martela, 2019). The horizontal organizational structure serves as a new way of organizing that holds the potential to improve individual contributor experiences of TU and TI.

Task Uncertainty and Task Interdependence

Task uncertainty and task interdependence share a rich history. Appreciating the rich theoretical and practical origins of TU and TI requires a retrospective view into antiquity. Indications of the division of labor via functional specialization to organize and manage large numbers of people's efforts appear in biblical references in 1491 BCE (Shafritz et al., 2016) and military references in 500 BCE, 27 BCE, and 1400 AD (Morgan, 2006). The military model of organization and management focusing on task specialization, strict role definitions, and specialized decision-making represents an archetype that has influenced scholars and practitioners for thousands of years (Shafritz et al., 2016). Military ways of thinking appear in more recent examples, such as the industrial revolution of the 1600s and 1700s that used the principles of functional specialization as a model for how to organize and manage factories (Kreager, 2017). This rich history culminated in the early 1900s under the heading of scientific management, which advocated a positivist, one-best-way to organize and manage, thus marking the

beginning of the classical organization and management theory that still influences scholars and practitioners (Bolman & Deal, 2017). Classical organization and management theory, and the use of functional specialization, were predominant forces that sustained the attention of scholars and practitioners well into the 1940s when new ways of thinking started to emerge.

Academics started to challenge the teachings of the classical school beginning in the mid-1940s by introducing new ideas, methods, and research areas that would mark a turning point for how senior leaders think about organization and management, thus setting the stage for TU and TI. The movement, referred to as neoclassical organization theory, levied several criticisms on the classical school and provided a foothold for new ways of thinking (Shafritz et al., 2016). Neoclassical thinkers sought to challenge the classical school's one-best-way methods, which they believed had represented a style of thought that had become a psychic prison ensnaring scholars and practitioners for hundreds of years (Morgan, 2006). Criticisms of classical organization theory existed long before the neoclassical era, such as observing that functional specialization created *office factories* that treated individual contributors like automatons (Morgan, 2006), resulting in human impacts such as alienation, burnout, and turnover. Another criticism was that classical thinking was based on intellectual hypotheses and not empirical evidence, which led to new research investigations that fostered the neoclassical agenda (Shafritz et al., 2016). By the mid-1940s, the classical school was facing a mounting body of conflicting thought that became unstoppable.

Attempts to reestablish classical thinking appeared as late as 1947. Weber's bureaucracy theory, with its rational-legal authority, policies, rules, procedures, and ideal administrative, organizational form, sought to defend classical thinking but also extended organizational research into investigations of the task environment, thus initiating our understandings of TU and TI (Van De Ven et al., 2013). The classical way of thinking, which saw organizations as closed systems living and dying in isolation, faced a challenge from general systems theory. Bertalanffy's general systems theory (GST) argued that organizations are more like living organisms, which senior leaders should consider holistically as open and adaptive in the context of their environment (Sayilar, 2016). Organizations became recognized as open systems whose success and failure depended on managing dependencies with their external environment (Shipilov & Gawer, 2020). Early GST authors saw organizations as complex, social environments regulated by the principle of self-maintenance (Malecic, 2017) and demonstrated how an environmental factor (i.e., structure) can influence a task or process factor (i.e., individual contributor interactions). The 1950s also included social psychologists' investigations into decision-making in functional versus participatory organizational structures (Donaldson, 2001). Research into both GST and decision-making in the 1950s led to the concept of contingency-based relationships, which set the stage for organic organizational theory. The neoclassical work of the 1940s and 1950s represented a transitional period that marked the classical school's end of dominance. Neoclassical thinking introduced new ways of thinking that spawned organization and management theories more supportive of individual contributors.

The early 1960s marked the introduction of three primary foundation blocks of SCT, which built off the momentum of the neoclassical thinking style that dominated the prior decade. The three SCT areas that provided TU and TI's basis were the human relations school of thought, the Aston Program of studies, and Burns and Stalker's seminal work. Research and literature on the human relations school (also known as human resource theory or organizational behavior) began well before the neoclassical era. However, the human relations discipline did not receive proper attention due to the classical school's unquestioned dominance (Shafritz et al., 2016). Examples of early work that would receive recognition later include Follet's 1926 seminal work, "*The giving of orders*," which detailed participatory leadership between managers and individual contributors, and Mayo's 1927 work on the Hawthorne studies, which introduced the dynamics of interpersonal relationships and group dynamics in the workplace (Shafritz et al., 2016). Maslow's 1943 hierarchy of needs, which provided a structure of fundamental motivations of all people (Bolman & Deal, 2017), and McGregor's 1957 Theory X and Theory Y management styles, which described how assumptions could become self-fulfilling prophecies (Morgan, 2006) contributed to the human relations school. The full body of literature considered under the human relations school heading is outside the current study's scope. Regardless, it is summarized here as leadership, motivation and empowerment, individual and group dynamics, self-directed teams, effects of the task environment, power and influence, and organizational change (Donaldson, 2001; Shafritz et al., 2016). The human relations school directly challenged classical thinking and advocated for management principles that contrasted with their long-held beliefs

(Donaldson & Luo, 2014). The human relations school was essential to the beginnings of SCT, TU, and TI, providing legitimacy to the challenges of the individual contributor experience (i.e., task execution) and furthering the importance of seeing the organization holistically as an organism affected by internal and external forces.

The Aston Program of studies, which originated in the early 1960s, represents the second foundation block that heavily influenced SCT, TU, and TI authors. I refer to Aston, named for the University of Aston in Birmingham, England, as a program, as it encompassed three studies over many years originating with the Aston Study in the early 1960s, followed by the National Study started in the late 1960s and finishing with international research in the 1980s (Donaldson, 2001). The Aston Study was led by a psychologist and a sociologist who respected industrial sociology as a legitimate tradition; therefore, their study was designed to investigate sociological issues and theories conducted using psychological methods (Donaldson & Luo, 2014). The Aston Study was an inductive, comparative investigation of structural variables across multiple organizations and multiple analysis levels: organization, group, and individual (Donaldson & Luo, 2014). The classical school and Weber heavily influenced Aston researchers; therefore, they originated their work by investigating Weber's bureaucratic organizational structure variables of specialization, formalization, standardization, and centralization (Sayilar, 2016). The Aston study's design demonstrates that researchers tried to normalize classical, positivist, bureaucratic thinking (via Weber's variables) with neoclassical, organic, human relations thinking (via the inductive, sociological lens), which is in line with the prevailing schools of thought and influences at that time.

The Aston Study's four essential characteristics (i.e., its context, methods, focus, and findings) contributed to its influence on the early authors of SCT, TU, and TI. The Aston Study context was a time when well-established traditions and techniques faced challenges, and new ones were beginning to take hold. The study's designers were careful to respect a multidimensional view without taking sides and crafted a survey that would gain acceptance from the majority (Donaldson & Luo, 2014). The methods used for the study also respected long-standing quantitative techniques but also incorporated qualitative techniques that were gaining acceptance (Ravitch & Carl, 2016). Aston researchers investigated Weber's variables following quantitative methods, such as a large sample of 52 organizations and multivariate analysis, while also using qualitative methods, such as an inductive study with no hypotheses to test, individual contributor interviews, and in-person observations (Donaldson & Luo, 2014).

The Aston Study's focus, which was the variables of organizational structure, external influences, and performance, had the most direct effect on SCT, TU, and TI authors by drawing attention to new relationships and interdependencies (Donaldson, 2001). In the Aston Study, some of the author's findings supported Weber, such as bureaucratic administration leading to effectiveness and increased size leading to bureaucracy, while others departed from Weber, such as the bureaucratic, structural form being dismissed as a rederivation of classical views (Donaldson, 2001; Donaldson & Luo, 2014). The Aston Program made extensive contributions to organizational research, such as remaining more committed to methods than theory (Donaldson & Luo, 2014) and leading to the realization that organizations are complex organisms that must be viewed

holistically with consideration for their internal task environment (Sayilar, 2016). The Aston Program, a model for combining old and new to arrive at innovative learnings, contributed to SCT, TU, and TI's general momentum.

The third primary foundation block of SCT, TU, and TI was Burns and Stalker's (1961) seminal work, which gave legitimacy to nonclassical organizational structure forms. Burns and Stalker described organizational structure as a choice that exists along a continuum from mechanistic to organic extremes based on external conditions. Based on classical organization theory, mechanistic structures are most effective when technological and market change levels are low; however, it can also instill a culture where individual contributors become psychologically dependent on managers, thus stifling innovation (Donaldson, 2001). Based on human relations theory, organic structures benefit from being most effective when technological and market change levels are high and allow high levels of individual contributor participation, initiative, responsibility, discretion, and flexibility (Donaldson & Luo, 2014). Individual contributor flexibility leads to organizational flexibility and allows all organizational structure dimensions to adjust and redefine tasks to deal more effectively with environmental change and uncertainty (Carpini et al., 2017; Morgan, 2006; Van De Ven et al., 2013). The notion of individual contributor and organizational flexibility is a critical component of both GST and organic theory, as the basis of adaptation is necessary to adjust to environmental change.

Building on prior research, Burns and Stalker (1961) also considered multiple analysis levels: organization, group, and individual. They linked internal effects to

external environmental conditions as the root cause, thus seeing organizations as open systems (Donaldson, 2001). Burns and Stalker focused on analyzing variety in organizational designs and establishing the conditions that drove variation (Van De Ven et al., 2013) by pointing out the compatibility-based relationship between strategy, structure, technology, people, and environment (Morgan, 2006). One of Burns and Stalker's key findings was that open and flexible organization and management styles are necessary to adapt to high environmental change levels (Morgan, 2006). Unlike the Aston Study, Burns and Stalker were more directly in conflict with classical thinking by challenging the one-best-way thinking of organization or management with its high levels of functional specialization, precise and rigid roles, and command and control management (Van De Ven et al., 2013). Burns and Stalker's work is one of the most frequently cited studies as an originating source of SCT, TU, and TI (Donaldson, 2001; Donaldson & Luo, 2014; Lawrence & Lorsch, 1967b; Miner, 2011; Morgan, 2006; Van De Ven et al., 2013). Researchers in the early 1960s continued the neoclassical way of thinking by opening new avenues of inquiry that further challenged the classical school while exploring new areas, including the potential for a new realm of organizational structures. As foundational blocks, the human relations school, the Aston Program, and Burns and Stalker provided the genesis of SCT, TU, and TI.

The work leading up to and including Burns and Stalker set the stage for the official introduction of contingency theory, which Minor (2011) assessed as an amalgamation of other approaches that utilize the notion of fit or congruence. Lawrence and Lorsch (1967b) officially introduced the term *contingency theory of organizations* in

the late 1960s. As part of their work on contingency theory, Lawrence and Lorsch posited that structural design is an optimization problem of balancing the forces of external environmental demands with the forces of internal *differentiation* and *integration* (Turkulainen & Ketokivi, 2013; Van De Ven et al., 2013). As used in the current study, the term differentiation is considered synonymous with specialization, and the term integration is considered synonymous with coordination. Hackman and Oldham (1975) framed the structural optimization problem of contingency theory as maximizing individual contributor motivation and performance by designing jobs that satisfy the demands of the task and the growth needs of workers, which requires balancing technological requirements with human needs (Van De Ven et al., 2013).

Contingency theory research continued well past the 1960s and went beyond structural and environmental investigations. Fiedler (1967) originated the contingency theory of leadership with an inquiry into interpersonal styles as an instrument to study the relationship between leadership and group performance (Donaldson, 2001). Fiedler focused on behavioral issues, executive styles, organizational climate, and executive tendency and found that other employees' characteristics, structural relations, job definitions, and dominant norms such as rewards and control systems in organizations shape individual contributor behavior (Sayilar, 2016). Despite a difference in focus, Fiedler's work supports the SCT observation that structural and task-level characteristics influence individual contributor behavior and performance.

The Aston Group's national study introduced the contributions of interdependence and strategic choice (Donaldson & Luo, 2014). Interdependence

describes the level of task interconnectedness between the differentiated areas or functional departments (Donaldson, 2001). Strategic choice posits that managerial discretion, moderated by intervening human mechanisms, influences the selection of structural options when attempting to fit structure to contingency (Donaldson & Luo, 2014). Mintzberg introduced contingency theory's configuration perspective with his typology of five organizational models: simple structure, machine bureaucracy, professional bureaucracy, divisional form, and adhocracy (Van De Ven et al., 2013). Mintzberg claimed that the closer an organization is to one of these ideal types, the more effective it will be. These contributions helped advance contingency theory in meaningful ways; however, Donaldson stands out as a key figure.

Donaldson received several acknowledgments, such as being a leading SCT author (Minor, 2011), the guardian of contingency theory (Van De Ven et al., 2013), and a self-proclaimed strong defender of the study for 30 years (Donaldson, 2001). Donaldson's most recent work in 2001 served as his most definitive position on the contingency theory of organizations (Minor, 2011) and was a significant influencer on other SCT authors. Donaldson's (2001) seminal work clarified the essence of contingency theory through the assertions that: SCT represents a fit-based relationship between organizational structure and contingencies; SCT contingencies consolidate as TU, TI, and size; structural configurations considered by SCT include only functional, product, divisional, and geographic; all contingencies are internal and direct; and that the possibility of structure also causing contingencies is possible through what he referred to as *reverse causality*. Donaldson's work provides the needed elements to explore

individual contributors' TU and TI experiences following a reorganization from functional specialization to a horizontal organizational structure.

The work on contingency theory clarified the definition and conceptualization of an organization. Lawrence and Lorsch's (1967a) definition of an organization, a system of interrelated behaviors of individual contributors performing a complete workflow segmented into several distinct subsystems, each serving a portion of the whole task with the efforts of each subsystem unified to achieve adequate performance of the entire system, alludes to the presence of specialization. Sayilar (2016) defined an organization as a complex set of interdependent parts comprising a whole, with each part contributing and receiving something from the whole. Regardless of definition, Van De Ven et al. (2013) called for more creativity in organizational designs to support operational flexibility by synchronizing strategy, structure, systems, and culture. A critical donation of SCT was recognition of organizational structure's influences on individual contributors and task execution.

Through the lens of SCT, understandings of organizational structure took on new meaning. Structure was no longer considered an output of the management process but a practical tool to generate specific results (Sayilar, 2016). Environmental complexity and market dynamics required organizational structure to address the cognitive processes of sensemaking, innovation, socialization, and politics (Van De Ven et al., 2013) for individual contributors. Structure could be used to optimize knowledge acquisition and communication to increase information processing capacity in difficult and uncertain times (Joseph & Gaba, 2019). Senior leaders and functional managers were encouraged

to: support dramatic changes in structure; seek to better the entire organization; place the greater good over personal interests (Sayilar, 2016); overcome ignorance, apathy, and reluctance in the selection of more appropriate structures (Donaldson & Joffe, 2014); and to understand that organizations are more effective when their structures and processes are internally coherent and fit their environmental demands (Van De Ven et al., 2013). Structural contingency theory research changed the conceptualization of structure from a static and assumed aspect of the organization to become a dynamic tool to improve individual contributors and company conditions.

Contingency theory research expanded the definition and understanding of differentiation. Differentiation, or specialization, is the direct result of the division of labor (Burton & Obel, 2018) first utilized in militaries and during the industrial revolution (Shafritz et al., 2016), which calls for the separation of roles and responsibilities along a standard dimension such as function, product, division, or geography. Most individual contributors still work in a functionally specialized environment (Gallup, 2017). Senior leaders use differentiation to segment the organization to cope with various tasks within the complete system (Lawrence & Lorsch, 1967a). Differentiation results in groups of individual contributors that perform different parts of the overall work and are bound to one another by interdependence (Raveendran et al., 2020). Differentiation, which is a cornerstone of the organizing process, heavily influences individual contributors' performance by creating power imbalances that affect perspective-taking, motivation, and social identification (Wellman et al., 2020). More significant differentiation among individual contributors spurs social comparisons and

subsequently diminishes social relationships' quality and erodes performance (Yu et al., 2019). Differentiation allows for easier management; however, it directly impacts individual contributors, which senior leaders address through integration.

Contingency theory research expanded the definition and understanding of integration. Integration, or coordination, represents the additional effort needed to compensate for differentiation. Definitions of integration include the: effort expended to achieve task unity across segmented areas to accomplish the organization's complete task by enforcing rules, integrating resources, or integrating departments (Lawrence & Lorsch, 1967a); effort to overcome organizational and task complexity resulting from specialization (Turkulainen & Ketokivi, 2013); and a means of conflict resolution that is dependent on effective communication and translation between functions (Minor, 2011). Organizations must achieve *requisite integration* where the level of complexity of integration efforts must be equal to or greater than differentiation (Lawrence & Lorsch, 1967a). The amount of integration needed is contingent on or moderated by the degree of complexity, with more complex organizations becoming more crucial to integrate and more challenging to integrate (Turkulainen & Ketokivi, 2013). Integration efforts by individual contributors from outside the specialized departments can create political tensions due to hidden agendas related to power, autonomy, interdependence (Morgan, 2006), or differing individual contributor *orientations* (Lawrence & Lorsch, 1967a). Senior leaders face the challenges of deciding how to structure, differentiate, and integrate; however, these decisions have implications for individual contributors who share diverse orientations.

Contingency theory research expanded the definition and understanding of how integration can be difficult for individual contributors based on diverse orientations. Lawrence and Lorsch (1967a) identified cognitive and normative orientations related to structure (e.g., departmental programs, controls, and rules), goals (e.g., departmental goals versus task goals), time (e.g., the cycle time from task execution to feedback), interpersonal (e.g., values towards relationships versus task accomplishment), and behavioral (e.g., beliefs toward confrontation versus smoothing). Individual contributors from different specializations are likely to possess different orientations, which can cause conflicts during integration. Orientations can become exacerbated by perceived or real differences in positional status (i.e., respect, prestige, admiration, or esteem) or political power (Greer et al., 2017). Conflicting messaging from the functional orientation (i.e., departmental reporting) and one from the cross-functional workflow orientation (i.e., task coordination) can lead to contradicting or *double-blind* communications that cause depression, burnout, and absenteeism for individual contributors (Kutz, 2017). Individual contributors also use social cues to form expectations about contributing and organizing task-related interactions (Bendersky & Hays, 2017). These implications can become problematic as individual contributors think, feel, and act based on their mental representations of their environment (Yu et al., 2019). As human beings, individual contributors are subject to personal interpretations and reactions resulting from their environment and experiences. The human relations school and contingency theory research contributions contradicted classical organization theory, which treated individual contributors like interchangeable parts in a machine. These insights further explain the

challenges individual contributors face when working in functionally specialized organizations and articulate the multidisciplinary approach needed to provide meaningful insights into their experiences.

Interdisciplinary research further reinforced contingency theory. Van De Ven et al. (2013) used complexity theory to extend SCT analysis beyond fit to adaptation methods, self-organization, emergent behaviors, and local action as a more appropriate response to an increasingly knowledge-intensive global economy. Systems theory authors posit that specialization can create *systems blindness*, which refers to the inability to sense and understand the existence of the larger organizational ecosystem or objective due to poor relationships between subgroups or departments (Bolman & Deal, 2017). Chaos and complexity theorists posit that specialization can represent a complex system that has fallen under the influence of two *attractor patterns* with individual contributors caught between two competing contexts where the dominant context defines behavior (Morgan, 2006). Siloed thought, specialized action, and incentives that reward individual contributors for honoring departmental objectives that result in suboptimal outcomes can obstruct organizational learning processes (Van De Ven et al., 2013).

Specialization can obscure sense-making processes of understanding roles, responsibilities, task execution methods, or organizational mission (Bolman & Deal, 2017). Specialization can create political dynamics that manifest in self-motivated coalitions, focusing on advancing their interests and resulting in conflicts and power plays between individual contributors or groups with conflicting agendas, needs, views, or desires (Bolman & Deal, 2017; Morgan, 2006). These observations demonstrate the

challenges of specialization accompanied with coordination. An exploration of TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure is needed to inform structural decisions and contribute to TU and TI research.

Coordination

Coordination and coordination theory are covered to acknowledge their traditional role in addressing task-related contingencies, such as TU and TI, resulting from the division of labor via functional specialization; however, they are not the current study's focal points. In the current study, I explore the TU and TI experiences of individual contributors following a reorganization from functional specialization to a horizontal organizational structure before and regardless of management efforts to provide coordination. An exploration of the TU and TI experiences of managers following a reorganization from functional specialization to a horizontal organizational structure is worthy of future research beyond the current study. Longitudinal studies on the TU and TI experiences of individual contributors and managers following a reorganization from functional specialization to a horizontal organizational structure are also worthy of future research.

Coordination and coordination theory introduced new ways of thinking about how individual actor activities can be better harmonized to improve organizational outcomes (Malone, 1988). Much like SCT, the early definition of coordination theory demonstrated that authors acknowledged the link between organizational structure and the task-level environment. Unlike SCT, however, coordination theory does not attempt to identify or

establish a cause-and-effect relationship between organizational structure and the task-level environment; it merely attempts to offer understanding and mitigations.

Coordination theory takes organizational structure for granted by not assigning it as a cause of dependencies (Molenveld et al., 2019; Wall, 2019; Walsh & Brady, 2019; Wang et al., 2018; Zhou, 2019). Traditional positivist beliefs that promote adherence to strict rules and command-and-control tactics provide the primary mitigations associated with coordination (Walsh & Brady, 2019; Ziegert et al., in press) to resolve task-level uncertainty and interdependencies introduced via a functional structure.

Coordination theory research has revealed many of the underlying reasons why coordination is necessary. At the heart of coordination is the challenge of normalizing understandings and aligning task linkages between teams and within teams (Ziegert et al., in press). Coordination requires the introduction of additional individual contributors with different specialized responsibilities and knowledge to provide integration (Young-Hyman, 2017) through activities such as communications, mutual trust, transfer of knowledge, alignment of values and vision, and interpersonal relationships (Lazar et al., 2020). The division of labor via functional specialization creates structural barriers, such as physically co-locating functional teams, and psychological barriers, such as different priorities, goals, norms, and processes, which coordination must overcome (Ziegert et al., in press). Multifaceted approaches are needed as an increased level of the division of labor results in complexity that extends beyond the average individual contributor's understanding and beyond what can be coordinated through communication alone (Andersen, 2019). Unfortunately, the prescribed coordination method that is still in use

today relies on command-and-control authority, where managers direct their subordinates' activities, allocate resources, and resolve conflicts (Snow et al., 2017). Functional specialization physically and mentally orients individual contributors towards their departmental reporting assignment and away from their cross-functional task assignment. In contrast, coordination attempts to re-orient individual contributors back towards their cross-functional task assignment, resulting in the additional complexity that leads to TU and TI.

The recognition that the complexity of many problems exceeds most teams' capabilities (Ziegert et al., in press) and that command-and-control mechanisms are insufficient on their own to create collaboration (Molenveld et al., 2019) has led to new lines of research. Coordination authors have acknowledged that better coordination methods are associated with improved task performance (Lazar et al., 2020). Structuring around interdependencies (i.e., structuring around cross-functional workflows) facilitates individual contributor coordination of different tasks, goals, and knowledge (Raveendran et al., 2020). Furthermore, actor-orientated (i.e., individual contributor-orientated) organizations have achieved coordination through simple rules, commons, and necessary infrastructures instead of command-and-control tactics (Snow et al., 2017). This research indicates a potential positive connection between less specialized structures and simplified coordination.

Horizontal Organizational Structures

The BPM philosophy encompasses multiple beliefs and practices; however, BPM is introduced in the current study for the singular attribute of researching and endorsing

horizontal organizational structures. Much like SCT, the origins of the BPM philosophy go back to a progressive array of earlier developments by multiple authors and organizations. Both Deming and Juran's work in the 1940s led to statistical process control to improve manufacturing efficiency, which the Japanese widely adopted before earning followers in the United States (Hamid et al., 2019; Jeston, 2018). Principles such as continuous improvement, quality at every step, close supplier relationships, individual contributor empowerment and effectiveness, and eliminating functional barriers between departments served as the foundation of the total quality management (TQM) movement (Hamid et al., 2019). Practitioners at Toyota fully embraced statistical process control and TQM following World War II. By the 1970s, they created the Toyota Production System (TPS), a frequently cited model of advanced process management (Hamid et al., 2019; Jeston, 2018). Toyota's TPS approach includes just-in-time manufacturing, which relies on process-level interfaces with suppliers and an objective of organizational responsiveness and flexibility to quickly adjust to environmental change (Yadav et al., 2017). These contributions provided theoretical and empirical evidence of the benefits of optimizing tasks in the execution of cross-functional workflows and thereby established the foundation for numerous other developments, including BPM.

Additional contributions that support the BPM philosophy include the theory of constraints (TOC) and Six Sigma, which emerged in the 1980s and 1990s, respectively, and added to the BPM body of knowledge. Advocates for the TOC, a management philosophy, adopt a robust system and business process focus by identifying and addressing bottlenecks in manufacturing processes to improve production throughput

(McCleskey, 2020). The underlying principle of the TOC that is most relevant to BPM states that the business process chain (i.e., cross-functional workflow) is only as strong as the weakest link. The continuous improvement methodology known as Six Sigma was first developed at Motorola in the 1980s but not popularized until the 1990s, when senior leaders at General Electric widely embraced it (Jeston, 2018). Scholars consider Six Sigma a return to statistical process control for focusing on the mathematical reduction of defects in manufacturing systems. Six Sigma gets its name from the desired number of standard deviations (six) in the normal distribution curve before a defect occurs, which precisely translates to achieving accuracy 99.99966% of the time (Jeston, 2018). The underlying principle of Six Sigma that is most relevant to BPM is that quality is a function of, and dependent on, the health of the entire end-to-end business process (i.e., the complete cross-functional workflow). The academic contributions made by TOC and Six Sigma advanced the momentum and relevance of business processes as a legitimate concern for senior leaders.

The 1990s were a period of additional dramatic advancements that furthered the focus on business processes and identified organizational structure as a means to optimize processes. The concept of *Lean* manufacturing was popularized in the 1990s as part of an assessment of Toyota's TPS (Yadav et al., 2017). Although researchers credit Lean principles to TQM, in the TPS, Lean focused on eliminating wasted time, wasted money, and wasted inventory in the manufacturing system (Yadav et al., 2017). Lean focuses on improving organizational processes to maximize customer value by eliminating waste (i.e., non-value-added tasks), improving process flows, reducing errors, and empowering

individual contributors to identify and solve problems (Dellve et al., 2018). The underlying principle of Lean that is most relevant to BPM is that measuring process efficiency should go beyond looking at the ends (outputs) and consider the means (production inputs, methods, tools, labor, etc.). A more dramatic development of the 1990s was the focus on BPR efforts triggered in part by two seminal articles. Business process reengineering originally called for the holistic and dramatic transformation of organizational structures, functions, and business process workflows to increase task execution efficiency and effectiveness (Hashem, 2020).

One of the seminal articles that triggered BPR called for a new form of industrial engineering based on using information technology (IT) and business process improvement techniques as critical tools to enable organizational transformation (Davenport & Short, 1990). Process thinking, which originated in the TQM movement, is essential to improving operations, extending beyond functional barriers to understanding activity interdependence (Hammer & Champy, 1993). Without this viewpoint, functional organizations will continue to suffer from suboptimization due to siloed thinking, segmented and broken processes, and a lack of process ownership that complicates operations (Davenport & Short, 1990). Improving processes requires providing new skills for individual contributors, rethinking management's role, and creating new structures such as organizing around business processes to eliminate structures based on function, product, division, or geography (Davenport & Short, 1990). The underlying principle of the new form of industrial engineering that is most relevant to BPM is the promotion of

process-based or horizontal organizational structures as an improvement over functional specialization.

Another seminal article credited with triggering BPR was authored by Hammer (1990) and called for radical reengineering efforts by obliterating existing ways of doing business. Hammer described reengineering as the radical redesign of business processes using IT to achieve dramatic operational improvements. As per Hammer (1990), reengineering is necessary, as current organizational structures are outmoded and obsolete; focused on cost, growth, and control; and not suitable for addressing the modern needs of quality, service, and innovation. Hammer (1990) posited that the original reason for designing functional structures was to stifle innovation and creativity to keep overambitious growth in check (e.g., a focus on control). An underlying assumption of functional specialization is that individual contributors are not knowledgeable or motivated enough to make the right decisions, monitor activities, or apply self-control (Hammer & Champy, 1993). The traditional pattern of functional organizing with strict control is still ingrained in current thinking and has resulted in the fragmented and piecemeal processes observed in modern organizations.

The basis of reengineering vastly departs from traditional ways of organizing and managing. Hammer (1990) posited that reengineering requires organizing around outcomes instead of functions, defining jobs around objectives instead of narrow functional tasks, trusting individual contributors to make local decisions instead of relying on management, and supporting the organizational structure's compression with fewer levels. Reengineering is impossible without strong senior leadership and a

compelling vision, as it requires disruptive changes to organizational structures, management systems, and job designs (Hammer, 1990). The underlying principles of reengineering that are most relevant to BPM include identifying functional organizational structures as a potential root cause of operational issues, recommending simpler structures without functional silos, empowering individual contributors with decision-making powers, and focusing on task execution. Based on these principles, Hammer's reengineering article represents a significant contribution to BPM and the promotion of horizontal organizational structures.

The offer of dramatic improvements promised by BPR fueled a decade of enthusiasm for business process improvement projects as senior leaders attempted to reengineer their organizations, however, with little success (Stoica et al., 2004). The disruptive nature of BPR initiatives makes success rare and requires a strong focus on the specifics of implementation, as demonstrated by the estimated 70% failure rate throughout the 1990s (Fasna & Gunatilake, 2019; Hashem, 2020). It deserves to be mentioned that effectively managing *what* is changing is as important as *how* the change is managed (Oreg & Berson, 2019; Stouten et al., 2018). The original BPR authors were clear that traditional organizational structures were part of the problem and in scope for change as part of the reengineering process (Davenport & Short, 1990; Hammer, 1990) and warned against overlaying additional operational demands on top of existing structures (Hammer, 1990). However, a survey of multiple BPR methodologies shows that the prescribed implementation processes do not call for the analysis, redesign, or modification of organizational structures (Fasna & Gunatilake, 2019; Hashem, 2020;

Stoica et al., 2004). The absence of implementation steps needed to re-engineer organizational structures in the BPR literature is notable and could be interpreted as a potential contributing factor to the high failure rates.

Research into the root causes of BPR failures mentions multiple challenges but does not directly call out the lack of structural changes as a missing element. The BPR literature calls out mistakes made with implementation approaches. These include issues with: vision, customer focus, sense of urgency, guiding coalition, communication, unaddressed obstacles, poor planning, not celebrating short-term wins, and cultural resistance (Hashem, 2020); as well as implementation steps, lack of adoption of the methodology, and executive understanding (Fasna & Gunatilake, 2019); and management commitment and leadership, unrealistic scope and expectations, resistance to change, overemphasis on tactical versus strategic dimensions, sponsor involvement, mixed messages, ignoring impacts on individual contributors, changing priorities, and inadequate resources (Stoica et al., 2004). These observations on the reasons for failure mention the underestimation of impacts on individual contributors, however, the decade of BPR initiatives failed to make the link between the issues of TU & TI and functional specialization. The decade of interest in BPR and numerous attempts to achieve promised benefits did not live up to expectations but did offer senior leaders the valuable lesson that business processes and task execution are critical to performance.

Contributions to BPM continued into the late 1990s and early 2000s. Key publications expanded the standard BPM body of knowledge, offered reflections on years of experience with BPR, and provided new insights regarding business processes and

horizontal organizations. Ostroff (1999) formalized the term horizontal organizational structure, demonstrated its legitimacy, and provided clarity on its origins. Horizontal organizational structures stem from multiple elements such as reengineering, TQM, continuous improvement, and the human relations school to create a coherent approach that aligns with the natural execution sequence of cross-functional workflows.

McCormack and Johnson (2001) introduced the term business process orientation, which includes horizontal organizational structures. McCormack and Johnson explained that business process orientation represents a cohesive and companywide view of processes, outcomes, and customer satisfaction as its most significant concerns while deemphasizing functional specialization.

The heart of the horizontal organization is to deliver on the value proposition to customers by segmenting the entire, end-to-end, cross-functional workflow of the complete core business process into no more than three or four business process areas, each with its necessary sub-workflows of information and materials (Ostroff, 1999). Elements of the horizontal organization include a process-based organizational structure, job definitions such as process owners, process-based teams, process performance measurements, resource allocations, integrations with suppliers and customers, empowerment schemes, IT workflows, competencies, skills, training, and culture (McCormack & Johnson, 2001; Ostroff, 1999). Hammer and Champy (1993) published a national best-selling book on reengineering that promoted end-to-end business processes, flatter organizations, ambitious breakthroughs, rule-breaking, and creative use of IT. The

literature that preceded BPM expanded the available vocabulary and created a tradition of looking to business processes to drive organizational performance.

Despite mixed results in practice, BPR was successful in changing the perspective of senior leaders in meaningful ways. Senior leaders were encouraged to see beyond structural concerns and better appreciate the need for value creation, to see the process-based organizing as an alternative that may be better at adapting to changes in value propositions, and to grasp the process enterprise as a more appropriate organizational form for a world in constant change (Hammer & Stanton, 1999; Ostroff, 1999). The horizontal organizational structure allows for more robust integrations of processes and tighter collaboration with suppliers and customers (McCormack & Johnson, 2001). This approach supports improved information processing, decision-making, delivery of products and services, and healthier relationships between stakeholders (Ostroff, 1999). In summary, the horizontal organizational structure provides an overarching architecture that better integrates organizational elements by synchronizing structure with task execution (Ostroff, 1999). Approaches with horizontal organizational structures are holistic and therefore address a range of issues that are systemic to functional specialization, thus benefiting the entire ecosystem.

The horizontal organizational structure may have positive implications for managers and individual contributors. The horizontal organizational structure's managerial approach eases the management burden (i.e., distributed decision-making, coaching vs. controlling) to expand their span of control and support ten times as many individual contributors (Hammer & Stanton, 1999). The horizontal organization is also

better suited to support individual contributors' job satisfaction through empowerment, knowledge and information sharing, training, decision making, and more explicit understandings of the entire workflow (Hammer & Stanton, 1999; Ostroff, 1999). Individual contributors who understand their role and how it contributes to the complete workflow are generally happier and have a more significant emotional stake in the organization (Ostroff, 1999), which is the exact opposite of the mechanistic viewpoint that sees individual contributors as interchangeable parts. These employee-facing benefits result in improved customer satisfaction through improved delivery speed, quality, service, and customized solutions (Ostroff, 1999). The benefits of strengthening individual contributors' conditions, such as reducing TU and TI, represent the horizontal organizational structure's most significant contribution.

There are also significant risks with implementing horizontal organizational structures that deserve attention. The most significant threat to success is resistance from top management, such as functional executives, who can perceive the reorganization as a loss of autonomy and power, or who are uneasy with the requirement for managerial collaboration (Hammer & Stanton, 1999). It is impossible to achieve integrated core business processes with a fragmented organization; therefore, senior leaders need to communicate, involve, and gain the full commitment of their functional managers or take a hard line to ensure the success of the initiative (Hammer & Stanton, 1999; Ostroff, 1999). The tendency to hold on to power and jealously guard territories and resources, as well as challenges in determining new patterns of coordination, are common reasons why few organizations have fundamentally changed and achieved the full benefits of

organizational change projects (Worren et al., 2019). An explanation for this resistance is that functional specialization has existed as a static concept for so long that it exhibits a level of inertia that is exceedingly difficult to overcome (Ostroff, 1999). First identified in the 1990s, these risks will pose challenges for the foreseeable future for senior leaders of functionally specialized companies who are considering a horizontal organizational structure.

Improving chances for success with horizontal organizational structures involves a multifaceted approach to help individual contributors transition. An organizational structure should promote task execution, problem-solving, and innovation; therefore, the reorganization process should harmonize core business processes, management systems, and cultures to support a new balance of power (Hammer & Stanton, 1999; Ostroff, 1999). Additional measures include dissolving old functional structures and associations to ensure that individual contributors or managers do not revert to old behaviors; establishing process owners with real authority and accountability; budgeting by process areas and not departments; reassigning functional managers as trainers, teachers, and coaches; measuring success based on process performance; and structuring compensation, training, development, and career paths around process outcomes (Hammer & Stanton, 1999). Functional specialization treats managers as the thinkers and individual contributors as the doers, so both cohorts need to understand how their day-to-day thoughts and actions need to change, with managers accepting inputs from the individual contributors and individual contributors knowing how to think deeply about their work, challenging the status quo, and working collaboratively to improve task

execution (Ostroff, 1999). Reorganizing from functional specialization to a horizontal organizational structure has implications for all employees; therefore, reorganization initiatives need holistic and comprehensive plans that support the transition of thought and action and incentivize all to maintain momentum in the right direction.

Support of BPM, and its related topics, such as the horizontal organizational structure, has continued steadily since the early 2000s. Academics currently consider BPM a legitimate, multidisciplinary tradition supported by a dedicated academic journal, annual conferences, a formal body of knowledge (BOK), extensive qualitative and quantitative literature, maturity models, and numerous books. Following is a finite sample of the complete body of scholarly work on BPM to demonstrate the depth and breadth of investigations. Klun and Trkman (2018) conducted an extensive literature review on BPM and concluded that it is an emerging field of research experiencing increased interest and maturity over time. Badakhshan et al. (2020) described BPM as the key for successful management and denoted it as a critical strategic component of organizational success. Kohlbacher and Reijers (2013) assessed business process orientation and determined that it is positively associated with improved product quality, customer satisfaction, delivery time, product development, reliability, and market share. Vom Brocke et al. (2014) evaluated implementation initiatives to develop sound BPM principles, such as embedding processes in the organizational structure, achieving integration across all functions, and using BPM principles to contribute to the strategy. Klun and Trkman (2018) analyzed the use of BPM to achieve stronger customer focus and determined that companies should integrate their internal processes with customers'

operations and potentially convince customers to change their processes to gain the maximum benefit. Hernaus et al. (2016) examined successful BPM implementations and posited that strategy, structure, and governance must align with and reinforce the beliefs and practices promoted by BPM.

Research into BPM has shown many benefits from following the management philosophy. Dijkman et al.'s (2016) survey of maturity models identified that an association generally exists between higher BPM maturity levels and higher organizational performance levels. Zelt et al.'s (2019) research into BPM mechanisms found improvements in context-sensitivity (i.e., situational awareness) and coordination. In his 650-page BPM implementation guide, Jeston (2018) found value from minimized management layers and departmental interfaces, maximized process efficacy and clarity, and fluid structures that support continual adaptation. Slade (2018) described the benefit of the horizontal organization as leveraging the personal traits of self-management. Giri and Ramakrishnan (2019) used behavioral momentum (a diagnostic tool to measure behavioral persistence and resistance to change) to demonstrate that individual contributors in nonhierarchical (e.g., horizontal) organizations demonstrate an improved ability to innovate and adapt to change. Turner et al. (2019) determined that organizational structures and individual contributors as social agents have a direct and meaningful influence on IT initiatives' effectiveness. These findings show a wide array of benefits from following the BPM management philosophy, including applications to performance, process awareness, coordination, management, adaptation, and innovation. These contributions from BPM demonstrate the multidisciplinary nature of this

overarching management philosophy and its extensive potential to drive performance improvements.

This literature review also uncovered examples of mixed findings and differing opinions that deserve mention for their potential to confound the broader evidence on BPM. Hammer (1990) was very clear that organizational structures were part of the problem: our current “organizational structures came of age in a different competitive environment” (p. 2), reengineering is about “breaking away from the old rules about how we organize” (p.2), “our business processes and structures are outmoded and obsolete” (p. 4), “people tend to substitute the narrow goals of their department for the larger goals of the process as a whole” (p. 4), reengineering requires breaking away from “the constraints of organizational boundaries” (p. 5), reengineering results in changes to “job designs, organizational structures, management systems . . .” (p. 8). Contrasting these definitive statements, Hammer and Champy (1993) advocated for a dramatic change to processes while also claiming that organizational structures and bureaucracy are not the problem (p. 48), implying that it is possible and advisable to attempt to reengineer process structures while leaving the original organizational structure (i.e., functional departments) intact.

While being overly prescriptive with reengineering requirements around process optimization, Hammer and Champy (1993) appeared ambivalent and apathetic to structure: “whatever organizational structure remains after reengineering tends to be flat,” “after reengineering the issue of structure is considerably diminished in importance” (pp. 78–79). Furthermore, Hammer and Stanton (1999) called out specialization as a root

cause problem: vertical units act as “fiefdoms jealously guarding their turf, people, and resources” (p.1); however, they then described it as an essential element of the reporting structure: “in a process enterprise, the process owner has responsibility for the design of the process, but the various people who perform the process still report to the unit heads” (pp. 3–4). These statements appear contradictory and may further answer what led to BPR initiatives' failure through repeated attempts to recreate and optimize cross-functional processes while battling functional specialization attractor patterns.

Other authors have either objected to the horizontal organizational structure of simply avoided the topic. While adopting most BPM principles and practices, Tregear (2016) rejected the horizontal organizational structure as unnecessary and promoted more vigorous enforcement of the traditional matrix structure as an optimal management means. Despite writing a 650-page description of how to implement BPM, Jeston (2018) devoted only five pages to the topic of organizational structure and simply indicated that structure will need to change if it does not support optimization goals, that it is more important to get things right at the bottom of the structure where the work gets done, and that leaving all the power in the hands of departmental managers will result in suboptimization. These contributions indicate that authors are either avoiding the topic of structural change or are afraid to challenge functional executives that may feel threatened. Regardless of these mixed messages and alternative opinions, horizontal organizational structures are worthy of investigation due to their synchronization of structure with cross-functional workflow execution and the potential to reduce TU and TI while simplifying coordination.

Summary and Conclusions

Obtaining an understanding of individual contributors' experiences with TU and TI following a reorganization from functional specialization to a horizontal organizational structure is critical to informing senior leaders' structural decisions. Functional specialization was sufficient for hundreds of years in a slow-changing, manufacturing-based economy within a stable environment (Shafritz et al., 2016); however, it has contributed to TU and TI (Henk & Fallmyr, 2020). Functional specialization results in the direct and profoundly negative outcome of TU and TI which complicates and constrains individual contributors' ability to execute cross-functional tasks effectively. The horizontal organizational structure may overcome these limitations and better support knowledge-based economies with exceptionally high environmental change rates. The horizontal organizational structure synchronizes structure with task execution and allows for structural compression of management levels and specialized functional silos, thus significantly reducing TU and TI for individual contributors (Ostroff, 1999).

Evaluating the relationship between horizontal organizational structures and task-related contingencies can be done using SCT. The SCT framework provides a fit-based relationship between contingencies and structure. According to the causal connection in traditional SCT, contingencies trigger structural changes to regain fit; however, the current study leverages Donaldson's (2001) reverse causality, which supports the possibility that structure (e.g., functional specialization) may cause contingencies (e.g., TU and TI). The current study also draws on the management philosophy of BPM for its

definition and support of horizontal organizational structures as an extension of the structural offerings defined under traditional SCT (i.e., functional, product, divisional, or geographic). The current study fills a gap in the literature by being the first to leverage the reverse causality clause of SCT to explore individual contributor experiences of TU and TI following a reorganization from functional specialization to a horizontal organizational structure.

Chapter 3: Research Method

The purpose of this generic qualitative exploratory study is to explore how individual contributors experience TU and TI following a reorganization from functional specialization to a horizontal organizational structure. The study will include 25 participants as the research population who experienced a reorganization from functional specialization to a horizontal organizational structure between 2017 and 2022. The study will involve purposively sampling 25 individual contributors who experienced the pre- and post structural designs. Open-ended questions will be asked in semi structured interviews to understand participant TU and TI experiences or until reaching data saturation. Data analysis will involve using two approaches; manual coding to carefully report the shared before and after understandings, categories, and themes generated from the gathered data; and the MAXQDA qualitative data analysis tool will be used to generate visualizations of the data such as word clouds and word frequencies of responses and codes. The current study's findings may be beneficial to senior leaders and organizational design practitioners by improving their knowledge of TU and TI's individual contributor experiences following a reorganization from functional specialization to a horizontal organizational structure to inform structural decisions.

This chapter includes the details on four key elements of the study. The Research Design and Rationale section consists of an explanation of the selected research tradition. The Role of the Researcher section includes a description of my contribution to the study and outlines any potential ethical issues. The Methodology section outlines the participant selection logic, instrumentation, study procedures, and the data analysis

process. Issues of Trustworthiness section lists approaches to address credibility, transferability, dependability, confirmability, and ethical guidelines. Lastly, the Summary encapsulates the chapter's main points and includes a transition to the next chapter.

Research Design and Rationale

The research questions posed for the current study are: What are the individual contributor experiences of TU and TI before and after the reorganization? How are post reorganization TU and TI perceived by individual contributors relative to their understanding of task: responsibility, scope, procedures, alignment, urgency, and decision making? The study's central proposition is that horizontal organizational structures may reduce TU and TI for individual contributors while simplifying coordination mechanisms that management deploys to compensate for TU and TI. Two organizational design choices will undergo evaluation: the pre-reorganization structure of functional specialization that arranges individual contributors in highly specialized, functional departments (Giri & Ramakrishnan, 2019), and the post reorganization structure of a horizontal organizational structure that organizes individual contributors in multiskilled teams around the cross-functional flow of core business processes (Henk & Fallmyr, 2020). The two contingencies under evaluation are TU, representing the participant's level of task clarity related to understanding how to convert inputs into outputs, and TI, representing the participant's level of task reliance on the activities, knowledge, or authority of others from outside their immediate area.

The research tradition chosen for the current study is generic qualitative, and the specific research design selected is exploratory snowball sampling. The combination of

the generic qualitative tradition with an exploratory snowball sampling design is most appropriate for the current study for three reasons: using the method and design offers an understanding of the real-life experiences of participants to identify their personally held outlooks and interpretations; the method and design are most effective when investigating distinct events that researchers have yet to study (Ravitch & Carl, 2016); and the method and design allow for the inductive development of theory from the data (Yin, 2018). The current study will be holistic and involves a single unit of analysis, individual contributors involved in cross-functional tasks. The current study investigates the combined use of SCT's *reverse causality* (Donaldson, 2001) with horizontal organizational structures to explore individual contributors' TU and TI experiences following a reorganization from functional specialization to a horizontal organizational structure.

Other traditions and designs would be less effective for the current study. The quantitative method would not support an inquiry into individual contributors' experiences of living through a reorganization from functional specialization to a horizontal organizational structure. Phenomenology is not optimal as business processes are not a unique lived experience. Action research is not ideal as it would result in ongoing changes to the data being captured and analyzed (Ravitch & Carl, 2016). Grounded theory is not applicable as new or revised theory is not needed.

Role of the Researcher

Researchers assume multiple roles in qualitative studies: data gathering instrument, observer, and interpreter. Due to the extent of my involvement, I will remain

continuously mindful of my *positionality*, which refers to the researcher's role and identity as they influence the research context and setting; and my *social location*, which refers to the researcher's social class, race, gender, and culture that allows them to remain reflexive throughout the study (Ravitch & Carl, 2016). In the data gathering instrument role, I will conduct semi-structured interviews with participants and gather data via audio-recorded verbal responses and notes. Being a good researcher requires question formulation and response interpretation, objective listening without bias, situational adaptivity to leverage new information, contextual content knowledge, and ethical handling of contradictory information (Yin, 2018). In the observer role, I will listen for participant tone and inflection during audio-recorded interviews for deeper understanding. In the role of interpreter, I will code, analyze, and interpret all data gathered during the study, including audio-recorded interview transcripts and researcher notes from interviews.

My career experiences provide benefits and risks to my role as a researcher. With over 30 years of involvement in providing coordination support to individual contributors as a project and program manager, I have extensive experience and knowledge in recognizing and overcoming TU and TI challenges. This experience provides me with an expert level of understanding that will facilitate the creation of interview questions, follow-up questions, and inquiries during interviews, and interpretation of the gathered data. Conversely, I will need to incorporate additional measures to ensure that my experiences do not affect my objectivity. Additional measures will include member

checks, peer review, and validity checks to minimize the potential for my personal experiences to influence my interpretations.

The process used to select participants for this study will ensure that they are unfamiliar. Therefore, it is unlikely that I will have any personal knowledge or prior relationship with study participants that would require steps to remediate a supervisory, instructor, or other power-based relationship. If I encounter volunteers about whom I have prior knowledge, I will explain to them that I cannot include them in the interviews due to the prior relationship. The current study will involve using snowball referrals to solicit the required number of participants. Participants will be offered \$30 USD for completing the 60-minute interview process.

Methodology

Participant Selection Logic

The target population of participants for the current study will consist of 25 individual contributors from around the world or the number of individual contributors necessary to reach data saturation. The strategy to meet this requirement starts with soliciting the most appropriate participants based on the additional criteria of experiencing a reorganization from functional specialization to a horizontal organizational structure between 2017 and 2022, participating in both the pre organizational structure (i.e., functional specialization) and the post organizational structure (i.e., a horizontal organizational structure), serving in a similar individual contributor type role in both pre-and post-organizational structures with involvement in

core business processes, willingness to participate in a confidential interview, and an ability to read and speak English. I will identify participants via networking, referrals, press releases, BPM industry publications, and academic journal articles that mention individuals by name. I have also identified authors who may potentially be able to introduce me to participants. I will contact participants directly to assess interest in participating, ensure the stated criteria are satisfied, and determine availability. This sampling strategy will ensure I identify the most appropriate participants to approach and ensure I gather the needed data to address the research questions and satisfy the study's objective.

The strategy to identify the population of study participants will consist of sending an invitation letter that describes the qualifications for participation in the study. The current study will involve identifying and obtaining access to 25 individual contributor participants by soliciting interest and potential involvement. Twenty-five participants will provide sufficient feedback to ensure that either data saturation or satisfaction of methodological requirements is achieved. This sampling strategy will ensure I identify the most appropriate participants to collect sufficient data to address the research questions and satisfy the study's objective. The Walden University IRB approval number for this study is 05-06-21-0591962 and it expires on March 31, 2023.

Instrumentation

I will use interviews to gather sufficient data to ensure trustworthiness. This approach will include semi-structured interviews supported by researcher-produced audio recordings, transcripts, and notes. This approach will provide the depth and breadth of

data needed to answer the research questions, meet the study's objectives, and provide support to ensure trustworthiness.

Semi structured interviews will provide the firsthand lived experiences of individual contributors to understand TU and TI's experiences under the two conditions of functional specialization and a horizontal organizational structure. The emphasis of the open-ended interview questions will be the individual contributor experiences specific to TU and TI. I will prompt participants to offer their reflections on TU and TI from before and after the reorganization from functional specialization to a horizontal organizational structure. I will explore TU through interview questions created to explore individual contributors' effectiveness in the execution of cross-functional tasks by understanding their experiences with understanding task responsibility, scope, and procedures. I will explore TI through interview questions created to explore individual contributors' effectiveness in the execution of cross-functional tasks by understanding their experiences with understanding task alignment, urgency, and decision making. The data gathered in the interviews will provide the most in-depth and complete assessment of individual contributors' experiences of TU and TI before and after a reorganization from functional specialization to a horizontal organizational structure.

Exploring task uncertainty will be done through questions regarding task responsibility, scope, and procedures under the pre-and post-structural configurations.

Specific task uncertainty questions include:

- Compare and contrast your experiences navigating shared task responsibilities (i.e., consistency and accuracy of the received inputs needed to do your job) under the two structures.
- Compare and contrast your experiences navigating task procedures (i.e., knowing where, when, and how to hand-off your outputs to other groups) under the two structures.
- Compare and contrast your experiences navigating task scope (i.e., knowing the full sequence of steps to follow to complete your work) under the two structures.
- Compare and contrast the company organizational chart under the two structures.
- Compare and contrast your job description under the two structures.
- Compare and contrast one of your standard operating procedures (SOP) under the two structures.

Exploring task interdependence will be done through questions regarding task alignment, urgency, and decision-making under the pre-and post-structural configuration.

Specific task interdependence questions include:

- Compare and contrast your experiences navigating task alignment (i.e., knowing how tasks flow from upstream groups to you and then to downstream groups) under the two structures.
- Compare and contrast your experiences navigating task urgency (i.e., knowing how to prioritize your tasks to synchronize with upstream and downstream groups) under the two structures.

- Compare and contrast your experiences navigating task decision-making (i.e., knowing where, when, and by who task decisions are to be made) under the two structures.
- Compare and contrast your experiences remaining aware of task changes (i.e., becoming aware of changes upstream or downstream) under the two structures.
- Compare and contrast your experiences adapting to change (i.e., ease of adjusting to upstream or downstream task changes) under the two structures.

Interviews will provide the best source of data to support the current study.

Interviews align with the methodological design and will be most appropriate for answering the research questions and meeting the study's objectives. Interviews will also allow for thorough data analysis and trustworthiness.

Procedures for Recruitment, Participation, and Data Collection

The current study includes two research questions concerning individual contributor experiences with TU and TI before and after a reorganization to a horizontal organizational structure and data collection via interviews. All procedures will include additional plans to accommodate the global pandemic. Participant recruitment will involve sending an outreach communication to qualifying individual contributors to solicit their involvement. A participant recruitment list will be maintained, of primary and alternate participants, if primary participants decline the invitation. Participants will be offered \$30 USD for completing the 60-minute interview process.

Interviews will be conducted online, with data collection achieved through audio recordings of participants' responses and researcher notes taken during the interviews.

Audio recordings will then be submitted to the third party Temi.com for translation into written transcripts for use in detailed data analysis. Data analysis will involve using two approaches; manual coding to carefully report the shared before and after understandings, categories, and themes generated from the gathered data; and the MAXQDA qualitative data analysis tool will be used to generate visualizations of the data such as word clouds and word frequencies of responses and codes. As the principal investigator, I will collect and interpret all data from the interviews and manually record the interview notes for coding. Interview data collection will occur over an extended period of several weeks, depending on participant availability, or until reaching data saturation. Scheduled interviews are 1 hour in length. I will allow 40 minutes to answer the list of planned interview questions to ensure that time remains for further investigation into participant responses, address participant questions, and support debriefing before ending the call. Software-based meeting tools such as Zoom will provide interview recordings for the generation of audio files and transcripts.

Participant debriefing will occur as part of the planned 20-minute wrap-up period and include a review of post-interview requirements and follow-up procedures. Post-interview requirements will consist of a request not to share questions or responses with other participants until data collection has ended. Follow-up procedures will include providing my contact information (e.g., phone and email) for inquiries and additional input, a request for participant contact information (e.g., phone and email) for further questions or clarifications, and a review of the next steps regarding potential involvement in additional interviews and member checks. As the principal investigator, I will collect

and interpret all data from the interviews through transcripts and manually recorded notes for coding. My career experiences providing coordination services qualify me to interpret participant responses. If in-person interviews are requested by participants, they will take place in mutually agreed locations that offer privacy and minimal background noise, with data recorded through audio recordings and researcher notes.

Data Analysis Plan

The current study will involve conducting a detailed data analysis using interview data. A thorough data analysis approach is critical to ensure that researchers can draw meaningful insights from the gathered data (Hancock & Algozzine, 2017). Meeting trustworthiness thresholds will involve multiple steps, several techniques, and at least one tool as part of the plan to analyze data. I will use a combined coding approach that will utilize both manual and automated techniques. Coding is an important step in data analysis and represents the process of assigning meaning to the data (Ravitch & Carl, 2016). The coding approach that will be used for this study is inductive as it will seek to draw theory from the raw data (Ravitch & Carl, 2016). Meaning from the data will be obtained through the sense-making process of iteratively translating raw data into codes, categories, themes, and finally theory. A code is a word or phrase that symbolically assigns a summative, salient, or essence-capturing explanation for a portion of raw interview data (Saldana, 2016). A category represents an amalgamation of codes grouped into logical or related topics based on the researcher's interpretation (Ravitch & Carl, 2016) or based on the presence of a pattern in the coded data (Saldana, 2016). A theme represents the analytical outcome of the coding and categorizing process that describes

the more subtle processes that are occurring in the data (Saldana, 2016). Theories derived from the data will link the findings back to the study to address the research questions. Systematically interrelating themes leads to the development of theory, key assertions that attempt to advance concepts from the particular to the general in support of transferability (Saldana, 2016).

This study consists of 11 interview questions that all have a before and after component that must be isolated and analyzed individually to address the research questions. Studies with complex data sets make good candidates for manual coding (Saldana, 2016). Furthermore, qualitative data analysis tools can prove to be very complex and overwhelming, therefore, time may be better spent on the data analysis versus the technology (Saldana, 2016). For these reasons, a manual coding approach will be used for the primary coding process to ensure that all insights can be drawn from both aspects of each response. Following each interview, responses will be coded twice. The first round of coding will render *first cycle* codes, an exploratory and holistic method that supports an emergent, inductive investigation of experiential data by assigning preliminary codes prior to more refined coding (Saldana, 2016). First cycle coding is useful as it enhances researchers understanding of basic issues in the data by absorbing them as a whole and applying a single code to a larger segment of data to capture a sense of the overall message (Saldana, 2016). Following this step, the first cycle codes will be used to create *second cycle* codes, or pattern codes, that facilitate the definition of meta-codes by categorizing similarly coded first cycle data to organize and attribute meaning to the full data set (Saldana, 2016). Second cycle coding is useful as it is inferential and

supports the identification of emergent themes by combining multiple first cycle codes into more meaningful units of analysis (Saldana, 2016). Second cycle codes will be used as the input to determine data saturation by reviewing both lower- and higher-level codes and counting the number of new codes in each successive transcript until the frequency of new codes diminishes (Hennink & Kaiser, 2022). Second cycle codes will also be used to generate categories and themes which will be used in the member checks to validate the meaning that I have derived from the data. Once all interviews are conducted and coded, I will aggregate all responses per each interview question and conduct a tertiary review of the responses for further insights. Once all interviews are complete, the MAXQDA qualitative data analysis tool will be used to generate visualizations of the data such as word clouds and word frequencies of responses and codes to look for patterns in the data on a question-by-question basis. This holistic coding plan will ensure that all possible insights are obtained and that the resulting theories are supported. The following steps represent the complete data analysis plan for the current study:

- parallel gathering and early analysis by reading or listening to data as they are compiled or received, referred to as an *inductive reading*, to identify initial insights, themes, or patterns from the data (Ravitch & Carl, 2016);
- parallel gathering and *participant validation*, or member checks (Ravitch & Carl, 2016), by sharing the gathered data with the participant to offer them an opportunity to validate that the interpretations of the captured responses properly reflect their views and sentiments;

- periodic *unstructured readings*, which will include a full reading of all data gathered to date, but before and without the burden of coding (Ravitch & Carl, 2016), to look for overarching context, patterns, or new understandings;
- parallel gathering and manual coding by translating transcript data as they are gathered from audio recordings and researcher notes into codes, categories, themes, and finally theory;
- periodic *inductive coding*, which involves drawing theory from the data (Ravitch & Carl, 2016), from the entire corpus of data to date to validate the meaning of the codes, categories, and themes found during coding;
- periodic *peer review*, which involves inviting others to review and critique the analysis steps and interpretations at several points during the process (Ravitch & Carl, 2016);
- analysis of the complete and final corpus of data to confirm categories, themes, and meaning identified previously and to isolate any *disconfirming evidence* that may challenge other findings or provide understandings that deserve further inquiry (Ravitch & Carl, 2016);
- validity checks across the entire corpus of data to validate results and identify if they converge or diverge (Ravitch & Carl, 2016) or how I may need to revisit and challenge my interpretations.

This data analysis plan is intentionally iterative, with periodic reading, coding, and reflexivity to remain continuously open to and aware of any needed adjustments along the way. I will brief study participants on the possibility of being contacted for

follow-up discussions should new information emerge or if adjustments are necessary. Throughout data analysis, I will monitor for needed adjustments to processes, questions, or tools and data saturation in the responses.

Data saturation occurs when researchers determine no new issues, insights, patterns, or learnings are present in the data analyzed from a specific data source, therefore making additional data collection unnecessary (Hennink & Kaiser, 2022; Ravitch & Carl, 2016; Rubin & Rubin, 2012). As per Hennink and Kaiser (2022), data saturation can be declared when the cumulative code counts reach between 88% to 95% of the total. Testing for data saturation involves simultaneously gathering and analyzing data to inform the achievement of saturation and the satisfaction that the sample is sufficient, and that the data captures the “diversity, depth, and nuances of the issues studied – and thereby demonstrates content validity” as well as “qualitative rigor” (Hennink & Kaiser, 2022, p. 2). For the current study, I will combine two methods to determine the achievement of saturation; *code frequency counts*, which involve counting the number of new codes in each successive transcript until the frequency of new codes significantly diminishes, and *high-order groupings*; which counts groupings of codes such as categories or themes from the code frequency counts until they significantly diminish (Hennink & Kaiser, 2022). In their analysis of 22 studies, Hennink & Kaiser (2022) determined that an average planned sample size of approximately 30 subjects reached data saturation after analyzing data gathered from approximately 10 subjects. The current study will involve using this data analysis plan consistently across the entire corpus of data to ensure consistency.

Interviews will require additional measures to support data analysis. Interviews will take place online and be audio-recorded using audio conferencing; therefore, special accommodations related to the global pandemic will not be necessary. The transcription service Temi.com will be used to transcribe the audio recordings, and I will use the transcripts for readings and manual coding. The current study will involve conducting the readings and coding following the standard steps outlined above. Interview questions will be suitable to explore individual contributors' experience of TU and TI under both functional specialization and a horizontal organizational structure. Specific interview questions on the topic of TU will explore individual contributors' effectiveness in cross-functional task execution, covering task responsibility, scope, and procedures. Specific interview questions on TI's topic will inquire into individual contributors' effectiveness in cross-functional task execution regarding task alignment, urgency, and decision-making across the organization. I will handle disconfirming interview responses carefully throughout data gathering and data analysis. If iterative and parallel data gathering and analysis uncover recurring themes that disconfirm other responses, I will label, aggregate, and analyze the data as they occur and adjust the study to respect the new information.

Issues of Trustworthiness

Credibility

Strategies to ensure credibility will include reflexivity, member checks, data saturation, and peer review. Establishing credibility is critical and starts with participant selection, verifying captured data, and remaining transparent throughout the research process (Rubin & Rubin, 2012). As the primary instrument of data gathering and

interpretation, it is incumbent upon the qualitative researcher to remain aware of how their personal beliefs and biases may taint their understanding of what they are seeing; therefore, I will allow the data to guide my conclusions. Reflexivity will be achieved through self-reflection and external challenge by a peer to scrutinize all aspects of the data gathering, analysis, and interpretation. Member checks will ensure that interpretations of the data gathered ultimately reflects individual contributors' views; therefore, all data collected will be verified by participants. Data saturation will be monitored by immediately reading and coding data gathered to track any new learnings. I will consult a peer reviewer to evaluate and validate procedures, instrumentation, and interpretations. Peer reviews will be conducted as per the common steps outlined above and will expose all methods, artifacts, analyses, and interpretations for critical feedback.

Transferability

Strategies to ensure transferability will include thick descriptions and variation in participant selection. Transferability refers to the ways researchers can make qualitative research applicable to broader contexts or other respondents (Ravitch & Carl, 2016). Thick descriptions (i.e., detailed descriptions) of the data allow readers to make comparisons to different contexts (Ravitch & Carl, 2016) by engaging in discussions with depth, detail, and richness (Rubin & Rubin, 2012). Thick descriptions of the data are best created by engaging in fewer main questions but more detailed probes and follow-up questions (Rubin & Rubin, 2012). Drilling into the meaning of initial responses until achieving full clarity will help to ensure thick descriptions. Although the current study will include a participant pool stratified by common experience and role, I will seek

participant selection variation through the diversity of gender, age, race, and nationality. I will achieve diversity among participants by establishing multiple initial participants to start the snowball sampling process to ensure invitations go to a broad group and make participant selections that adhere to variability goals.

Dependability

Strategies to ensure dependability will include the sequencing of methods. Dependability relies on data's consistency and stability to accurately answer research questions (Ravitch & Carl, 2016). The sequencing approach will be linear, with the participants interviewed in the order that they agree to participate with analysis commencing immediately after, following the data analysis plan. In this way, rich data will be gathered early to inform the efficacy of design, questions, analysis, and interpretations. The standard data analysis procedures outlined above also call for iterative rounds of gathering and analyzing data, which will occur as part of the sequence.

Confirmability

Strategies to ensure confirmability will include reflexivity and peer review. Confirmability addresses the reality that qualitative researchers are subject to objectivity and biases and seek proactive mediation (Ravitch & Carl, 2016). Reflexivity will happen through self-reflection and external challenge by a peer to scrutinize all aspects of data gathering, analysis, and interpretation. Peer reviews will follow the standard steps outlined above and expose all processes, artifacts, analyses, and interpretations for critical feedback.

Ethical Procedures

Strategies to ensure procedures are ethical include full adherence to institutional review board (IRB) guidelines for human participants' treatment, plans for data collection and storage, and a secondary vetting of the ethical procedures. I will comply with all the IRB requirements and protocols throughout the research to ensure human participants' ethical treatment. I will complete a formal IRB application and obtain approval before researching to ensure no treatment violations.

I will address ethical concerns related to recruitment materials and processes via a formal agreement with participants. The executed agreement will stipulate parameters for gaining access to individual contributors. I will complete the agreement while soliciting participants, as securing sufficient participation commitments are critical. Recruitment requirements will include ensuring confidentiality, agreeing not to disclose interview questions or responses with fellow participants during data gathering, and a pledge to maintain participants' anonymity and the privacy and security of gathered data. I will offer each participant \$30 USD for completing the study.

I will address ethical concerns related to data collection and handling by ensuring anonymity, confidentiality, restricted access, and limited retention. Data collection will involve assigning a random number to each participant's audio-recorded responses to maintain the confidentiality of their identity. I will maintain confidentiality by not providing any other participants with access to another's responses. Access to, or dissemination of, data will be restricted to the peer reviewer only and will be limited to the de-identified and aggregated responses; therefore, only the researcher and each

participant will know who the actual respondent was. Minimum retention requirements will be satisfied for all electronic and hard-copy data to meet university standards. I will destroy all data via permanent deletion or shredding at the earliest date.

To add assessment beyond IRB approval, I will request a peer review of all ethical processes and materials before conducting research. The secondary vetting of the ethical methods and materials will reduce the possibility of ethical concerns arising during the study. The review will ensure recruitment, data collection, data analysis, and data handling procedures protect participants, data, and the researcher from adverse situations.

Summary

This chapter included an overview of the primary methodological and design elements of this exploratory study. The chapter outlines the study's approach to satisfying the design, achieving criticality to the theoretical proposition, and revealing previously inaccessible phenomena in the investigation of individual contributor experiences with TU and TI following a reorganization from functional specialization to a horizontal organizational structure. I articulated in detail the methods for how I will respect my role as the primary research instrument and the protector of the best interests of the participating individual contributors and gathered data. I also explained participant qualifications, including the satisfaction of having reorganized from functional specialization to a horizontal organizational structure and participating in cross-functional tasks. Interviews will comprise the primary data source. A series of standard analysis procedures will be followed for consistent treatment, including accommodations related

to the global pandemic. Finally, I outlined methods to ensure trustworthiness to strengthen the study's value and meet academic rigor.

Chapter 4 will provide an overview of the completed research and a summary of the study results. Results will include a summary of the findings via tables and figures. The chapter will also discuss the satisfaction or dissatisfaction of the research questions with respective implications.

Chapter 4: Results

The purpose of this generic qualitative study is to explore how individual contributors experience TU and TI following a reorganization from functional specialization to a horizontal organizational structure. Interview questions intend to understand individual contributor experiences regarding TU and TI before and after their reorganization. The research questions that will be addressed through this research include What are the individual contributor experiences of TU and TI before and after the reorganization; and How are post-reorganization TU and TI perceived by individual contributors relative to their understanding of task: responsibility, scope, procedures, alignment, urgency, and decision making? The findings from this study may benefit organizational design decisions by providing new interpretations of TU and TI's individual contributor experiences.

This chapter includes a detailed explanation of the results of the research. Included in this chapter are the research setting section, which highlights any relevant organizational conditions affecting participants, the participant demographics section, which outlines the relevant personal profiles of participants, the data collection section, which explains the procedures and steps taken and variations experienced, the data analysis section which calls out the process used and specific codes reported from the data, the evidence of trustworthiness section which demonstrates the validity of the analysis, and the study results section which reports on the raw data captured using examples, statistics, and summaries to highlight how each research question has been thoroughly addressed.

Research Setting

In this study, I interviewed participants from multiple countries, ethnicities, and organizational settings. Based on the participants that shared their country of origin, it was revealed that the three continents of North America, Europe, and Africa were all represented in the participant pool. To the best of my knowledge, no two participants reported experiences from the same organizational setting; however, all reported having witnessed the shared condition of experiencing a reorganization from functional specialization to a horizontal organizational structure in the specified timeframe. While they all shared a common experience and the vast majority reported similar reactions, a few differences were revealed in the data that indicate minor variations in the methods of reorganization, resulting in variation in the personal reactions of participants leading to differing perceptions of which structure worked best.

The specifics of these variations in the methods of reorganization will be detailed in the study results section; however, they include the areas of delegation of authority, presence of process documentation, and sophistication of process technologies. These variations reflect the many alternative methods at the organizational members' discretion, driving each reorganization effort. Since no two organizations will reorganize in the same way and with the same scope, participant experiences should reflect a range of outcomes from these various reorganization methods. Despite the influence these organizational conditions had on a small subset of participants, the vast majority of participants reported very similar reactions to their respective reorganization.

Demographics

The demographic profiles of the participants involved in the study appear to vary greatly, representing multiple countries, ethnicities, and industries. While detailed demographic information was not collected, certain trends appear. To the best of my knowledge, 69% were physically in the United States at the time of the interview, although 77% of participants appear to have learned English as a second language. To the best of my knowledge, the ethnic backgrounds that appear to have been represented include Spanish or Latin American, African or African American, Romanian, and American. Additionally, participants represent a wide range of industries and professional backgrounds. While not prompted to provide such data, participants appear to have reported experiences in manufacturing, service, education, government, business administration, pharmaceuticals, and public works. Despite the variation in these areas, all participants reported their experiences as individual contributors in their respective roles.

The diversity of the participants in this study was a fortuitous outcome of the global solicitation efforts employed. A varied participant pool offers a wider range of individual contributor experiences for analysis. It supports efforts to demonstrate transferability, a key metric in qualitative research to make findings applicable to broader contexts or other respondents (Ravitch & Carl, 2016), through variation in participant selection. The diverse participant pool in this study contributes to demonstrating trustworthiness.

Data Collection

Data collection began with a plan to sample 25 individual contributors purposively, or until data saturation, and conducting semi structured interviews with open-ended questions. Upon initial contact with each participant, the consent requirement was explained, and the consent email was sent with the request to reply before the planned interview. All participants provided consent prior to their planned interview. Pre-interview recommendations for each participant included selecting a private and quiet setting to avoid being overheard or dealing with background noise and ensuring a high-speed internet connection. It was also explained that video recording was not allowed as per IRB.

Interviews were conducted between December 2021 and April 2022 using the online voice conferencing tool Zoom with audio recordings enabled. Before beginning the question-and-answer portion of the interview, data privacy measures were explained to protect participant identity, and an overview of the question format was provided. During each interview question, PowerPoint was used to display each question on-screen one at a time and read aloud, so the participants both heard and saw each question. Each interview lasted less than one hour, with an average question and answer period of approximately 30-40 minutes. Each interview was successful in that all interview questions were addressed with follow-up questions. The Zoom audio recordings were submitted to the online transcription service Temi.com to generate written transcripts. Written transcripts were downloaded for review and stored securely. Upon review, it was

apparent that the written transcripts required manual editing due to the complexity of the questions and how participants answered.

Each interview question requested that participants provide a response to share their experiences before and after the reorganization. Despite the request to always answer interview questions by addressing conditions *before* (the functional structure) and then addressing conditions *after* (the horizontal structure), participants' fluid responses consistently fluctuated between the two, sometimes with multiple shifts. The feedback grew in complexity based on a random number of follow-up questions based on the researcher's discretion. Given the comingled and complex feedback, manual editing of transcripts was required to separate the before from the after in order to analyze the data and address the research questions properly. Building off the original 11 interview questions, this manual editing process rendered 22 unique responses from each participant for analysis. Considering the total corpus of response data, the tool Microsoft Excel was chosen to support the data analysis. This formatting approach proved useful as it allowed for a side-by-side comparison of question and response and follow-up question and response. All transcript data was migrated to Excel as the transition point from data collection to analysis.

Several wrap-up topics were addressed after completing the recorded question-and-answer portion of the participant interview. Each participant was asked for optional referrals to others they may know who would qualify to participate, stressing that these referrals were completely voluntary. It was requested that prior responses not be shared that may influence the new participant if referrals occur. The follow-up member check

procedure was explained to each participant, clarifying how soon they would hear from me, how I would contact them, and their options to reply and complete the member check process. The payment of the promised \$30 US was also discussed, along with the online payment options available. In most cases, the payments were processed via PayPal while the participant was still on the Zoom call so they could confirm receipt prior to hanging up. All participants seemed grateful for the experience and asked to be informed of my research findings.

Data Analysis

The process followed during data analysis involved several cycles of coding and analysis, utilizing separate Excel worksheets for each participant created during data collection. Each worksheet is formatted in a grid fashion to support isolation of the before and after responses to each interview question and follow-up question and response. The completed grids were then coded using *first cycle coding*. This exploratory and holistic method supports an emergent, inductive investigation of experiential data by assigning preliminary codes prior to more refined coding (Saldana, 2016). First cycle coding is useful as it enhances researchers' understanding of basic issues in the data by absorbing them as a whole and applying a single code to a larger segment of data to capture a sense of the overall message (Saldana, 2016). First cycle coding, conducted without referencing pre-existing higher-level codes not to influence initial interpretations, was recorded in each participant's worksheet, as demonstrated in Figure 2.

Figure 2

First Cycle Coding Sample

		Original Interview Question	First Cycle Coding
Q1	Researcher	Please compare and contrast your experiences with the consistency and accuracy of the received inputs needed to do your jobs	First cycle coding: an exploratory and holistic method that supports an emergent, inductive investigation of experiential data by assigning preliminary codes prior to more refined coding (Saldana, 2016). First cycle coding is useful as it enhances researchers understanding of basic issues in the data by absorbing them as a whole and applying a single code to a larger segment of data to capture a sense of the overall message (Saldana, 2016).
	Participant	Before: <u>Before</u> : there are many files in my company to do my job, I need many information, many tools as computer, resources, Excel, Microsoft, and other information from other departments that are required to develop the program that I have to achieve. So, when I start to work, there are many files and many, many mistakes because we don't have the resources to do our jobs and that didn't happen only to me, it happened to many departments, other partners, and teams.	<u>Before</u> : multiple required inputs from other departments, multiple technology tools, mistakes due to missing inputs & technology, universal issues, felt afraid of implications of mistakes, confusion over task steps and requirements, lack of clarity
		After: <u>After</u> : We start to view an improvement in all the areas in all our work, because the information flows more efficiently and more easily and all the resources, all the programs that we have in IT department to provide computers, to provide any office tool that a new employee need. So, under the new everything changed to better.	<u>After</u> : improved efficiency & flow of information, improved use of technology, improved: focus - communications - clarity - consistency - accuracy - quality, new feedback loops, everything felt better, felt better orientated in their departments & jobs

Note. Sample of first cycle coding from original participant feedback, broken out by before versus after responses.

To initiate the next level of coding, each participant's first cycle coding results were carried forward to a new worksheet for reference. This new worksheet, also in grid format, serves multiple purposes. First, it allows for *second cycle coding*. This process facilitates the definition of meta-codes by categorizing similarly coded first cycle data to organize and attribute meaning to the full data set (Saldana, 2016). Second cycle coding is useful as it is inferential and supports the identification of emergent themes by combining multiple first cycle codes into more meaningful units of analysis (Saldana, 2016). The second cycle codes are recorded just below the first cycle coding for each participant and each question (before & after).

The second cycle coding worksheet also defines *categories*, the systematic application of order associating codes with a system or classification that groups or links codes for consolidated meaning (Saldana, 2016). The categories identified during the first round of second cycle coding include *task level* codes (i.e., one person doing one thing); *individual contributor (IC) level* codes (i.e., one person doing many things); *team level* codes (i.e., a department or process area, with many people doing many things); *process level* codes (i.e., a cross-functional or end-to-end workflow, with all people doing all things), and *other* codes (i.e., additional or unexpected feedback). Categories were applied during the first round of second cycle coding to keep track because some codes repeat across categories. An example of a categorized second cycle code is “Task clarity,” which refers to the category of “Task” and code “Clarity”, as in Figure 3.

Figure 3

Second Cycle Coding Sample

		P1 Categories	P2 Categories
Q1	Before:	<p><u>First Cycle Coding:</u> Uncoordinated tasks, lack of standardization, secrecy, tasks verbally communicated down & unwritten</p> <p><u>New Second Cycle - Categories:</u> Lack of task standardization Lack of task documentation Lack of task coordination Team secrecy IC dependence on management</p>	<p><u>First Cycle Coding:</u> Randomness, inconsistency, siloed understanding & action, felt comfortable & familiar, dependence on management</p> <p><u>New Second Cycle - Categories:</u> Task inconsistency Team siloed understanding & action Comfort & familiarity Ease via documentation</p>
	After:	<p><u>First Cycle Coding:</u> Coordinated tasks, standardization, task tracking and transparency, improved accuracy - consistent - productivity</p> <p><u>New Second Cycle - Categories:</u> Task coordination Task standardization Task tracking technology Task transparency Task accuracy Task consistency Task productivity</p>	<p><u>First Cycle Coding:</u> Improved understanding, process clarity, role clarity</p> <p><u>New Second Cycle - Categories:</u> Process awareness / clarity</p>

Note. Sample of second cycle coding from first cycle coding with categorized codes, broken out by before versus after. The next use of the second cycle coding worksheet was to isolate the number of new codes that occur per interview question (before and after) as each new participant is added to the analysis to determine *data saturation*. Data saturation occurs when researchers determine that no new issues, insights, patterns, or learnings are present in the data analyzed from a specific data source, therefore making additional data collection unnecessary (Hennink & Kaiser, 2022; Ravitch & Carl, 2016; Rubin & Rubin, 2012). As per Hennink and Kaiser (2022), data saturation can be declared when the cumulative code counts reach 88% to 95% of all codes. Testing for data saturation involves simultaneously gathering and analyzing data to inform the achievement of saturation and the satisfaction that the sample is sufficient, and that the data captures the “diversity, depth, and nuances of the issues studied – and thereby demonstrates content validity” as well as “qualitative rigor” (Hennink & Kaiser, 2022, p. 2). Leveraging the side-by-side nature of the grid format demonstrates the steady decline of new codes.

The final use of the second cycle coding worksheet was to aggregate the unique codes by interview question and before versus after responses. This worksheet summarizes unique codes with their respective counts by question. An analysis of these codes shows 476 codes across all categories, questions, and before and after, as seen in Figure 4. This summary has duplication as several codes repeat across categories and questions.

Figure 4

Summary of new codes by participant

		P1 Stats	P2 Stats	P3 Stats	P4 Stats	P5 Stats	P6 Stats	P7 Stats	P8 Stats	P9 Stats	P10 Stats	P11 Stats	P12 Stats	P13 Stats	Total Codes
	New Categories (Total):	109	31	50	111	42	14	34	27	18	16	13	4	7	476
	New Categories (Before):	40	11	24	48	17	6	21	12	5	2	3	0	3	192
	New Categories (After):	69	20	26	63	25	8	13	15	13	14	10	4	4	284
Q1	Before:	5	4	2	4	1	1	1	2	0	2	0	0	0	22
	After:	7	1	6	6	0	1	2	1	1	2	2	0	1	30
Q2	Before:	7	0	5	6	3	0	2	1	1	0	1	0	0	26
	After:	8	2	1	8	2	1	1	2	1	2	2	1	1	32
Q3	Before:	5	2	4	2	0	2	2	2	2	0	0	0	0	21
	After:	11	1	3	5	2	2	2	1	3	1	1	0	0	32
Q4	Before:	2	0	0	8	1	0	2	1	2	0	0	0	0	16
	After:	5	4	1	11	2	1	1	1	0	1	0	0	0	27
Q5	Before:	4	0	0	2	1	1	2	1	0	0	1	0	0	12
	After:	8	0	1	2	2	0	1	1	3	3	0	2	0	23
Q6	Before:	1	4	4	2	1	0	2	2	0	0	0	0	1	17
	After:	2	5	3	9	1	1	0	1	0	0	0	0	0	22
Q7	Before:	2	0	3	8	2	0	3	0	0	0	0	0	1	19
	After:	7	0	1	2	4	0	3	3	0	1	2	0	1	24
Q8	Before:	3	0	3	6	4	0	0	0	0	0	0	0	1	17
	After:	4	1	4	1	4	1	0	2	1	1	1	0	0	20
Q9	Before:	3	1	0	2	0	1	3	2	0	0	0	0	0	12
	After:	6	0	1	4	2	1	2	2	2	2	0	0	0	22
Q10	Before:	2	0	3	5	2	1	2	0	0	0	1	0	0	16
	After:	3	2	3	8	3	0	1	0	1	1	2	0	0	24
Q11	Before:	6	0	0	3	2	0	2	1	0	0	0	0	0	14
	After:	8	4	2	7	3	0	0	1	1	0	0	1	1	28

Note. Summary counts of new categorized codes by participant, broken out by before versus after.

An analysis of truly unique codes reveals that there are 71 unique categorized codes in the before group and 93 unique categorized codes in the after group.

Before codes include:

- Task Codes include the *lack of* communication, coordination, documentation, prioritization, sequence, and standardization; and the *presence of* confusion, errors & rework, inconsistency, ineffectiveness, inefficiency, narrowness, redundancy, and top-down direction.
- IC Codes include the *lack of* problem-solving, resiliency, and versatility; and the *presence of* accidents, complexity, concern for self only, defensiveness,

dependence on management, disengagement, fear of mistakes, feeling dissonance, feeling of black-and-white, feeling of fear, feeling of frustration, feeling of tedium, feeling unworthy, feeling of paralysis, felt like being lost in the woods, felt unnatural, frustration, general job descriptions, mechanical operation, reactivity, and voicelessness.

- Team Codes include the *lack of* concern, resiliency, and awareness; and the *presence of* ignorance & apathy for other teams, improvisation, inaccurate information, inflexibility, inward/self-concern, management disengagement, myopic view, reporting complexity, rogue operators, secrecy, siloed understanding & action, and taller hierarchy.
- Process Codes include the *lack of* customer concern, documentation, process awareness/concern, process technology, resiliency, and responsibility, and the *presence of* general SOPs, incoherence, multiple disconnected task technologies, rigidity, and stoppages.

After codes include:

- Task Codes include the *presence of* accuracy, alignment, clarity, consistency, coordination, documentation, effectiveness, efficiency, execution ease, optimization, productivity, quality / less rework, responsibility, sequence certainty, standardization, tracking technology, and transparency.
- IC Codes include the *presence of* an ability to focus, autonomy, clear responsibilities, confidence, decision making, empowerment, engagement, equality, motivation, open-mindedness, prioritization, proactivity, problem-

solving, productivity, reduced stress, resiliency, satisfaction, sense-making, versatility, and *feelings of* connection to tasks, excellence, family, kindness, worth, connection, being knowledgeable, natural operation, relief, togetherness, usefulness, and walking a well-marked trail.

- Team Codes include the *presence of* awareness of other teams, clear expectations, common language, communication, cultural improvement, customer focus, empathy for other teams, feedback loops, flatter hierarchy, flexibility, management engagement, more aligned, reporting clarity, resiliency, respect, and teamwork.
- Process Codes include the *presence of* adoption to change, alignment with company priorities, alignment with customer priorities, alignment with structure, analysis & improvement, appreciation, awareness/clarity, process-based SOPs, coordination, documentation, puzzle connections, resiliency, responsibility, technology, transparency, understanding of the customer, and understanding of value creation.

Furthermore, *other* codes include:

- Before, some reported *comfort & ease from* management dependence, familiarity, specialization, command & control, documentation, self-containment, and processing outputs vertically.
- After, some reported *challenges with* adapting to change due to dependence on management, a lack of command & control, the upward flow of outputs, complex technology, frequent formal changes, a lack of documentation, a lack of process

authority, and ease through management decisions. Alternatively, some reported the *presence of* improved customer satisfaction, reduced stress on management, and improved management support.

The next step in the data analysis process was determining if data saturation had been met following 13 interviews. Evidence in support of saturation was provided by the coding counts on the second cycle coding worksheet and allows for calculations to be made from these numbers. Data saturation occurs when researchers determine that no new issues, insights, patterns, or learnings are present in the data analyzed from a specific data source, therefore making additional data collection unnecessary (Hennink & Kaiser, 2022; Ravitch & Carl, 2016; Rubin & Rubin, 2012). As per Hennink and Kaiser (2022), data saturation can be declared when the cumulative code counts reach 88% to 95% of all codes. Testing for data saturation involves simultaneously gathering and analyzing data to inform the achievement of saturation and the satisfaction that the sample is sufficient, and that the data captures the “diversity, depth, and nuances of the issues studied – and thereby demonstrates content validity” as well as “qualitative rigor” (Hennink & Kaiser, 2022, p. 2). The assessment from this analysis is provided in Figure 5 which shows data saturation occurring between participants eight and ten.

Figure 5

Data Saturation Evidence

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Totals:
# of New Codes:														
Before:	40	11	24	48	17	6	21	12	5	2	3	0	3	192
After:	<u>69</u>	<u>20</u>	<u>26</u>	<u>63</u>	<u>25</u>	<u>8</u>	<u>13</u>	<u>15</u>	<u>13</u>	<u>14</u>	<u>10</u>	<u>4</u>	<u>4</u>	<u>284</u>
Totals:	109	31	50	111	42	14	34	27	18	16	13	4	7	476
% of Codes:														
Before:	21%	6%	13%	25%	9%	3%	11%	6%	3%	1%	2%	0%	2%	
After:	24%	7%	9%	22%	9%	3%	5%	5%	5%	5%	4%	1%	1%	
All:	23%	7%	11%	23%	9%	3%	7%	6%	4%	3%	3%	1%	1%	
% Progression:	23%	29%	40%	63%	72%	75%	82%	88%	92%	95%	98%	99%	100%	
								Data Saturation Range						
								Hennink & Kaiser, 2022						

Note. Data Saturation table showing code counts and percentages by participant, with saturation occurring between participants 8 and 10, as per Hennink and Kaiser (2022).

The final step in the data analysis was to derive themes and theory from the coded data. A theme is an extended phrase or sentence that identifies and represents the analytical outcome of the coding and categorizing process that describes the more subtle processes occurring in the data (Saldana, 2016). Systematically interrelating themes leads to the development of theory, key assertions that attempt to advance concepts from the particular to the general in support of transferability (Saldana, 2016). Theories systematically explain the observed themes relating to life experiences that address the research questions. Themes and theory were captured in a new worksheet building off of the results of the final round of second cycle coding. Categorized codes were grouped based on their relationship to the two parts of RQ1. Interview questions one through six address RQ1 by investigating individual contributor experiences of TU before and after

the reorganization. Interview questions seven through eleven address the RQ1 by investigating individual contributor experiences of TI before and after the reorganization. The summarized results of the thematic coding of TU and TI are depicted in Figures 6 and 7.

Figure 6

Summarized TU Themes

Themes: TU Experiences Before:

At the Task level: employees experience a chaotic, unstructured, uncoordinated and unpredictable environment causing frustration, waste, and poor performance.

At the IC level: employees experience negative feelings causing negative emotions and behaviors leading to negative personal outcomes and poor performance.

At the Team level: employees experience destructive relationship dynamics producing disengagement, apathy, siloed and selfish actions, and poor performance.

At the Process level: employees experience a lack of end-to-end process awareness and documentation, insufficient concern for customers, and unsupportive process technologies causing work stoppages and poor performance.

Themes: TU Experiences After:

At the Task level: employees experience a highly aligned, coordinated, and supportive environment enhanced by task tracking tools which is leading to greater task awareness & clarity and improved performance.

At the IC level: employees experience a more humane working environment characterized by positive interactions, feelings, and experiences which is creating behavioral improvements and positive outcomes for them, the company, and customers.

At the Team level: employees experience greater social awareness, acceptance, and cooperation which is fortifying team dynamics such as empathy, respect, and communication improving personal motivation and company performance.

At the Process level: employees experience an efficient end-to-end infrastructure aligned with the organizational structure that synchronizes company and customer priorities and promotes on-going improvements through end-to-end awareness and transparency.

Note. Summarized TU Themes by category broken out by before versus after.

Figure 7

Summarized TI Themes

Themes: TI Experiences Before:

At the Task level: employees experience significant confusion trying to communicate with peers to understand how to sequence and prioritize work, requiring management intervention and resulting in poor performance and waste.

At the IC level: employees experience cognitive dissonance from contrasting reporting structures versus task execution processes resulting in negative, visceral emotions and requiring management intervention to attempt to mitigate.

At the Team level: employees experience rigid and disparate modes of operation across departments combined with an unwillingness to work across-the-isle resulting in isolated actions and misunderstandings that lead to poor execution.

At the Process level: employees experience a lack of understanding of, or concern for, the broader business processes that deliver value to the organization and to customers.

Themes: TI Experiences After:

At the Task level: employees experience a highly uniform environment with transparency and consistency which leads to improved understandings and commitments toward task ownership, higher quality, and reduced waste.

At the IC level: employees experience an unburdening of negative interpersonal tensions allowing them to fully and intellectually engage with their work in new ways which triggers positive emotions and behaviors that enhance task execution and overall performance.

At the Team level: employees experience a new degree of awareness, appreciation, and respect for their counterparts thus building interfaces that enhance systematic effectiveness and improve performance.

At the Process level: employees experience a new consciousness of end-to-end value creation processes allowing them to fully comprehend and embrace company and customer objectives, instilling a desire to enhance the ecosystem they now own and operate.

Note. Summarized TI Themes by category broken out by before versus after.

Interview questions one through six focused on addressing TU by exploring individual contributors' experiences with task responsibility, scope, and procedures. Interview

questions seven through eleven focused on addressing TI by exploring individual contributors' experiences with task alignment, urgency, and decision making. Themes generated from the responses were recorded for each identified category and from the perspective of before versus after. Similar to themes, theory generation was also done to correlate to the research questions and the perspectives of before versus after, rendering six results, as seen in Figure 8. Theories derived to address RQ1 included individual contributor experiences of TU before, TU after, TI before, and TI after. Theories derived relative to RQ2 were separated into two results, individual contributor's perceptions of post-reorganization TU perceived relative to their understanding of task responsibility, scope, and procedures; as well as individual contributor's perceptions of postreorganization TI, perceived relative to their understanding of task alignment, urgency, and decision making. Addressing theory from other responses was done last.

Figure 8

Summarized Theory from Themes

Theory: RQ1 "What are the individual contributor experiences of **TU** and **TI** before and after the reorganization?"

- **TU Before**, individual contributor experiences of **TU** dominated their environment causing demoralization, demotivation, and requiring excessive management intervention to provide coordination & motivation resulting in poor employee satisfaction and poor company performance.

- **TU After**, individual contributor experiences of **TU** are greatly reduced with an improved awareness and understanding of tasks and end-to-end processes, improved working conditions and employee satisfaction, and improved outcomes for the company and customers.

- **TI Before**, individual contributor experiences of **TI** overwhelmed their best efforts to execute with the realization that the ecosystem they were placed into, was actually working against them and was not within their power to change thus leading to the abandonment of any further desire to try.

- **TI After**, individual contributor experiences of **TI** are practically non-existent due to the elimination of emotional and operational blockades and the introduction of personal freedoms that effectively transformed working relationships from being antagonists to being close associates, thus improving employee satisfaction and performance.

Theory: RQ2 "How is post-reorganization **TU** perceived by individual contributors relative to their understanding of **task: responsibility, scope, and procedures**?"

- Post-reorganization, individual contributor perceptions of **TU** are dramatically changed. Individual contributors are more vested in their **task responsibilities** with a positive and proactive desire to drive improved task outcomes and continuous improvement due to a new sense of purpose and ownership over the task environment. Individual contributors are more engaged in ensuring the seamlessness of **task scope** and are more willing and able to fill in scope gaps, renegotiate task-based boundary lines, and remain resilient to task-based changes. Individual contributors are more confident in their ability to execute a broader range of **task procedures** thanks to greater information and knowledge sharing, supportive management, and task tracking technologies.

Theory: RQ2 "How is post-reorganization **TI** perceived by individual contributors relative to their understanding of **task: alignment, urgency, and decision making**?"

- Post-reorganization, individual contributor perceptions of **TI** are fundamentally different. Individual contributors not only have a stronger conception and appreciation of what **task alignment** is, they also have developed the proactive mindsets and relationships to continuously improve it. Individual contributors, having moved their primary focus from their departments to organizational and customer outcomes, now have respect and a willingness to cooperate to ensure that **task urgency** is a shared concern for the greater good. Individual contributor's newly acquired influence over **task decision making** has given them a new sense of ownership, appreciation, and engagement with their working environment which has invoked a greater sense of commitment.

Note. Summarized theory by research question for TU and TI.

Evidence of Trustworthiness

Credibility

Establishing credibility is critical and starts with participant selection, verifying captured data, and remaining transparent throughout the research process (Rubin & Rubin, 2012). The strategies employed to ensure credibility in the current study included reflexivity, member checks, data saturation, and peer review. I have attempted to practice reflexivity by allowing the data to guide my interpretations, practicing self-reflection, and engaging with a peer. Member checks were completed with all participants to ensure that my interpretations reflected their inputs. Data saturation was demonstrated to have occurred between participants 8 and 13. A peer review has been engaged throughout my data gathering and analysis to offer guidance and challenges to my methods and artifacts. These measures ensure that I have met the standard for credibility.

Transferability

Transferability refers to the ways researchers can make qualitative research applicable to broader contexts or other respondents through thick descriptions of the data by engaging in discussions with depth, detail, and richness (Ravitch & Carl, 2016; Rubin & Rubin, 2012). The strategies used to ensure transferability in the current study included thick descriptions and variation in participant selection. Evidence of thick descriptions can be found in the open-ended questions asked that prompted participant experiences from both before and after their reorganization. Variation in participant selection is

evident in the global search and the variations in industries represented in the full participant pool. These measures ensure that I have met the standard for transferability.

Dependability

Dependability relies on the consistency and stability of the data to accurately answer research questions (Ravitch & Carl, 2016). The strategies to ensure dependability in the current study included the sequencing of methods. Participants were interviewed in the order that they agreed to participate with analysis commencing immediately after, including transcript generation, transcript editing, first cycle coding for preliminary codes, and second cycle coding for codes, categories, themes, and theory. This method allowed for rich data to be gathered early to inform the efficacy of design, questions, analysis, and interpretations. These measures ensure that I have met the standard for dependability.

Confirmability

Confirmability addresses the reality that qualitative researchers are subject to objectivity and biases and seek proactive mediation (Ravitch & Carl, 2016). The strategies used to ensure confirmability in the current study included reflexivity and peer review. Reflexivity happens through self-reflection, open-mindedness to all inputs, and external challenges by a peer. Peer review occurred throughout and included scrutiny of all processes, artifacts, analyses, and interpretations for critical feedback on all data gathering, analysis, and interpretation aspects. These measures ensure that I have met the standard for confirmability.

Study Results

Study results are presented based on the research questions. The two research questions for the current study are What are the individual contributor experiences of TU and TI before and after the reorganization; and How are post-reorganization TU and TI perceived by individual contributors relative to their understanding of task: responsibility, scope, procedures, alignment, urgency, and decision making? Addressing these two research questions thoroughly requires seven different responses. From the first research question, I will separately address TU before, TU after, TI before, and TI after. From the second research question, I will separately address individual contributor perceptions of post-reorganization TU relative to task responsibility, scope, and procedures, as well as individual contributor perceptions of post-reorganization TI relative to task alignment, urgency, and decision making. Lastly, I will address the other feedback received during the interviews.

Regarding TU before reorganizing from a functional structure to a horizontal structure, the current study's thematic findings confirm this contingency's negative impacts on individual contributors. Donaldson (2001) defined TU as reduced task clarity related to understanding how to convert inputs into outputs. These negative impacts are experienced at multiple levels, the task level (i.e., one person doing one thing), the individual contributor level (i.e., one person doing many things), the team level (i.e., many people doing many things), and the process level (i.e., all people doing all things). At the task level, employees experience a chaotic, unstructured, uncoordinated, and unpredictable environment causing frustration, waste, and poor performance. At the

individual contributor level, employees experience negative feelings causing negative emotions and behaviors leading to negative personal outcomes and poor performance. At the team level, employees experience destructive relationship dynamics producing disengagement, apathy, siloed and selfish actions, and poor performance. At the process level, employees experience a lack of end-to-end process awareness and documentation, insufficient concern for customers, and unsupportive process technologies, causing work stoppages and poor performance.

Several individual contributor quotes support these observations. A brief list of participant quotes includes “employees didn’t share information with each other”, “people only cared about themselves”, “we generated a lot of problems”, “there was very bad teamwork because everyone was saying and doing something different”, “the process wasn’t clear, so we had to negotiate all the time”, “each department had separate objectives”, “it felt tense”, “you can’t question anything”. Individual contributor sentiments of TU before the reorganization are captured further in the supplemental word cloud visual presented in Figure 9.

Figure 9

Word Cloud – TU Before



Note: Word cloud of participant responses to TU before a reorganization from functional specialization to a horizontal organization.

Before, individual contributor experiences of TU dominated their task environment due to the complexity of understanding how to convert inputs accurately and consistently into the outputs that customers desired. This led to demoralization, demotivation, poor employee satisfaction, and poor performance requiring excessive management intervention to coordinate and motivate. Theory derived for TU before indicates that individual contributors are handicapped by an environment that works against them, forcing them to cope with or overcome structurally induced complexity and confusion while executing tasks.

Regarding TU after a reorganization from a functional structure to a horizontal structure, the thematic findings from the current study confirm the positive impacts of the new organizational form on individual contributors. These positive impacts are also experienced at the task, individual contributor, team, and process levels. At the task level, employees experience a highly aligned, coordinated, and supportive environment enhanced by task tracking tools, leading to greater task awareness & clarity and improved performance. At the individual contributor level, employees experience a more humane working environment characterized by positive interactions, feelings, and experiences, creating behavioral improvements and positive outcomes for them, the company, and customers. At the team level, employees experience greater social awareness, acceptance, and cooperation, fortifying team dynamics such as empathy, respect, and communication, improving personal motivation and company performance. At the process level, employees experience an efficient end-to-end infrastructure aligned with the organizational structure that synchronizes company and customer priorities and promotes ongoing improvements through end-to-end awareness and transparency.

Several individual contributor quotes support these observations. A brief list of participant quotes includes “we reduced unplanned stoppages by 50%”, “information flows more efficiently”, “everything was more clear, more transparent and we don't have the need to hold information or be afraid to make a mistake”, “there is more collaboration and teamwork”, “we actually collaborate”, “we now have a broader knowledge of the overall process and we're not working in silos”, “it's like a well-marked hiking trail”,

empowered to engage intellectually with personal responsibility in their working environment. By improving the task environment, the new organizational form results in increased employee satisfaction, higher quality, and happier customers.

Regarding TI before reorganizing from a functional structure to a horizontal structure, the current study's thematic findings confirm this contingency's negative impacts on individual contributors. Donaldson (2001) defined TI as an increased task reliance on others' activities, knowledge, or authority. These negative impacts are also experienced at the task, individual contributor, team, and process levels. At the task level, employees experience significant confusion trying to communicate with peers to understand how to sequence and prioritize work, requiring management intervention and resulting in poor performance and waste. At the individual contributor level, employees experience cognitive dissonance from contrasting reporting structures versus task execution processes resulting in negative, visceral emotions and requiring management intervention to attempt to mitigate. At the team level, employees experience rigid and disparate modes of operation across departments combined with an unwillingness to work across the aisle resulting in isolated actions and misunderstandings that lead to poor execution. At the process level, employees experience a lack of understanding of, or concern for, the broader business processes that deliver value to the organization and customers.

Several individual contributor quotes support these observations. A brief list of participant quotes includes “we didn't know how our tasks contributed to upstream or downstream”, “we did what our supervisor instructed us to do and we didn't ask why”,

Note: Word cloud of participant responses to TI before a reorganization from functional specialization to a horizontal organization.

Before, individual contributor experiences of TI overwhelmed their best efforts to execute cross-functional tasks due to excessive reliance on the activities, knowledge, and authority of people outside their immediate area or team. The realization that they are operating in an ecosystem that is not within their power to influence led to an abandonment of any further desire to improve working conditions, complacency, self-preservation, and poor performance, requiring further management intervention to align and integrate. Theory derived for TI before indicates that individual contributors are again stymied by an environment that sets teams at odds with each other distracting them from the task at hand and leaving them helpless to resolve structurally induced dependence and conflict.

Regarding TI after a reorganization from a functional structure to a horizontal structure, the thematic findings from the current study confirm the positive impacts of the new organizational form on individual contributors. These positive impacts are also experienced at the task, individual contributor, team, and process levels. At the task level, employees experience a highly uniform environment with transparency and consistency, which leads to improved understandings and commitments toward task ownership, higher quality, and reduced waste. At the individual contributor level, employees experience an unburdening of negative interpersonal tensions allowing them to engage with their work fully and intellectually, triggering positive emotions and behaviors that enhance task execution and overall performance. At the team level, employees experience a new

degree of awareness, appreciation, and respect for their counterparts, thus building interfaces that enhance system effectiveness and improve performance. At the process level, employees experience a new consciousness of end-to-end value creation processes allowing them to fully comprehend and embrace company and customer objectives, instilling a desire to enhance the ecosystem they own and operate.

Several individual contributor quotes support these observations. A brief list of participant quotes includes “we began to have a voice and make decisions”, “we have the possibility to solve problems by ourselves and propose changes”, “we have support and communication between teams”, “I have visibility into the whole process and where I fit in”, “the new workflow process has provided task alignment, knowledge alignment, accountability, and responsibility”, “we now have a structure that everybody clearly understands who we need to go to for final decisions”, “new structure has resulted in making faster decisions and being more effective”, “we have more collaboration and communication”. After the reorganization, individual contributor sentiments of TI are captured further in the supplemental word cloud visual presented in Figure 12.

more productive relationships, more effective task exchanges, and improved outcomes for customers.

Regarding individual contributor perceptions of post-reorganization TU relative to task responsibility, scope, and procedures, the findings from the current study confirm the positive impacts of the new organizational form on individual contributors. Post-reorganization, individual contributor perceptions of TU are dramatically changed. Individual contributors are more vested in their task responsibilities with a positive and proactive desire to drive improved outcomes and continuous improvement due to a new sense of purpose and ownership over the task environment. Individual contributors are more engaged in ensuring the seamlessness of task scope and are more willing and able to fill in scope gaps, renegotiate task-based boundary lines, and remain resilient to task-based changes. Individual contributors are more confident in executing a broader range of task procedures thanks to greater information and knowledge sharing, supportive management, and task tracking technologies.

Several individual contributor quotes support these observations. The following is a brief list of participant quotes relative to post-reorganization task responsibility, scope, and procedures. “People understood what they're supposed to be doing”, “it is possible now to know the entire end-to-end process and what every person is doing”, “everything was clear, had all the needed information and feedback”, “being empowered helps the information flow faster, it is more collaborative and open”, “it’s very transparent because the process is built in, it's identified”, “we are actually focused more on organizational goals due to fewer middle managers”, “everyone is more flexible”, “we do things in a

more logical way, where we have a say”, “it gave us room to be more flexible, and it was easier, it was not so rigid”, “we can analyze the process and find better methods”.

Regarding individual contributor perceptions of post-reorganization TI relative to task alignment, urgency, and decision making, the findings from the current study confirm the positive impacts of the new organizational form on individual contributors. Post-reorganization, individual contributor perceptions of TI are fundamentally different. Individual contributors have a stronger conception and appreciation of what task alignment is and have developed the proactive mindsets and relationships to improve it continuously. Individual contributors, having moved their primary focus from their departments to organizational and customer outcomes, now have respect and a willingness to cooperate to ensure that task urgency is a shared concern for the greater good. Individual contributors' newly acquired influence over task decision making has given them a new sense of ownership, appreciation, and engagement with their working environment, which has invoked a greater sense of commitment.

Several individual contributor quotes support these observations. The following is a brief list of participant quotes relative to post-reorganization task alignment, urgency, and decision making. “We know the impact of our job and how we add value”, “the restructuring of tasks with the workflow process has provided task alignment, knowledge alignment, accountability, and responsibility to the process”, “the flow is super, super clear because you have an organizational structure that is based on the process”, “we are more aware of how things flow from upstream to downstream groups, enabling us to perform tasks more easily and in-line with organizational goals with more efficiency and

accuracy”, “we're able to prioritize which tasks are bringing value to the organization”, “things are more aligned and more understandable, we know how to prioritize tasks with different individuals downstream or upstream”, “we have a voice and can make decisions and look for solutions”, “we had all the detailed information and could make decisions which led to less stress and better results”, “we are allowed to make decisions because we as professionals are in a good position to make them on our own”.

Theory derived from individual contributor perceptions of post-reorganization TU relative to task responsibility, scope, and procedures; and post-reorganization TI relative to task alignment, urgency, and decision making is that the new organizational form has influenced them on a task level and a personal level. At the task level, they are more efficient and effective in their work rendering higher quality, reduced costs, and improved customer outcomes. These performance outcomes are consistent with the literature on BPM, which promotes having an organizational structure in-line with the flow of value-adding tasks. More importantly, however, is how the new organizational form has affected individual contributors personally.

The new organizational form has invoked a visceral reaction from individual contributors by allowing them to contribute directly to their organizations' respective missions. Letting individual contributors engage in decision-making, process improvement, and innovation instills in them a new sense of purpose and ownership that triggers positive personal emotions (i.e., positivity, confidence, commitment) and behaviors (i.e., proactivity, willingness, openness). Post-reorganization, individual contributors exhibit a greater appreciation and respect for the broader organization as

they see how it collectively adds value and leads to customer outcomes. This new level of engagement and awareness leads to individual contributors who are more invested in their work and the organization with a greater level of resilience to change.

Regarding the other feedback received during the interviews, there were observations of additional benefits and challenges of the new organizational form and preferences for the old organizational form. The additional benefits of the horizontal organizational structure included a new type of management engagement, less stress for managers, and improved customer satisfaction (3 unique codes total, or 1.1% of the total number of "After" codes). Management engagement with individual contributors matured from a command-and-control style to a highly cooperative, respectful, and empathic style. Managers were reported to exhibit less stress as they transitioned from giving orders and bearing all responsibility to collaborating with staff and sharing responsibility. Customers were also reported to be happier as they received outputs when promised and with higher quality.

The individual contributor quotes that support the observations of additional benefits of the horizontal organizational structure were informative. "We have the flexibility and also the kindness to be close and talk to managers", "it feels like we are a family", "there was less stress for managers because they only had to control and not be everywhere giving instruction", "supervisors are happier because we are doing the controlling and they don't have to", "the new way is better for efficiency or adjusting to customer needs", "customer satisfaction improved because there was better quality and efficiency so we could deliver the product when we promised", "we could respond in a

better way to our customers". These observations of additional benefits from the horizontal structure can be understood as collateral outcomes from more effective task execution with less TU and TI. These additional outcomes provide possible avenues for future research beyond the scope of the current study. Theory derived from the observations of additional benefits of the horizontal organizational structure indicates a possible causal relationship of reduced TU and TI leading to easier engagement between management and individual contributors, less stress for managers, and improved customer satisfaction.

Regarding the other feedback that indicated perceived challenges with the new organizational form, observations of difficulties due to lack of command & control, lack of formal process authority, overly complex technology, and frequent formal process changes were noted (8 unique codes total, or 2.8% of the total number of "After" codes). The absence of a command and control management style, although welcomed by most participants, was difficult for some to adjust to due to an apparent preference for being told what to do, as opposed to being empowered and responsible. A few participants reported a lack of formal process authority and claimed that process owners lacked authority over the full end-to-end sequence of tasks. This hybrid authority model can be explained by the diversity of the participant pool and differences in their respective approaches to implementing governance within their horizontal organizational structures. Participant diversity can also explain the observation of overly complex technological implementations as part of approaches to implementing process-based tools to support a horizontal organization. Finally, the challenge of frequent formal process changes with a

horizontal organization can be explained as an anticipated outcome of how individual contributors contrast their functional versus process-orientated experiences (i.e., functional process changes are local and contained, whereas horizontal process changes can affect the entire end-to-end sequence and require formal change procedures).

The individual contributor quotes that support the observations of challenges with the horizontal organizational structure were revealing. “Navigating task responsibilities in a horizontal structure was tricky for me because it wasn’t strict, with set rules”, “even if there's a process manager, their authority isn't recognized, their decisions can be debated”, “the technology has made it more complicated, I think it’s overly complicated”, “the processes are changing all the time now and it takes time to adjust”. These observations of challenges with the horizontal structure can be understood as differences in the personal perceptions or preferences of the participants or differences in implementation approaches. Theory derived from the observations of challenges with the horizontal organizational structure indicates that while reorganization project approaches and individual contributor perceptions may differ, the core benefits of the horizontal organizational structure appear to improve TU and TI following a reorganization from a functional structure.

Regarding the other feedback that indicated a preference for the functional structure, observations included individual contributor experiences of comfort and familiarity, ease via specialization, and ease via command and control (7 unique codes total, or 3.6% of the total number of "Before" codes). Comments about comfort and familiarity with the functional structure seem to originate from the general difficulty of

learning anything new, not specifically saying that the functional was better. Comments reflecting ease via specialization seem to reflect classical management theory of greater efficiency via finite tasks, self-containment by department, and extensive documentation. Comments made around a preference for a command-and-control management style indicate a lingering desire to follow orders and look up to management for direction instead of following a process and accepting direction from customers and peers.

The individual contributor quotes that support the observations of a preference for the functional structure were instructive. “Things felt more consistent and accurate before because we were used to it and were told what to do”, “before, the specialized knowledge enabled more accuracy”, “with specialization we were more efficient”, “before, there was an advantage because your functional leader would hand-off your outputs to others”, “it was easier before to accomplish tasks because the steps were documented”, “with a functional leader, there's more order in the department, so that's what makes it efficient”, “the functional works better due to instructions, dogmas, norms, rules, regulations, and instructions”. Theory derived from the observations of a preference for the functional organizational structure indicates that the 100+ years of functional organizing have conditioned some to believe that this is how things should be done. Like any new model, the horizontal structure must compete with an incumbent model that still dominates the practical world and the academic literature.

Summary

The results of the current study have fully addressed the two research questions, What are the individual contributor experiences of TU and TI before and after the

reorganization; and How are post-reorganization TU and TI perceived by individual contributors relative to their understanding of task: responsibility, scope, procedures, alignment, urgency, and decision making? The answer to research question one is that individual contributor experiences relative to TU and TI have greatly improved by removing several of the complications associated with a functional structure and introducing a new model that appears to offer easier task execution by addressing TU and TI. The answer to research question two is that individual contributor experiences of post-reorganization TU and TI have improved their understandings of task responsibility, scope, procedures, alignment, urgency, and decision making.

The horizontal structure was considered superior by 100% of participants across all 11 interview questions, with only 3.15% of the total 476 coded responses reflecting otherwise. The overwhelming preference for the horizontal organizational structure validates it as a model for further consideration and future research as part of the models present in the classical research (i.e., functional, product, geography, and division). Despite negative sentiments towards business processes following the wave of BPR projects in the 1990s, the horizontal organizational structure warrants renewed consideration in our current knowledge economy where the customers and employees are seeking more from their respective suppliers and employers. The positive feelings expressed by individual contributors of horizontal organizations indicate opportunities for positive social change at the individual and organizational levels.

Chapter 5 provides the summarizing thoughts for the current study. The interpretation of findings section will confirm how the study's results extend the

knowledge in the discipline by comparing them in Chapter 2. The limitations section will present any issues with trustworthiness. The recommendations section will offer avenues for future research. The implications section will present how the current study supports positive social change at the individual, organizational, and societal levels. Finally, the conclusion section will provide the key essence of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this generic qualitative study is to explore how individual contributors experience TU and TI following a reorganization from functional specialization to a horizontal organizational structure. A generic qualitative, exploratory, snowball sampling research method will be most suitable method for the data sought because it will identify individual contributors' firsthand experiences. The current study was conducted to benefit senior leaders and organizational design practitioners by improving their knowledge of TU and TI's individual contributor experiences to inform structural decisions. There were five key findings from the current study. These include confirmation of the challenges of functional specialization (i.e., TU and TI before a reorganization), benefits of a horizontal organizational structure (i.e., TU and TI after a reorganization), post-reorganization task level improvements for individual contributors from reduced TU and TI, post reorganization personal improvements for individual contributors from reduced TU and TI, and insights informing what reorganization efforts should include to ensure individual contributor success.

Interpretation of Findings

Regarding the finding of confirmation of the challenges of functional specialization (i.e., TU and TI before a reorganization), this finding confirms and extends the literature on functional specialization. The finding confirms the literature by acknowledging that the strict command and control management mindset that accompanies functional specialization can be dehumanizing to individual contributors (Snow et al., 2017). By treating individual contributors as voiceless, interchangeable

parts, functional specialization can lead to low morale, apathy, inferior product or service quality, and absenteeism (Morgan, 2006). Under functional specialization, authority figures maintain control over task designs and expectations, limiting individual contributor input and preventing high-quality task designs that improve the individual contributor experience (Parker et al., 2017). The fragmented or siloed organizational structure of functional specialization can result in *segmentalism*, which refers to the compartmentalization by specialization that creates mental and physical barriers to effective and efficient communication and operation (Emmenegger & Seitzl, 2019). Segmentalism can also result in a lack of process awareness and ownership, a that's-not-my-job attitude, departments working against each other's interests, and a myopic sense of responsibility (Pheng & Omar, 1997).

The finding of confirmation of the challenges of functional specialization (i.e., TU and TI before a reorganization) extends the literature with new insights including a deeper understanding of how individual contributors are handicapped by their environment. The environment works against them and leaves it up to them to determine how to either cope with or personally overcome structurally induced complexity and confusion while also trying to execute tasks. The contrasting attention between respecting the demands of either their functional organization or their task execution process is more than a distraction of different attractor patterns (Morgan, 2006), it is a debilitating, dehumanizing, and demotivating reality for individual contributors. Functional specializations' influence at the team level goes beyond siloed thought, specialized action, misaligned incentives, suboptimal outcomes, and poor learning processes (Van De

Ven et al., 2013), it can shut down critical communication and collaboration resulting in inferior quality, rework, delays, higher costs, and customer complaints.

Regarding the finding of the benefits of a horizontal organizational structure (i.e., TU and TI after a reorganization), this finding confirms and extends the literature on horizontal organizational structures. The literature is confirmed by observing that the horizontal organizational structure allows for more robust integrations of processes and tighter collaboration with suppliers and customers (McCormack & Johnson, 2001). This approach supports improved decision-making, delivery of products and services, and healthier relationships between stakeholders (Ostroff, 1999). The horizontal organizational structure provides an overarching architecture that better integrates organizational elements by synchronizing structure with task execution (Ostroff, 1999). The horizontal organization is better suited to support individual contributors' job satisfaction through empowerment, knowledge and information sharing, training, decision making, and more explicit understandings of the entire workflow (Hammer & Stanton, 1999; Ostroff, 1999). Individual contributors who understand their role and how it contributes to the complete workflow are happier and have a more significant emotional stake in the organization (Ostroff, 1999). Employee-facing benefits result in improved customer satisfaction through improved delivery speed, quality, service, and customized solutions (Ostroff, 1999).

The finding of confirmation of the benefits of a horizontal organizational structure (i.e., TU and TI after a reorganization) extends the literature with new insights indicating very personal and deeply felt positive reactions to the new organizational form.

Examples of these reactions include individual contributors feeling liberated from the complexity and confusion of the functional structure, likely due to the removal of the competing attractor patterns; feelings of being respected and empowered to engage intellectually to improve their working environment; more productive working relationships across teams; more effective intra- and inter-team task exchanges; and improved outcomes for individual contributors, managers, and customers. Individual contributors reported that the needed alignment, integration, and autonomy needed to execute tasks effectively is inherent in their new working environment.

Regarding the finding of post-reorganization (i.e., a horizontal organizational structure) *task level* improvements for individual contributors from reduced TU and TI, this finding confirms and extends the literature on horizontal organizational structures. Horizontal organizations are positively associated with improved product quality, customer satisfaction, delivery time, product development, reliability, improved task clarity, reduced task reliance, and increased market share (Kohlbacher & Reijers, 2013). Fewer management layers and departmental interfaces associated with horizontal organizations maximize process efficacy and clarity (Jeston, 2018). Individual contributors in horizontal organizations demonstrate an improved ability to innovate and adapt to change (Giri & Ramakrishnan, 2019). The literature is confirmed through validation of individual contributors being more efficient and effective in their work rendering higher quality, reduced costs, and improved customer outcomes.

The finding of post-reorganization (i.e., a horizontal organizational structure) *task level* improvements for individual contributors from reduced TU and TI extends the

literature with new insights. The new learnings occur at the four category levels (i.e., task, individual contributor, team, and process). At the task level, participants reported improvements in task alignment, coordination, responsibility, and transparency that were not reported in the literature. At the individual contributor level, participants reported being better able to focus, having clearer responsibilities, being able to problem solve, and being more versatile with a wider range of tasks. At the team level, participants reported improved communications, greater flexibility, improved respect, and new feedback loops. At the process level, participants reported better awareness of end-to-end processes, greater appreciation for the processes they follow, improved coordination, and increased understanding of their role in value creation for customers.

Regarding the finding of post-reorganization *personal* improvements for individual contributors from reduced TU and TI, this finding extends the literature on horizontal organizational structures. The new insights occurred within the individual contributor category and offer impactful understandings. Individual contributors reported positive personal feelings of confidence, equality, worth, motivation, excellence, kindness, and family. Additionally, they felt more useful, knowledgeable, and connected to their work leading to a sense of relief and improved job satisfaction. The new organizational form has invoked a visceral reaction from individual contributors by allowing them to contribute directly to their organizations' respective missions. Letting individual contributors engage in decision-making, process improvement, and innovation instills in them a new sense of purpose and ownership that triggers positive personal emotions (i.e., positivity, confidence, commitment) and behaviors (i.e., proactivity,

willingness, openness). Post-reorganization, individual contributors exhibit a greater appreciation and respect for the broader organization as they see how it collectively adds value and leads to customer outcomes. This new level of engagement and awareness leads to individual contributors who are more invested in their work and the organization with a greater level of resilience to change.

Analysis of this finding indicates an important connection between working conditions, individual contributor performance, and firm performance. The horizontal organizational form appears to greatly improve working conditions by directly addressing many of the negative aspects reported under functional specialization, TU and TI specifically. The improved horizontal working environment leads to more effective and efficient individual contributors who are more informed and invested, as opposed to the ignorance and apathy found under functional specialization. Having more effective and efficient individual contributors results in improved outcomes for the customer and the organization. This finding provides the best example of how the current study fills a gap in the literature while also contributing to positive social change.

Regarding the finding of new insights informing what reorganization efforts should include to ensure individual contributor success, this finding extends the literature on reorganizing to a horizontal organizational structure. Due to the differences between the horizontal organization and functional specialization, individual contributors experiencing a reorganization will require extensive coaching that is not currently present in the literature. A critical difference between functional specialization and a horizontal organization is the level of responsibility bestowed upon individual contributors. Under

functional specialization, individual contributors receive direction (i.e., what they are to do), and validation (i.e., how well did they do it) from superiors above them. Under a horizontal organization, they receive their direction and validation largely from peers, or customers (internal and external). This requires that individual contributors must become more confident and self-reliant by learning how to focus less on obedience and more on empowerment and responsibility.

A second critical success factor for individual contributors involves training on the key systematic differences of a horizontal organization, namely decision-making, process authority, issue resolution, and multiskilling. Tactical decision making in a horizontal organization occurs mostly at the individual contributor level, requiring clear parameters and guidelines to ensure successful outcomes for the company and their customers. Under a horizontal organization, formal process authority transfers from functional managers to process owners so the new governance framework must be clearly documented and explained to all individual contributors. Based on a hyper-focus on processes that is inherent with a horizontal organization, issues resolution methods (i.e., monitoring, detection, root cause analysis, escalation, corrective actions, etc.) for how to address process breakdowns must be clear and understood. Another difference in a horizontal organization is the requirement for individual contributors to go from being single-skilled (i.e., specialized) to being multi-skilled. This requires training on the new skills that will be needed to be a productive member of a process team or process area, as opposed to a specialized department.

A final critical success factor to ensure individual contributors will flourish involves straight forward designs to avoid unnecessary complexity. Excessive complexity is a predominant issue with functional specialization, therefore; the horizontal organization must seek to simplify the working environment, especially in the areas of end-to-end process design, process-enabling technologies, and organizational change management (OCM) methods. End-to-end processes should be defined at the same level as the new process-based teams, or process areas, with no more than 3 to 4 core process areas total, each with a process owner (Ostroff, 1999). The new core process areas should be supported by enabling technologies that specifically make process execution by individual contributors easier, providing structure while also allowing for intervention as needed. Individual contributors must be trusted to manage their work without overly strict controls enforced by technology. Once operational, straight forward means of supporting ongoing innovation and implementation to individual contributor sponsored enhancements should be supported by OCM methods that are thorough but not overly burdensome.

The findings from the current study demonstrate that neither the horizontal organization itself, or the methods of reorganization to become horizontal are understood and treated exactly the same across geographies and companies. Each organization represented by the participant pool has shown slight differences that have offered deep understanding when aggregated. The realization from this observation is that opportunities exist to offer best practices that will improve organizational design decisions and the resulting implementation projects.

Limitations of the Study

The limitations that were anticipated prior to the execution of the study included participant recall (i.e., participants that experienced a reorganization several years prior to the interview) and participant biases (i.e., participants that had hoped to achieve a management position in the top-heavy functional organizational structure). These limitations were not witnessed by the researcher during execution. No other limitations related to trustworthiness were experienced from execution of the study. Credibility, establishing effective participant selection, verifying captured data, and remaining transparent throughout the research process (Rubin & Rubin, 2012), was ensured through reflexivity, member checks, data saturation, and peer review. Transferability, making qualitative research applicable to broader contexts or other respondents (Ravitch & Carl, 2016), was established via thick descriptions and variation in participant selection. Dependability, relying on data's consistency and stability to accurately answer research questions (Ravitch & Carl, 2016), was obtained through the sequencing of multiple data analysis steps and methods. Confirmability, addressing the reality that qualitative researchers are subject to objectivity and biases and seeking proactive mediation (Ravitch & Carl, 2016), was achieved through reflexivity and peer review.

While no known limitations were encountered during execution, there are always ways to improve upon a qualitative study. Repeating the current study or conducting a longitudinal version of the current study are two ways to test the findings. Every effort was made to ensure the integrity of the current study throughout the design, recruitment, data collection, data analysis, and findings.

Recommendations

The current study has addressed a significant gap in the literature and has provided new insights that will improve organizational design decisions for senior leaders and practitioners. Despite these contributions, there is always room for more research to continue the learning process and contribute to positive social change. Recommendations to support this ongoing journey include further research into the effects of a horizontal organization on management coordination; use of the horizontal organization in early-stage entrepreneurial firms; longitudinal observation of horizontal organizations; reviews of horizontal, BPM, and BPR literature to understand what could have led to the estimated 70% BPR failure rates; and more research into the conditions of individual contributors.

The contingencies of TU and TI have been shown to result from functional specialization (Henk & Fallmyr, 2020; Park et al., 2020) and coordination has been shown to be management's primary response to offset these negative influences (Burton & Obel, 2018; Desantola & Gulati, 2017). Therefore, by association it is logical to conclude that reducing TU and TI may reduce the need for management coordination. As depicted in Figure 1, this is a significant opportunity for further research. Understanding how a horizontal organizational structure may reduce the need for management coordination will potentially contribute to reducing task execution complexity for individual contributors while also improving conditions for managers and reducing costs associated with these activities.

The current study focuses on companies that have reorganized from functional specialization to a horizontal organization as a means of contrasting the two modes of operation. However, there is much that can be learned from studying how early-stage entrepreneurial firms may make use of a horizontal organizational structure prior to ever establishing a functional organization, thus avoiding the need to reorganize. Early-stage entrepreneurial firms eventually reach a point where growth requires a more formal structure beyond the scrum-like environment of the initial founders all performing multiple roles. It is at this point where senior leaders must choose what type of organizational structure is best for their situation. Understanding how a horizontal organizational structure differs from the traditional models (i.e., functional, product, geographic, and divisional) is important information to have to inform these decisions.

The current study is limited to exploring the experiences of individual contributors who lived through a reorganization from functional specialization to a horizontal organization within the last 5 years. However, there is value in studying the long-term effects on individual contributor experiences after a reorganization via longitudinal studies. Internal and external organizational conditions change on a regular basis; therefore, it is important to understand how well the horizontal organizational form stands up to the test of time. Evidence from the current study indicates a greater level of resilience to change at the individual contributor, team, and process levels, so this resiliency is the logical focus for these studies. Senior leaders will want to understand the longevity estimates of a horizontal organizational structure as reorganizations are very

disruptive and costly and they will want to minimize the frequency of these types of changes.

Another opportunity for continued learning is a detailed literature review into the implementation techniques of BPR initiatives of the 1990s. In the current study, I revealed a discrepancy between how the authors of that time depicted the problem to be solved, versus the solutions that were offered. In his seminal article, Hammer (1990) clearly blames organizational structures as part of the problem to be solved. However, my research into BPR implementation techniques did not identify any that recommended changing the organizational structure. The value of this regressionist research lies in the clarification of BPR's reputation as a failed fad. While Hammer (1990) did not recognize functional specialization as a root cause issue, the current study confirms Hammer's 1990 observations as correct in identifying organizational structures as problematic. The legacy of BPR as being largely unsuccessful has given senior leaders pause in adopting its successor BPM (and by association horizontal structures). Therefore, understanding that the message of BPR was effectively lost in translation will hopefully reassure senior leaders that BPM can be trusted.

Lastly, the literature review conducted for the current study uncovered the disturbing reality that far less research is conducted at the individual contributor level than at the management level. The current study has demonstrated critical facts about modern organizations. Value creation of products or services occurs largely at the individual contributor level. Specialization and hierarchy (i.e., effectively what we call management) are assumed to be required to optimize results at the individual contributor

level. Functional specialization includes both specialization and hierarchy and creates TU and TI for individual contributors. Considering these facts together shows that what we consider to be management, actually complicates matters for individual contributors and detracts from value creation. Therefore, I submit that more research is needed into how to improve conditions for individual contributors and not how to make better managers. With individual contributor conditions optimized, management should only be needed to the extent that it is needed (i.e., addressing what individual contributors can't do), and to the extent that it improves value creation.

The additional research recommended here will further our understandings of the applications and limitations of the horizontal organizational structure and how it can contribute to positive social change. The horizontal organizational structure is based on an academically rich and multidisciplined foundation and it therefore deserves to be considered seriously by organizational development academics and practitioners at the same level as its predecessors (i.e., the functional, product, geographic, and divisional structures). Due to the strong connection between the horizontal structure and a strict focus on business processes, resolving the reputational issues of BPR will contribute to building trust in BPM and help assure practitioners that the horizontal structure is not just another fad. Understanding when and how entrepreneurial firms should introduce the horizontal organizational structure could contribute to growing economies across the globe, including micro-business in developing nations. The recent interest in *transformations* (i.e., Digital-, Agile-, and Process-Transformations) provides opportunities for the re-introduction of the horizontal organizational structure.

Implications

The findings from the current study provide tangible benefits to positive social change at the individual contributor, organizational, and societal levels. There are also meaningful methodological, theoretical, and practical implications that are noteworthy. The tangible benefits to positive social change that occur at the individual contributor level are centered around the positive personal and emotional reactions reported following a reorganization. Individual contributors communicated feeling more knowledgeable and effective in their work leading to the very personal emotion of feeling worthy and valuable to their organizations. The sense of worth and value led to individual contributors being more connected to their companies with higher job satisfaction. The horizontal organization removed many of the negative individual contributor experiences and replaced them with positive experiences.

By defining and exposing the full range of end-to-end, value-adding tasks to individual contributors, a horizontal organization reduces TU and complexity for individual contributors while improving task execution. By aligning the organizational structure with the process structure, a horizontal organization reduces TI and tensions between individual contributors that are created by narrowly defined, specialized tasks. By empowering and trusting individual contributors with task level decision-making powers, a horizontal organization offers them intellectual engagement that instills pride and dedication. These benefits lead to positive social change by improving working conditions at the individual contributor level where value-added task execution occurs to create products and services for customers.

The tangible benefits to positive social change that occur at the organizational level can be attributed to an overall focus on core business processes as well as individual contributor level benefits. At an organizational level, focusing on business processes as opposed to functional reporting, removes the distraction of the second attractor pattern that draws attention away from value-adding tasks and the customer. The new focus creates a robust process environment that is capable of self-correcting by allowing individual contributors to speak up and act to make corrections. This process environment leads to improved customer outcomes and customer satisfaction through improved quality and delivery. Having happier individual contributors also contributes to improved customer outcomes as they are more likely to have direct contact with customers. These organizational benefits all lead to improved organizational success through improved operations and satisfied customers. The horizontal organization removed many of the negative organizational conflicts and replaced them with positive dynamics.

By removing specialization by department and replacing it with process teams that support a large segment of the overall end-to-end core business process, the horizontal organization provides unification of strategy, purpose, and goals. By removing some of the hierarchy and multiple levels of management and replacing it with a greater emphasis on empowered individual contributor roles and value adding tasks, the horizontal organization reduced decision-making complexity and delays. By removing the complexity introduced by TU and TI, the horizontal organization benefits the entire organization and leads to improved outcomes.

The tangible benefits to positive social change that occur at the societal level can be attributed to the combined benefits to individual contributors and organizations. Happier and more successful individual contributors generate positive energies for themselves, their families, and their communities. More successful organizations invest in growth sustaining activities like hiring and capital investments to sustain their success. These combined positive energies can lead to improved consumer and organizational confidence and potential economic value as individuals and companies stimulate local economic growth. Local economic growth can lead to wider economic growth through either the expansion of use of horizontal organizations or via the supply chain affect as one organization's success buoys that of all suppliers down to the raw material level. The application of the horizontal organization is not bounded by geographic, industry, or socio-economic constraints; therefore, the potential societal benefits from its widespread usage are incalculable.

By improving conditions for individual contributors by reducing or eliminating TU and TI, the horizontal organization improves task focus, task execution, and task outcomes resulting in happier employees, satisfied customers, and improve organizational performance. By improving conditions for organizations by reducing costs, improving quality, and growing productivity, the horizontal organization creates local economic value that can expand to support societal level value. By improving conditions for societies through the collective growth and prosperity of multiple organizations and industries, the horizontal organization represents an important organizational design choice for the future.

The methodological implications of the horizontal organization offer insights for BPR, BPM, and incremental process improvement methods (i.e., Six Sigma, Lean, TOC). The methodological approaches associated with BPR surfaced suddenly in the early 1990s without academic rigor or research. The origins of BPR can largely be associated to one individual and one article. Careful examination of the originating and subsequent BPR publications reveal discrepancies in the original message versus how it was to be implemented. The current study validates the original publication as accurate in pointing to organizational structure as part of the foundational problem; however, it invalidates the subsequent publications which disregard the importance of organizational structure. By vacillating on the role of organizational structure in the improvement of business operations, the author may have done more to confuse practitioners and contribute to the estimated 70% failure rates of BPR initiatives. The horizontal organization offers an alternative approach to BPR that may render higher success rates.

The methodological implications of the horizontal organization for BPM are in confirming the use of the horizontal organization as part of an overreaching BPM program. The majority of the academic literature on BPM does not advocate for the horizontal organization; however, the current study confirms the importance of including a reorganization as part of a broader BPM program. The methodological implication of the horizontal organization for incremental process improvement methodologies lies in the distinction of when to apply each approach. The current study shows that the horizontal organization should be implemented before attempting incremental models to eliminate the negative effects of TU and TI that can undermine improvement efforts.

The theoretical implications of the horizontal organization offer insights for SCT and coordination theory. Regarding SCT, the primary contribution revolves around the validation of what Donaldson (2001) called *reverse causality*. Within SCT, the original and primary chain of causality states that contingencies (i.e., TU and TI) occur first triggering a management reaction to make structural changes to regain fit; however, Donaldson (2001) posited that structure (e.g., functional specialization) may cause contingencies through reverse causality. The current study provides evidence of the existence of reverse causality thus contributing to the theoretical literature on SCT. Additionally, the current study expands the extant literature on SCT by adding a new structural model (i.e., the horizontal organization) to the traditional list of structures considered under SCT (i.e., functional, product, geographic, and divisional).

The theoretical implications of the horizontal organization that offer insights for coordination theory revolve around the connection between a reduction in TU and TI and a resulting reduction in the need for management coordination, a topic identified for future research. Coordination theory attempts to address the need for more effective means of managing dependencies within a system, such as an organization, but does not challenge, compare, or recommend specific organizational structures (Crowston, 1997; Molenveld et al., 2019; Wall, 2019). The findings of the current study indicate a strong and direct correlation between reduced levels of TU and TI and a diminished need for management coordination, as evidenced by participant feedback. The impacts of a horizontal organization on coordination theory should be studied further to fully validate this connection.

The empirical implication of the horizontal organization for practitioners involves new knowledge into structural design decisions. Selecting an organizational structure is a critical decision as the result of that decision is a significant factor in determining the division of labor (Burton & Obel, 2018) and how individual contributors are grouped prior to executing tasks as part of cross-functional, or horizontal, workflows (Raveendran et al., 2020). The current study has shown that functional specialization leads to TU and TI which negatively affects individual contributor's ability to execute value-adding tasks. Also shown is that the horizontal organization reduces TU and TI thus improving working conditions for individual contributors and improving task execution. This new knowledge is important for senior leaders who are considering an organizational structure change or original design.

Conclusions

The key learning from the current study revolves around organizational design decisions. Organizational design decisions must be made from a systems-thinking viewpoint with knowledge of how the new structure will impact individual contributors and their ability to execute tasks. Through prototyping or scenario analysis, senior leaders must be cognizant of any TU or TI that their new designs may create in the entire system. An organizational structure is synonymous with a skeletal structure that determines the effectiveness of rest of the system. Just as with the human body, a defect in the skeletal structure will greatly prohibit the rest of the system from performing as expected. Organizational design decisions must be treated as important as selecting a strategy or mission with the requisite level of diligence and thought.

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Appendix A: Interview Questions

Walden University College of Management and Technology

Interview Questions regarding the Study: Individual contributor experiences of Task Uncertainty and Task Interdependence under Different Structures

Exploring task uncertainty will be done through questions regarding task responsibility, scope, and procedures under the pre-and post-structural configurations. Specific task uncertainty questions include (see question flash cards at the end of this document):

- Compare and contrast your experiences navigating shared task responsibilities (i.e., consistency and accuracy of the received inputs needed to do your job) under the two structures.
- Compare and contrast your experiences navigating task procedures (i.e., knowing where, when, and how to hand-off your outputs to other groups) under the two structures.
- Compare and contrast your experiences navigating task scope (i.e., knowing the full sequence of steps to follow to complete your work) under the two structures.
- Compare and contrast the company organizational chart under the two structures.
- Compare and contrast your job description under the two structures.
- Compare and contrast one of your standard operating procedures (SOP) under the two structures.

Exploring task interdependence will be done through questions regarding task alignment, urgency, and decision-making under the pre-and post-structural configuration. Specific task interdependence questions include (see question flash cards at the end of this document):

- Compare and contrast your experiences navigating task alignment (i.e., knowing how tasks flow from upstream groups to you and then to downstream groups) under the two structures.
- Compare and contrast your experiences navigating task urgency (i.e., knowing how to prioritize your tasks to synchronize with upstream and downstream groups) under the two structures.
- Compare and contrast your experiences navigating task decision-making (i.e., knowing where, when, and by who task decisions are to be made) under the two structures.
- Compare and contrast your experiences remaining aware of task changes (i.e., becoming aware of changes upstream or downstream) under the two structures.
- Compare and contrast your experiences adapting to change (i.e., ease of adjusting to upstream or downstream task changes) under the two structures.

Interview Flashcards

The following interview flashcards will be displayed one at a time during the interviews and read aloud by the researcher to ensure that participants fully understand each question and have a visual reference as needed. Microsoft PowerPoint slides will be used for the actual interviews to provide easy navigation for the researcher.

Interview Question #1	Topic: navigating task responsibilities	
Compare and contrast your experiences:	consistency and accuracy of the received inputs needed to do your job	under the two structures.
Interview Question #2	Topic: navigating task procedures	
Compare and contrast your experiences:	knowing where, when, and how to hand-off your outputs to other groups	under the two structures.
Interview Question #3	Topic: navigating task scope	
Compare and contrast your experiences:	knowing the full sequence of steps to follow to complete your work	under the two structures.
Interview Question #4	Topic: organizational structure	
Compare and contrast:	the company organizational chart	under the two structures.
Interview Question #5	Topic: job description	
Compare and contrast:	your job description	under the two structures.
Interview Question #6	Topic: standard operating procedures	
Compare and contrast:	one of your standard operating procedures (SOP)	under the two structures.

Interview Question #7	Topic: navigating task alignment	
Compare and contrast your experiences:	knowing how tasks flow from upstream groups to you and then to downstream groups	under the two structures.
Interview Question #8	Topic: navigating task urgency	
Compare and contrast your experiences:	knowing how to prioritize your tasks to synchronize with upstream and downstream groups	under the two structures.
Interview Question #9	Topic: navigating task decision-making	
Compare and contrast your experiences:	knowing where, when, and by who task decisions are to be made	under the two structures.
Interview Question #10	Topic: remaining aware of task changes	
Compare and contrast your experiences:	becoming aware of changes upstream or downstream	under the two structures.
Interview Question #11	Topic: adapting to task change	
Compare and contrast your experiences:	regarding the ease of adjusting to upstream or downstream task changes	under the two structures.