ORGANIZATIONAL PREPAREDNESS REQUIRED FOR SYSTEM IMPLEMENTATION

by

Kaitlyn McCollum

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Abstract

Enterprise resource planning (ERP) systems are currently in high demand as organizations seek to streamline, synchronize, and synthesis operational information, efforts, and resources to make decisions swifter and operate more efficiently and effectively. As the results and benefits of system output are realized within the market, organizations seek to implement ERP systems but are not successful because their organizations are not prepared prior to implementing the system. As a result, organizations search for a roadmap or collection of best practices as a guide for organizational preparation prior to system adoption and implementation. But these materials are lacking within the industry. The purpose of this research project is to illuminate the research problem of the lack of organizational preparedness required to successfully adopt and implement ERP systems to decrease supply chain disruptions and increase profitability. This research project was conducted using a constructivism paradigm within a flexible design and was executed using the single case study method. The participating organization and 15 volunteer participants allowed the researcher to use tools such as surveys, interviews, and performance metric extraction to obtain information and data, and to code, sort, and analyze it for the discovery of themes. Anticipated themes were discovered and confirmed through research findings. Data was triangulated to further verify the feedback's validity, creditability, and reliability. Persistent themes highlighted research results and the critical need for organizational preparation prior to system adoption and implementation, providing a basis for insight into additional areas for further study.

Key words: Enterprise resource planning systems

Dedication

This research paper is dedicated to the most supportive, inspirational, God-fearing, and self-sacrificing parents anyone could ever desire. This project is dedicated to my mother who sacrificed her own grad-level academic progress to devote her entire self to motherhood and her children, giving us the grit and tenacity needed to succeed. To my father who decided education was truly a lifelong endeavor and obtained a second master's degree after the age of 55. This work is dedicated to my paternal great grandmother who was a maid and to my paternal grandmother who desired an education but was not permitted into universities of her choice due to a segregated South; she earned her degree and became a teacher despite all challenges. This work is dedicated to my maternal great grandmother who was a sharecropper with a fourth grade education, and to my maternal grandmother, who possessed only a ninth grade education and scrubbed the floors of a university she could only imagine attending. To my great uncle who rose to the rank of Lieutenant Colonel in the United States Army in the 1970s when the thought of Black Officers was still a scarce rarity, paving the way for my father, a Military Veteran and retired Army Officer who provided our family a robust and cultured upbringing. This work is dedicated to my great aunt who obtained the first doctoral degree in my family, earning it in the 1970s when little black girls obtaining doctorate degrees before the age of 30 was only a fairy tale. This project is for all those who came before me and laid the foundation, to all those who fought silently for my ability obtain and sustain academic prowess. This project is also dedicated to my brother who provides the laughter and joy needed to persevere through difficulty, and lastly, to my daughter, Kamora, age 3, who's smile lights up a room, whom has allowed me to be a mom and a student, demonstrating no dream is too big. This work is dedicated to all of you.

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Section 1: Foundation of the Study

Logistics is a global industry that enables the procurement, acquisition, assembly, packing, and delivery of products and services to a global customer base. To facilitate the manufacturing, production, and customer receipt of goods and services in a cost-efficient and functionally effective manner, multiple modes of business operations must be synchronized to rapidly transfer and share information, allowing algorithms to synch data to provide production, manufacturing, finance, and freight solutions to current and future potential problems. This synchronization of information and data inputs is conducted through an enterprise resource planning (ERP) system that enables current and clean information to be synchronized with diverse current and accurate information from various departments such as finance, marketing, procurement, transportation, and assembly, producing solution sets to organizational leadership and enabling decisive and predictive decision-making using algorithmic outputs. As benefits of ERP systems become largely recognized and their solution sets prove to be valid and dependable, based on the success of their use and their tangible results, a larger number of organizations are looking to adopt and implement ERP systems. The implementation of ERP comes with uncertainty regarding if the acquiring organization is properly prepared both internally and externally to adopt and implement a new ERP system. With the assumption that the proper type of ERP system is chosen to fulfill the organization's requirements and needed function, questions about what steps should be taken within the organization to ensure personnel, processes, and data are properly suited and ready to be input into a system are still ambiguous. This research study was curated to provide insight, a roadmap, and a collection of best practices that outline the necessary organizational pre-work suggested for an organization to complete prior to implementing a new system to help ensure the successful implementation of that system as measured by a decrease in supply chain

disruptions and an increase in profitability. Using a constructivism paradigm aligned with a flexible design that allows for use of new and pertinent information as it arises to be implemented within single case study research, a conceptual framework has been crafted to answer pertinent research questions related to the overarching research problem and purpose.

Background of the Problem

In an ever-changing operational environment, integrated enterprise resource systems are created to gather organizational and operating environment information and synchronize that information with internal organizational processes, procurement, purchasing, and production to predict, schedule, and measure output, distribution, and consumption. Carvalho and Guerrini (2017) affirm that enterprise resource systems heavily depend on accurate and reliable information being input into the system. Enterprise resource systems are comprised of sophisticated algorithms that can perform complex computations related to finance, budgeting, procurement, production, scheduling, manpower, labor and production costs, customer consumption, lifecycle longevity, maintenance, and many other business related functions. Johansson and Svensson (2020) explain that for accurate predictions and measurements to be produced through the system, accurate environment must be inputted; there must be trained personnel who know how to operate and perform queries in the enterprise system, and the organizational structure must be aligned and framed around allowing the enterprise resource system to dictate daily operations. Lastly, Johansson and Svensson (2020) also describe how leaders must allow the system to lead company decision-making and must align their decision-making with system outputs, predictions, and data findings. In past business practice, these aforementioned components have not been in place and aligned before system implementation; thus, the system has not been able to provide the accurate and reliable decision point outputs

expected before implementation. There has been no established model companies can use to prepare their organization for institutional, process, and system change. Singh and Ramdeo (2020) stress the need for the creation of a standardized process change model that companies can use to prepare their organization for change and ensure the change meets the intended outcome. Thus, an in-depth study into the role, nature, and necessity of organizational preparedness before the adoption and implementation of integrated enterprise resource systems was necessary to prevent unsuccessful company performance once the system was adopted resulting in the inability to streamline supply chains, logistics operations that do not possess durability or longevity, increase in supply chain disruption and decrease in profitability.

Problem Statement

The general problem to be addressed was potential lack of the organizational preparedness required to effectively adopt and implement integrated enterprise resource systems, resulting in an increase in supply chain disruptions and a decrease in profitability. Carvalho and Guerrini (2017) affirm the process, personnel, and profit challenges organizations experience that leave the organization with inaccurate data processing, ill-equipped employees, and a decrease in profits because a reference model or method for internal preparation was not used when adopting and implementing enterprise resource systems, thus making enterprise resource system adoption problematic and un-beneficial to the organization. Seeking to avoid process delays, inaccurate outputs, and personnel conflict, Johansson and Svensson (2020) warn about the fatal problems organizations often encounter when they do not prepare or adjust internal operations before enterprise resource system implementation, specifically addressing the two critical components that often suffer the worst during change: employee system knowledge and IT technology infrastructure. Singh and Ramdeo (2020) demonstrate the fundamental gap in

organizational operations that erodes when organizations do not craft and adhere to strategic change plans because there is no roadmap to ensure critical organization components such as durability and longevity are created and sustained while combating supply chain disruptions and shifting profitability during transitional periods. The specific problem to be addressed in this research was the potential lack of formalized internal data audits and systems checks to cleanse data and align existing system processing with daily operations in preparation for the adoption and implementation of integrated enterprise resource systems within the logistics industry in the northeastern United States, resulting in increased supply chain distributions and decreased profitability.

Purpose Statement

The purpose of this study was to explore why organizations lack the preparedness required to effectively adopt and implement integrated enterprise resource systems. Through this study exploration, insight and understanding were be gained on how this lack affects supply chains, their ability to be lean, durable, or tenuous, as well as the potential effects of a lack of preparation on supply chain disruptions and an organization's profit margin. Understanding the consequences of poor preparation highlighted the necessary organizational components that must be analyzed, prepared, and fixed before the adoption of integrated enterprise resource systems to ensure successful implementation resulting in improved and streamlined supply chains and ensuring the durability and longevity of logistics operations, while decreasing supply chain disruption and increasing profitability.

Research Questions

RQ1. How can an organization successfully adopt and implement an enterprise resource system?

RQ1A. What actions and behaviors contribute to an organization’s ability to successfully

adopt and implement integrated enterprise resource systems?

RQ1B. What actions and behaviors contribute to an organization's inability to adopt and implement integrated enterprise resource systems?

RQ2. How can successful adoption and implementation of enterprise resource systems improve and streamline supply chain management operations?

RQ2A. What actions and behaviors contribute to the improvement and streamlining of supply chain management operations through successful system adoption and implementation?

RQ2B. What actions and behaviors prevent the improvement and streamlining of supply **c**hain management operations through a successful system adoption and implementation?

RQ3. How does organizational preparedness during the adoption and implementation of integrated enterprise resource systems ensure organizational durability and longevity?

RQ3A. What actions and behaviors contribute to an organization's ability to ensure durability and longevity during the adoption and implementation of integrated enterprise resource systems?

RQ3B. What actions and behaviors contribute to an organization's inability to ensure durability and longevity during the adoption and implementation of integrated enterprise resource systems?

RQ4. How does the lack of organizational preparedness contribute to or result in a decrease in supply chain distribution and a reduction in profitability?

Nature of the Study

Discussion of Research Paradigms

A research paradigm is a model or method of research that is established and followed by researchers that characterizes how research will be approached. According to Park et al. (2020), "Research paradigms guide scientific discoveries through their assumptions and principle." There are four types of research paradigms: positivism, post-positivism, pragmatism, and constructivism. Each type describes a different approach or worldview researchers bring to their study that represents the researcher's reality or truth.

Positivism

Positivism focuses on a single objective or hypothesis that, through experimentation and testing of variables, is discovered to be real or valid and used to inform (Park et al., 2020). This paradigm type focuses on the absorption and understanding of human behavior through the lens of reason and observation. This paradigm was constructed on the assumption that only one reality exists that can be identified, understood, and measured (Park et al., 2020). Within research, one can locate and identify the positivism paradigm with two distinct components. The first is epistemology which seeks to understand what reality is, its nature, and the concept that it can be discovered and measured, seeking to ensure validity and scope within measures. Second, the concept of ontology provides insight into how individuals come to know and understand things, separating oneself from the object to be studied, measured, and analyzed, which often leads to experiments and qualitative study initiatives (Cleveland & Bartsch, 2019). These two components lead to further understanding of the paradigm's unique ability to predict behavior after it has been observed, studied, and understood. This paradigm is useful for testing theories, as theories are constructed around the routine behavior and acts of others that have been

observed and understood. Lastly, positivism enables hard rules or laws to be identified and crafted surrounding the objects being observed, thus creating a rule concerning human behavior. Its axiology focuses on the idea that a researcher's values should have no role in the research inquiry, thus ensuring the research and the researcher are separate.

Post-Positivism

Post-positivism explains the idea that the mere identity of the researcher consciously and subconsciously influences what one observes and notices, thus impacting ideas and concepts the research concludes (Groff, 2004). This paradigm seeks to eliminate biases and bias theory through the recognition and workaround of such biases, thus arriving at objective answers. This paradigm highlights the extent to which a researcher's values influence facts and methods selected and conducted within the research. Laws and theories are often built through a causal relationship that works together to describe the external world. Due to laws and theories being built on causal relationships, knowledge is known to be changing and to a degree fallible. Through this paradigm, it is understood that reality is built and formed through people and their experiences (Engle, 2014). Post-positivism uses inductive reasoning to discover a reality that one can never fully understand. According to McGregor and Murnane (2010), "The post-positivistic paradigm assumes that research should not be value-free and unbiased but be value-laden, subjective and intersubjective, even value-driven within the critical paradigm." Similar to positivism, post-positivism is built on the ontology that there is a truth; however, epistemology is where they differ in that posit-positivism believes in a limited ability to know the truth yet still seeks to uncover it with full determination. Its axiology focus on removing one's internal bias or value sets from the research to maintain self-separation from the component being observed and studied.

Pragmatism

Pragmatism is a paradigm which focuses on a problem more than a view of reality, thus its ontology illuminates the ability of multiple truths to be present and that those truths vary according to individuals and contexts. This paradigm uses any tool available to help better understand the problem and its epistemology, describes knowledge as being created between the researcher and the participant and being unable to independently exist or become independent from the researcher since said specified truth was collaboratively created (Bogna et al., 2020).

Constructivism

Constructivism is a type of research paradigm that describes reality as being determined by an individual, and the researcher seeks to understand that reality. According to Mir and Watson (2001), "Constructivism…focuses on how researchers constitute theories in the act of describing them." Constructivism's axiology explains that values have a strong influence on research inquiry; thus, one needs to beware of the inclusion of value through discussion and detailed description. This focus often absolves the research from seeking a solution to the problem which was the primary focus (Powell, 2019).

Selected Research Paradigm

The paradigm selected for this study was constructivism. The foundation of constructivism is based on the idea that reality is determined by the individual and the researcher seeks to understand that view of reality (Pfadenhauer & Knoblauch, 2019). This paradigm allows the individual to create their reality, and the researcher throughout the entire work learns to view the idea or problem from this specific realistic perspective. Pfadenhauer and Knoblauch (2019) discuss the ability of a researcher to craft their reality, one that is internalized and then externalized through their perspective. The constructivism paradigm is focused on helping others

see a problem or issue in the same manner, with the same severity the researcher sees it, thus leading the researcher to understand the reality of the problem (Mir & Watson, 2001). The constructivism research paradigm encompasses the perspective in which a study is written, presents a specific problem as reality, and through the work conveys the reality of this problem to the reader or researcher.

The constructivism paradigm guided the problem being addressed in this study, which was the potential lack of formalized internal data audits and systems checks to cleanse data and align existing system processing with daily operations in preparation for the adoption and implementation of integrated enterprise resource systems within the logistics industry in the northeastern United States, resulting in increased supply chain disruptions and decreased profitability. The constructivism paradigm was chosen because it proposes a specific reality and walks the researcher through understanding the reality of the problem for themselves; thus, the researcher can validate, concur, and understand the reality of the specific problem within the logistics industry within the northeastern United States.

Discussion of Design

Research design provides a structural framework of methods and techniques available to the researcher to provide structure to the research. Design determines how the researcher studies the problem from a macro perspective while simultaneously providing a systematic and structured approach to discover and make inferences among the unknown. Design encompasses the collection of data that includes critical information related to the research. Three types of designs define how the researchers study problems based on the method chosen within each design. The three types of design are fixed design using quantitative methods, flexible design

using qualitative methods, and mixed methods design using quantitative and qualitative methods (Schoonenboom & Johnson, 2017).

Fixed Design

In a fixed design, the researcher executes the research as articulated in the initial proposal using quantitative analysis tools. A fixed approach does not change as research is conducted and findings evolve. A fixed design is used for experimental studies that are heavily numerical and rely on precise measurements (Wang et al., 2018). This design focuses on the collection of data and statistics to investigate connections between data points and statistics, analyze variables, and define causes and effects among established variables. Due to the fixed nature of the design, research parameters are not able to amend as variables are identified and relations between data are discovered. A fixed design focusing primarily on quantitative metrics heavily determines the type of research done with elements and factors that numerically create relationships and provide data-based conclusions (Leonard & Ambrose, 2012). This fixed method is best for research topics that rely on metrics and measurements to conclude with predetermined procedures that contain objectivity, and for topics that do not require the flexibility to change and evolve as new information is discovered (Harris, 2019). A fixed research design would not be ideal for topics where revelations or conclusions are drawn, and more information is uncovered. This design provides a more rigid structure for data-driven research.

Flexible Design

Flexible design has a loose structure, and it is defined in the research proposal that as the research and findings evolve the researcher can adjust the research as needed. The flexibility of this design is predicated on the nature of the information usually not being numerical; thus, there are no restrictions during the discovery and accumulation of data and information. The flexible

design uses qualitative tools and allows for freedom when collecting data without having to strictly abide by a pre-determined collection structure or matrix (Allaverdi & Browning, 2020). The main difference with the design being flexible, as opposed to fixed, is that it can evolve during the research as new and emerging information becomes available or is discovered. Qualitative and quantitative data can be used within the flexible design to formulate conclusions and solution sets. A flexible design is preferred when trying to further uncover or understand a philosophy, occurrence, or idea because flexible design enables the mode and method of inquiry to change or evolve to the most applicable or appropriate technique even if incrementally discovered as new data is obtained. Research topics that are not numerical, such as human relations, are best suited for flexible design due to the ability to change the research method of scope as more information related to the topic is discovered (Božanić & Sinha 2020). In diverse scenarios, researchers may see the need for one technique to be used that was not initially selected to maximize the validity, depth, accuracy, and intensity of knowledge gathered for analysis. Due to the flexibility of this design, it is not suited for numerical and data-driven research topics that require a fixed structure for the system and algorithmic patterns to remain constant and valid (Prominski & Seggern, 2019).

Mixed-Method Design

Mixed-method design allows for the use of both fixed and flexible designs. This design uses both quantitative and qualitative methods in an equal way for the purposes of triangulation. The mixed-method design is preferred for research that requires statistics, such as studies centered on demographics and populations (Downward & Mearman, 2006). Mixed-method design provides the unique ability for researchers to craft a predetermined structure concerning modes and methods of data collection while conversely being able to change and shift

information collection techniques as new and emerging critical data is sourced and analyzed. Topics that are both theoretical and numerical-based allow for comprehensive research that encompasses both metrical and relational data (Creswell, 2014). The mixed-method design allows for a researcher to gain the benefits of both methods without the hindrance of either method, enabling both quantitative and qualitative techniques to be used, studied, and analyzed.

Selected Research Design

This study was conducted with a flexible design using the qualitative method; a single case study design was be used. Methodology refers to the strategy in which the research and study are conducted (Allaverdi & Browning, 2020). Within that strategy, a flexible design was the most appropriate methodology for this study because flexible design methods are defined in a general sense as part of the research proposal, and following the proposal, the researcher was free to adjust the research as necessary using a qualitative tool. Allaverdi and Browning (2020) discuss the ability of flexible designs to be assessed, selected, and integrated throughout the entire study. Flexible design also looks to minimize uncontrolled variations in the development of the study and allows for discoveries within the study to change the course of the case study where need be. The flexible design was preferred for investigating an organization's potential lack of preparedness because the design allowed the reality of the problem to be identified, explored, and shaped based on the research produced through the case study. The associated research questions addressing what components are needed for organizational preparedness and why organizations lack this preparedness were a primary source of insight into how to frame the study most effectively. The flexible design allowed the study to be shifted based on the response to these key questions. The flexible design was most applicable to this research because, as the logistics industry was studied, it was imperative that techniques could be added or taken away

from the research method to ensure the correct information was captured that was most applicable to ERP system adoption and implementation.

Discussion of Method

A research method encompasses the researcher's approach, strategy, tools, and techniques that are used to collect observations, information, data, and metrics to analyze and draw conclusions to arrive at new understandings and revelations (Tobi & Kampen, 2018). Within every research approach, there are methods also known as tools that are used when conducting research. A chosen method develops into the research methodology. Under each design, various methods can be used to guide and construct the research. Within a flexible research design, there are five methods: narrative, phenomenology, grounded theory, case study, and ethnography.

Narrative

A narrative design method is focused on collecting and telling stories and characterized by studying people or groups of people (Zhou et al., 2020). Narrative design is a form of qualitative research that emphasizes the telling of stories in grave detail and the collection of those stories. This method is often used for researching a person, their background, or their personal history. Narrative design is commonly used in documentaries and testimonials where the stories of others help to build an argument or stance for or against the chosen topic.

Narrative design is a powerful tool because it often contains real people describing their life experiences, including the emotional and mental characteristics involved in a story, thus making their experience come to life for the reader and the researcher (Hege et al., 2018). This conveyance of an experience or an emotion felt within the story of an experience has proven to be convincing and extremely effective for reader buy-in. Within the narrative design, narrative

analysis is often conducted to gather an in-depth understanding of how storytellers or research participants develop, construct, and emphasize their stories by drawing attention to specific parts, components, or elements of a story while glazing over other aspects. The way a research participant constructs their own story conveys what elements they have found significant and exemplifies the way their personal experiences have shaped, molded, or impacted their own life. The drawback of using a narrative design is the reliance of the researcher on the research participants' account of their life experiences with no means of validity-checking to ensure a story's accuracy (Liestoel, 2019). When composing research solely based on narrative accounts, the research results could be biased and produce a skewed view of reality due to the results being based on a person's account of their life. It is also critical to understand and investigate the components of a story or experience that the participant does not share as this investigation often provides balance to the factual components within a story.

Phenomenology

Phenomenology focuses on the commonalities and experiences of people and is preferred for the research and study of groups of people and various ethnicities (De Chesnay, 2014). Phenomenology is a qualitative research approach that studies the daily occurrences of participants to understand universal phenomena in their daily lives. This method focuses on how phenomena occur in participants' daily lives and how such occurrences are experienced and perceived. This type of research is often conducted using case studies to include interviews, observation, focus groups, and conversations that are most effective at displaying and bringing an individual's perception of their own experiences to the forefront. This design often encompasses an interpretive dimension as similar events are seen diversly through the lens of diverse participants (Prpa et al., 2020). When using this design type, having rapport and empathy

for the participants' life experiences enabled a researcher to uncover more depth into a person's life, story, and experience, thus enriching the information gathered and the research conclusions to be produced. The error with phenomenology design is the potentially skewed result or research conclusion drawn from the recounting of one's personal experiences, with components being under or over-evaluated including under and over-exaggeration of components of an experience or one's perception or misconnection of the significance of said life experience (Home & Paul, 2019).

Grounded Theory

The grounded theory method focuses on systematic data collection and analysis that is preferred for studying data, systems, and processing (Shim et al, 2021). Grounded theory is a method of formulating theory from data that was collected in the field to include constant comparison, simultaneous data collection and analysis, theoretical sampling, memo writing, and theoretical saturation (Guetterman et al., 2019). This method is focused on the development of a theory that has a foundation "grounded" in data or metrical information that has been allegorically gathered through systematic collection and analysis. Through a systematic or routine collection of data, the data is sorted and analyzed. From the analysis, a theory, summation, or assumption is developed. This theory garners meaning or solution sets from data points. The benefit of this theory is that because the data is numerical it eliminates bias, while on the other hand, the theory allows the data or numerical algorithm to tell a story or draw a conclusion from the data that may not be accurate or valid due to the limited possibility of now fully understanding what each data point means, consists of, or was affected by (Konecki, 2018). Very similar to the phenomenology design, grounded theory looks to expand upon the explanation of phenomena that occurs in research participants through the identification of key

elements within and then categorize the relationship or link between identified content elements to compose or propose a relevant theory (Bryant, 2019).

Case Study

The next method is the case study which is comprised of either a single case study or a multiple case study. Case study methods are used to explore constructs related to how a company or person maneuvers a situation, or, using multiple companies or groups of people as a comparison tool, to evaluate and discover how various companies, people, or groups of people handled the same situation differently, thus demonstrating different results (Yin, 2003). Case studies allow for in-depth, diverse, and multi-faceted investigation, data collection, and analysis of complex, multi-dimensional issues in their real-life, real-world contexts. Case studies breathe life into real-world scenarios and enable theories, conclusions, and data to be extracted from the scenarios, emotions, and outcomes of people and organizations. Within a case study, specific research questions aid in guiding the study and pinpointing specific areas of interest. Often, case studies are most useful and helpful in scenarios where a topic or circumstance may be underappreciated, trivialized, under-valued, or ignored. Case studies illuminate the experiences of those facing such issues, giving the issues life, depth, and importance (Khalifa et al., 2020). Case studies are most frequently used in cases of business, policy, or law. Understanding a scenario in its natural state of occurrences along with its original context adds value to the research and enables the researcher to draw valued conclusions from the study. Case studies allow the experiences of groups to be evaluated and compared to other groups in similar circumstances, thereby illuminating areas of disparagement or maltreatment. Case study research methods provide insight and critical details in hopes of attaining an in-depth understanding of a

case, situation, or scenario as an integrated whole (Chirapanda, 2019). Case studies are not well suited for data-driven or algorithmic studies.

Ethnography

Ethnography is qualitative-focused and studies specimens or people in their real-life environment (Müller & Brailovsky, 2021). Ethnography describes study through direct observation of a person, people, or users in their natural environment rather than in a staged environment or a lab. This method is preferred for the observation and research of children and animals to see and experience how they naturally move, process, and interact with themselves and others. This research method is highly informative because it allows in-depth data to be gathered from the unique behaviors of those being observed when they are not interrupted and their environment is not altered (Guillen-Galve & Bocanegra-Valle, 2021). Changing an environment for a subject being studied often changes the way they perceive or process data. Children specifically often behave more reservedly in unfamiliar environments and are less likely to speak, move, or maneuver and play as they would in their natural environment. The same is true for animals; studying animals in their natural environment brings authenticity to their actions and responses and provides the researcher with a day-in-the-life-of experience. Using ethnography, a researcher may be able to conclude subjects concerning themselves and their relation to their environment. Connections and links can often be seen and evaluated when subjects are acting in a familiar environment (Parson, 2018). This research method is not well suited for research that heavily depends on numerical data and algorithmic calculations due to the relational nature of the method and the natural environment requirement.

Selected Research Method

This study was conducted with a flexible design using qualitative method; specifically, a single case study design was used. The case study further demonstrated and illuminated the consequences of organizations lacking preparedness before enterprise resource system adoption. The case study design functioned as real evidence and proof of how preparedness before system adoption and implementation can help ensure organizational longevity and durability, minimize supply chain management disruptions, and avoid decreases in productivity. Wieringa (2014) describes how a single case study and individual cases can be used to explain a phenomenon or teach or a lesson based on the outcomes observed. This case study design was pivotal because it clarified the problem through means of demonstration. The case study research method was the best method for this research because it allowed the researcher to display a company in a specific scenario and illuminate how the organization navigated through the scenario. This method allowed the research to highlight factors that were and were not considered in real-time while the organization navigated the scenario (Cakar & Aykol, 2021). The case study illuminated how being unprepared for system adoption and implementation can result in disruption of supply chains and thus cause a decrease in profit margins. A case study could also provide insight into how organizational preparation before the adoption and implementation of an ERP system enables seamless processing of system operations and thus prevents supply chain disruptions and mitigates potential risk, maintaining or even increasing profit margins. A case study was the best method because case studies allow the researcher to help the reader interpret the organization and their experience, and provide a solution set to be used in a similar scenario in the future.

Discussion of Triangulation

Triangulation takes place in qualitative research when various research methods, data sources, and research findings are used in culmination or collaboration to uncover or discover a new and significant phenomenon or understanding (Carter et al., 2014). Triangulation is a powerful tool that combines or draws lines of connection to uncover a deeper, more connected truth. There are four types of triangulation: data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. These triangulation types work to validate a thesis or hypothesis and bring a deeper and broader understanding to a conclusion thought to be true. When a researcher uses multiple methods to answer a single question and produces the same results, it strengthens the credibility and validity of the research findings. Triangulation also works to dismiss and minimize bias because research conclusions are not just drawn from one source or method but bring together multiple sources and modes that all point to and uncover the same truth.

Data Triangulation

Data triangulation focuses on metrics and data, time measurements, and people to answer the research question (Carter et al., 2014). This type of triangulation is good for metric-based research. Data from various sources can be corroborated in support of or in direct opposition to the research question or hypothesis if one is present. Data triangulation is most often seen as valid and creditable because it is assumed to have little to no biases. This perception is not always accurate, as data can be sorted and used to prove or disprove a belief and display an inaccurate depiction of a situation. To avoid this misuse of data, Jentoft and Olsen (2019) describe how data triangulation can be combined with other techniques as a bulletproof method to synchronize survey results with interview results and other data to ensure an accurate

depiction is reflected via three modes, thus strengthening the results and conclusions drawn from the data and all methods used for triangulation. Using multiple methods with at least one method being data triangulation brings validity to the findings because of the previously mentioned assumption that numbers do not lie and dually because numbers are thought to be bias-free. This verification of findings enables enriched respect for data triangulation based on the increase of confidence in the findings.

Political and scientific fields of study heavily rely on data triangulation to draw valid and credible conclusions from which solution sets are formulated. Researchers must ensure data is collected identical and does not contain outliers that could skew data results and lead to inaccurate data conclusions. Hasselt (2021) discusses the need for data triangulation, as the use of one or two data sources is not sufficient to draw a comprehensive and all-inclusive view of a topic. The use of surveys runs the risk of non-responses and under-reporting; thus, surveys are not a holistic approach to data collection. Interviewing is a source of information but often does not yield easily quantifiable answers; thus, interviews can render the same non-response or under-reporting hazard. As Hasselt (2021) found, the best approach is a comprehensive, holistic data triangulation approach that uses multiple data sources to data mine and collect data. That data can then be corroborated to provide a more complete and credible view of the research topic and solution set, seeking to answer the research questions.

Investigator Triangulation

Investigator triangulation involves multiple researchers and the comparison of the theory researcher's findings. Investigator triangulation seeks to increase the credibility and validity of research findings through a comparison of multiple research findings (Noble & Heale, 2019). The use of various investigators enriches research findings since information is gleaned from

different perspectives. The use of multiple investigators, interviewers, observers, or data analysts allows for the cross-referencing of findings and stories to find the common thread or theme. These various modes enable understanding of the research problem from different vantage points. Cross-referencing materials collected, without information tampering by way of pre-discussion to decide points of emphasis, can greatly increase the finding's accuracy and credibility. Combining findings from various investigator perspectives and modes of research brings depth to the information presented and draws a bigger picture from which conclusions can be made. Multiple observers and researchers allow for the coverage of one another's blind spots in research findings, thus uncovering the topic of research in totality (Govender et al., 2022).

Theory Triangulation

Theory triangulation uses multiple theories or theoretical schemes to bring better interpretation and understanding of the research and happenings (Wray et al., 2007). This type of triangulation is used to understand theories and concepts. According to Noble and Heale (2019), "Combining theories, methods or observers in a research study can help ensure that fundamental biases arising from the use of a single method, or a single observer are overcome." When examining a situation, the use of components from multiple theories provides insight into the exploration and explanation of a situation or scenario, thus providing causation through theory triangulation. This concept of multiple theories culminating to explain a research question is the purpose of theory triangulation. This technique is often used during the study of humans, human behavior, culture, and society. Theories related to a human perspective, such as Johari's window, combined with Maslow's hierarchy of needs explaining humans based on a tier spectrum, combined with the theory of transformational or servant leadership, can culminate in an in-depth

understanding of human behavior based on their current needs and how they view the world and themselves (Oved, 2017).

Methodological Triangulation

Lastly, methodological triangulation is comprised of using various and multiple methods of information gathering to draw conclusions and connections. This type of triangulation is often used in case studies to draw various aspects of the story together to decipher a concrete conclusion (Casey & Murphy, 2009). Methodological triangulation describes the use of multiple methods to create triangulation between various factors. A flexible design incorporating methodological triangulation allows for diverse research methods and modes such as surveys, interviews, observations, data documents, and questionnaires. Within a case study, having the ability to interview key personnel such as leaders and decision-makers, gather general information and insight from employees via questionnaires and observation of the work, and conduct analysis of data documents and process outputs is beneficial because it provides insight into how the various courses of information uncover the depth and true source of potential organizational problems.

Selected Triangulation Method

The selected triangulation method for this research topic and applicable questions was methodological triangulation. This study was conducted with a flexible design using qualitative methods, specifically methodological triangulation Methodological triangulation allowed for the use of various information sources and modes of information collection to draw connections and links to further explain the research topic or answer research questions. The use of multiple methods to study one topic or occurrence allowed for information on the topic to be gathered from many different perspectives, thus enabling the culminated thoughts, ideas, and solution sets

to be comprehensive and holistic, the researcher having studied and considered the research topic from all angles, perspectives, vantage points, and lenses of interpretation. When researching the potential lack of organizational preparedness required to effectively adopt and implement integrated enterprise resource systems, the topic had to be studied from varying perspectives to form a comprehensive, all-encapsulating view of an organization's need for an ERP system and the organizational condition required before system implementation including an organization's culture, personnel, and processes through each phase of system implementation including, adoption, execution, and sustainment. In addition, data-driven metrics were extracted from the legacy operating system and the newly implemented ERP system for examination of the effectiveness of system implementation on manpower and labor, supply chain disruption, and the overall profit margin. Additional research was conducted via employee and leadership interviews, surveys, and observation to gather findings on the analysis and assessment of organizational business culture, operating environment, employee perspective, and system training and its effectiveness to meet and exceed organizational and system demands. Using the outlined variety of research approaches to gather pertinent information, and triangulate that information to discover common threads and causes and address all facets of business operations, provided a comprehensive view of organizational preparedness, culminating in a more accurate and precise view of the root cause of the problem, giving way to easily applicable, realistic, and workable solution sets. Methodological triangulation was the only source of triangulation that would allow the various types of information sourcing such as surveys, observance, data collection, and interviews to all be used to triangulate the information to discover common threads that link interview answers to survey results that are then seen in the numerical data, thus validating the research findings. The findings provided answers to research questions and insight

into how organizational preparedness before ERP system adoption and implementation can help organizations avoid an increase in supply chain disruptions and a decrease in profitability.

Conceptual Framework

A conceptual framework describes the big picture of the problem. Associated inputs and outputs to the problem illustrate the causes and effects of the problem. The research framework displays how the actor's actions influence the problem and how information flows throughout the potential problem through the various problem components. Such problem components include constructs, theories, concepts, and variablesm, all contributing to or affecting the problem in various ways. The framework provides a high-level view of how each component specifically influences the problem. This bird's eye view offers a clearer picture of the research and how to best understand the problem's intricacies.

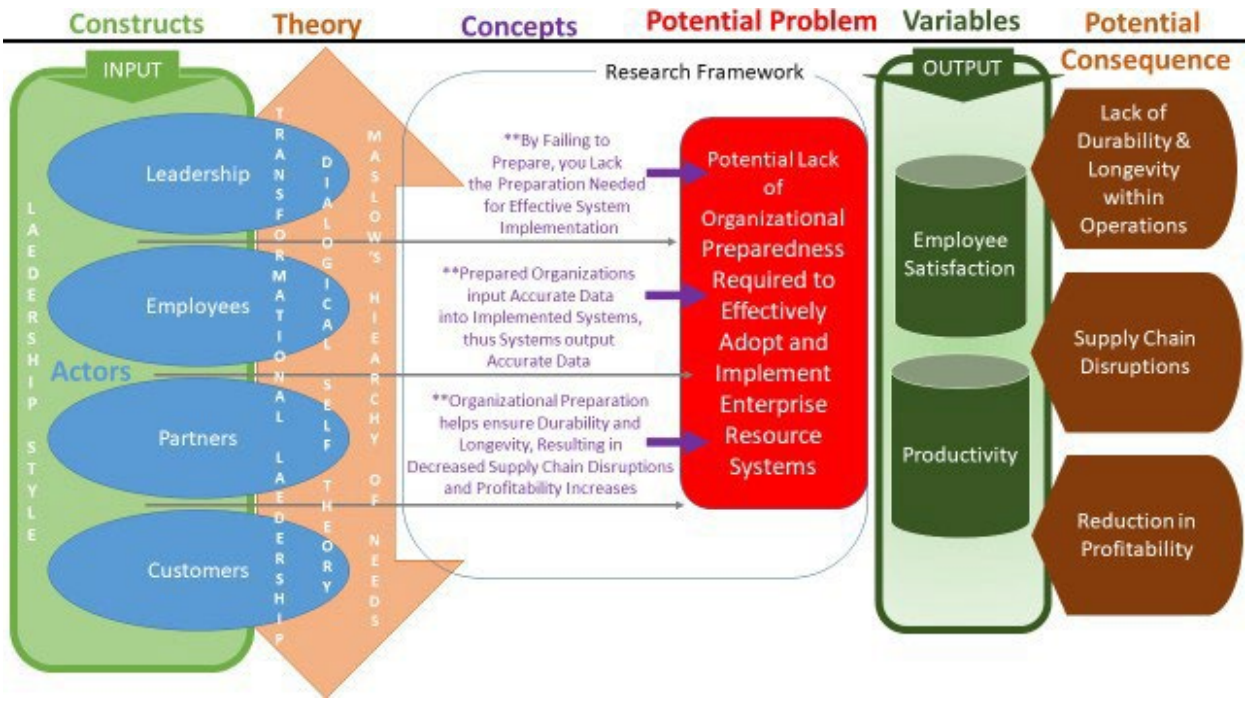

Figure 1. Conceptual framework diagram (information flow indicated by arrows).

Concepts

By Failing to Prepare, You Lack the Preparation Needed for Effective System Implementation.

Boge et al. (2018) mention this statement as a warning, indicative of the need for preparation. The concept highlights that when there is no preparation, the obvious and most likely result is failure. This concept was the foundation of the research problem that addresses the lack of organizational preparedness before the adoption and implementation of enterprise resource systems. This concept was directly applicable to this specific study. This concept explains that by failing to prepare, components of business such as data, processes, personnel training, and organizational culture have not been prepped to analyze the potential changes or shifts each component will undergo because of the organizational change. This concept highlights the importance of preparing an organization from the inside out so all systems, data, processes, people, customers, and partners are aware of the coming changes, how each component will be affected, and the existing mitigating factors and tools that can be used or implement to subdue the change, thus helping to ensure the change yields positive results for the organization. This concept indicates its own reverse, that by preparing, organizations possess the means for a positive outcome. Understanding this common concept was paramount to understanding the core of the problem being discussed; when there is a lack of preparedness within organizations, organizations often experience failure during the adoption and implementation of enterprise resource systems.

Prepared Organizations Input Accurate Data into Implemented Systems, Thus Systems Output Accurate Data.

Rocco (2016) explains this concept, indicative of the idea that if one places correct inputs into a system or process the outputs are also good; however, if bad or inaccurate inputs, data, or processing are placed into a system, bad and inaccurate data outputs from the system will be the result. This concept was directly applicable to this research study as it emphasizes the need for companies to prepare for system change by ensuring all data going into a new system is accurate so the system can work as designed to produce accurate data and data point conclusions for decision making. This statement reiterates the idea that there is nothing wrong with the system or process; rather, the inputs to the processor system have not been prepared, cleaned, or verified for accuracy; thus, even though they are processed through an accurate system, the output will most likely be inaccurate or bad. This concept echoes the core of the problem that preparedness affects the ability of the system to perform correctly once it has been adopted and implemented. If personnel are not prepared and trained, processes not streamlined, and data not cleaned before the adoption and implementation of an enterprise resource system, then all outputs are corrupt and inaccurate.

Organizational Preparation Helps Ensure Durability and Longevity, Resulting in Decreased Supply Chain Disruptions and Profitability Increases.

Manjunath and Arjun (2015) explain how this concept addresses how much easier it is to prepare for organizational adoption and implementation than to not be prepared and end up spending double the time and resources trying to fix issues that could have easily been prevented in the preparation phase. This concept was directly applicable to this research study as it demonstrates why organizations should take the time to clean data, streamline processes, and

train personnel on system changes before their implementation, so all components work accurately and seamlessly after system implementation, thus creating system, process, and organizational durability and longevity. This concept highlights that when organizations, along with their people, processes, and data, are prepared for change, their partners, customers, and supply chains are not negatively affected by disruptions; thus, there is not a significant drop or decline in their profitability. This concept highlights the idea that fixing minute issues or problems when they initially arise is more advantageous and much easier than fixing issues once they have enlarged to affect a larger portion of the organization or process, making the problem much more complicated and costly to resolve.

Theories

Transformational Leadership Theory

Raj and Srivastava (2016) describe the theory of transformational leadership as a theory grounded in the idea that leaders work with a team or organization to look beyond their current desires to come to a collaborative expected end. In this pursuit, leaders analyze the need for change and then visualize and actualize that needed change, accomplished through the collaborative efforts of the team while using the four types of transformational leadership to galvanize, inspire, motivate, and effect change (Raj & Srivastava, 2016). Transformational leadership works as a theory within the conceptual framework because it describes the leadership style necessary for leaders to adopt and utilize if a successful system integration is desired. This leadership style is necessary because this style focuses on working as a team to accomplish a goal. Transformational leadership is needed when organizations prepare for system and process changes because this leadership style looks past legacy norms and situational comfortability to analyze where necessary changes are needed and work to implement them. This analysis looks to

prevent work stoppages, bottlenecks, and any foreseen detour that could impede successful system adoption (Raj & Srivastava, 2016). The theory of transformational leadership is an undercurrent to the problem of organizations lacking preparedness to adopt and implement enterprise resource systems. Transformational leadership is required to identify a problem, craft a solution set, and galvanize the entire organization towards strategic change. The galvanizing of personnel is aimed at proactively motivating the workforce to mentally prepare themselves and their departments through training and a thorough awareness of existing processes. Awareness of existing processes enables staff to more easily pinpoint applicable areas for improvement or streamlining. Such preparation uses lean six sigma methodologies along with data cleansing to ensure clean data is used during the system adoption and implementation, thus curating accurate and dependable outputs. Transformational leadership style possesses the abilities needed to take an organization from its present state to its end state through system adoption.

Dialogical Self Theory

Dialogical self theory focuses on seeing one's self as connected to society and provides the ability to imagine oneself as a participant in a later picture (Gülerce, 2014). First developed by Dutch psychologist Hubert Hermans in 1990, this theory was critical to the conceptual framework and the research study because within organizational change and preparation for system and process changes each employee must see themselves concerning the greater whole or the bigger picture (Hermans-Konopka et al., 2018). The ability to internally understand how different participants play into a larger scenario helps organization employees, leadership, customers, and partners see how organizational preparedness for system implementation affects not only themselves but each participant involved. Embodying this theory enables all to see outside themselves, making each party less self-focused and more focused on working with one

another to achieve the larger goal (Grimmett, 2016). Using this theory to see oneself in different and diverse positions within a situation, circumstance, or society enables various windows of perspective and self-awareness to open. The interconnection of self and society is further discovered through dialogue and analysis with oneself.

This theory is unique in its ability to use dialogue, a tool most reserve for use with others, as a means for further discovery of oneself and one's place in society. This method introduces external features and factors to internal thoughts and perceptions and vice versa while incorporating oneself into the miniature societies of extended social circles; the self then includes internal positions such as roles one assimilates to, as well as external positions such as the group with whom one associates (Hermans-Konopka et al, 2018). This theory is perceived as complex, yet it gives awakening to an analysis of oneself as an internal and external entity operating in multiple societies and eco-systems simultaneously. Understanding this concept is critical to understanding how ideas like self-conflict, self-disagreement, self-judgment, and self-consultancy are all able to substantially exist within the society of self (Meijers & Hermans, 2018). This theory provides an in-depth basis for the understanding of people and how one's mind can be for and against self, simultaneously. This theory is a useful tool for managers and leaders to understand themselves and the employees that are comprised within their organization.

Maslow's Hierarchy of Needs

Maslow's hierarchy of needs describes humans in a hierarchical format that conveys how emotional needs such as self-esteem or self-actualization can never be fulfilled completely until a human's most basic physiological needs such as food, clothing, and shelter are met (Li et al., 2019). This model describes need fulfillment in a pyramid with physiological needs being the foundation, then the needs for safety, love and belonging, esteem, and lastly at the top of the

pyramid, the need for self-actualization (Upadhyaya, 2014). This theory was important to this conceptual framework and this study at large because it describes organizational employees during times of transition. An employee's ability to prepare their section or department for organizational system and process change often hinges upon the basic need for safety or job security. Once employees are reassured that their jobs are safe during system adoption, it builds upon the fourth need of esteem which enables employees to confidently prepare themselves, their data, and their internal department processes for a system change, knowing they are secure financially within the organization and do not have to fear job loss.

For organizational leaders, establishing this basic need for safety was imperative to get an employee to buy in and assist in organizational preparedness before system adoption and implementation. Employees buy-in and assistance help ensure successful system implementation because each department will clean their data, streamline their processes, and prepare themselves for training on the new system to avoid supply chain disruptions, which will prevent decreases in profitability. In contradiction to the established theory, as human behavior continues to evolve past the initial formation of the theory, it can be observed that at moments, based on situation or circumstance, people may reach for elements of higher tiered needs even when lower tiered needs have not been met (Oved, 2017). An example of this may be if an employee was not properly compensated for their work in a manner that was suitable for shelter, clothing, and food, which are first-tier needs, yet they continue to seek team inclusion, a second-tier need to belong. This employee may also seek to advance their education through additional degrees which involves the top tier need of self-actualization. In this way, employees seek self-actualization even though basic needs of survival through monetary compensation have not been met.

Actors

Organization Leadership

When planning to adopt and implement an enterprise resource system, the organization's leadership decides to institute organizational or system change (Johnson & Kruse, 2019). Leadership sees a need for a new system; thus, processes and procedures are augmented and changed to better adapt. The organization's leadership is responsible for preparing its people, processes, procedures, partners, and even customers for any change or system adoption and implementation. This preparation is important so that all components related to the organization can brace themselves or adjust operations to prepare for how change may affect the way business and commerce are normally performed (Johnson & Kruse, 2019).

Organization Employees

Faupel and Süß (2019) state that an organization's employees play a large role in preparing, or not preparing, an organization for system adoption and implementation. Organizational leadership often mandates preparatory actions on behalf of the organization and each employee, yet it is incumbent on the employee to perform specified actions to ensure the organization, its files, and data are prepared. The failure of employees to mentally prepare themselves and their department processing for system adoption and implementation could leave the organization unprepared for changes that may arise with system implementation. Employee buy-in on organizational system adoption and implementation is monumental when the workforce's efforts are required to ensure that implementation is successful.

Supply Chain Partners

Yan and Azadegan (2017) describe supply partners as critical actors during the adoption and implementation of enterprise resource systems. Supply partners are critical actors because

they are directly affected when internal processes and procedures do not flow smoothly. An organization that lacks preparedness before the adoption and implementation of the system can cause supply partners to not receive invoices and supplies. This disruption in the supply chain with partners and production updates could cause expensive miscommunication and costly supply chain disruptions.

Customers

Coleman (2017) states that the inability of an organization to be prepared before the adoption and implementation of an enterprise resource system directly affects customers, their commerce experience, and the quality and time frame of the deliverable. Customers are the core of any busy operation; without customers, businesses and organizations cease to exist. One bad experience, one faulty product, or one extended delay in receiving products can cause customers to permanently stop supporting an organization, resulting in a decrease in the organization's profit margin. Customers are affected by an organization's lack of preparedness for adopting resource systems.

Constructs & Variables

Leadership Style

Leadership style is a critical construct within the research concept. Leadership style is a lead factor in determining an organization's ability to be prepared for organizational change during the adoption and implementation of enterprise resource planning systems. Peng et al. (2021) state that leadership style helps define how the organization flows, grows, moves forward and proceeds during change. Leadership is an important aspect of any core organizational problem because leadership style often dictates and determines an organization's ability to successfully pivot, shift, and be flexible and reactive during system adoption and

implementation. Leadership style sets the atmospheric mood and corporate culture for the entire organization. The example and precedence set by leadership often dictate the actions and perceived acceptable behavior of the entire organization.

Different leadership styles are more applicable to different scenarios depending on impending risk or danger, type of subordinate, and atmosphere the leader wishes to evoke. The various styles of leadership include autocratic, authoritative, pacesetting, coaching, democratic, affiliative, transformational, and laissez-faire (Melton, 2021). Autocratic leadership tends to give orders and takes little consideration of the thoughts or opinions of others. This leadership style is most useful in emergency or critical situations with little consideration for alternatives. This style has often been used in political or uncertain climates. Pace-setting leadership is characterized by setting an example for followers; this style has been seen regularly in religious climates. The coaching leadership style provides suggestions to subordinates instead of mandating they adopt a thought pattern or solution. This is seen frequently in team leader situations. Democratic leadership takes a collaborative approach, polling followers on their thoughts, ideas, and feelings. This style is seen in collaborative teamwork. The affiliative leadership style seeks to put followers and subordinates first; this style seeks to encourage and uplift others. Transformational leadership seeks to lead subordinates through an intricate time of system, process, and procedural change. Transformational leadership is most useful during organizational change or times of war within a country. Lastly, the laissez-faire leadership style prioritizes going with the flow of processes with minimal oversight; this style is often seen in very mature work teams. Each leadership style is best suited for a varying situation and is most effective depending on the maturity, age, and skill level of subordinates. Choosing the most applicable leadership style is dependent on understanding the situation and the subordinate and developing the agility to be

able to move between styles based on the circumstance or changes in the scope or dynamic of followers (Melton, 2021).

The leadership style most suited for the organization during dynamic change innovation is transformational leadership. This leadership style is unique in that it specializes in cultivating an atmosphere conducive to change while simultaneously being inclusive and mindful of corporate culture, employee satisfaction, outlined objectives, and potential barriers (Trivedy, 2019). Transformational leadership seeks to incorporate all aspects of change and provide and produce mitigating aspects that address risky or adverse actions and behaviors that challenge the ability of the organization or group to meet its outlined goals and objectives (Standford-Blair and Gesner, 2019). Transformational leadership is the only style of leadership appropriate to shift organizations from a current state to the desired state to meet prescribed objectives. Transformational leadership is needed for organizational preparedness to ensure the successful adoption and implementation of enterprise resource planning systems to avoid supply chain disruptions while maintaining or increasing profit margins.

Employee Satisfaction

Furst and Cable (2008) state that employee satisfaction is a dependent variable that is an output of the system adoption and serves as a testimonial of the effectiveness of the chosen leadership style. During organizational system adoption, leadership must consider and incorporate employee desires, needs, and longevity components to ensure, during a time of shifting and change in processes and procedures, that systems remain stable. It is critical that all employees feel secure, valued, and able to tackle and conquer a new enterprise resource system and a new operating environment. Employee satisfaction increases the value of organizational

corporate culture and minimizes workplace issues, often creating a pleasant place for employees to work and thrive.

Employee satisfaction is an integral construct that highlights the core of the organizational foundation within an organization or business. Employee satisfaction is pertinent due to its ability to increase retention which decreases recruitment, in-processing, and training cost and promotes a positive work environment where employees are more likely to work cohesively on teams and collaborate to produce the best products and solution sets (Markridis & Han, 2021). Satisfied employees have committed to the goals and overarching mission of the organization; thus, they work harder to ensure the organizational objectives are accomplished. Employees who are satisfied with their job are more likely to introduce cost and time-saving ideas to the organization and to look for ways to streamline and make processes, procedures, and systems more efficient, thus decreasing the workload (Gross et al., 2021). Satisfied employees are often employees who are trained and feel equipped for and supported within their job role and are given adequate authority to execute their job responsibilities. Organizational training and employee preparedness are prime components of organizational preparedness before the adoption and implementation of the enterprise resource system. Ensuring employees are given advance notice of an upcoming organizational change, how they will be affected individually and collaboratively, and the identification of needed training on a corporate level are essential elements to change management (Goretzki et al., 2021). Organizational leadership addressing these primary components can work to maintain and even increase employee satisfaction during times of change and innovation, thus providing a stable work environment through the system and ensuring morale and cohesion remain constant as how the organization conducts business drastically changes.

Productivity

Productivity is a construct that can be operationalized to a measurable metric, thus becoming a variable within the research that can be measured and compared numerically. Chakrabarti and Chatterjea (2018) state that productivity serves as a sign or signal of whether a leadership style is effective or ineffective and a strong indication as to whether the adoption and implementation of the resource system are successful. Productivity is an engagement that demonstrates and highlights whether the leadership style is able to lead and inspire the organization to adequately prepare for the adoption and implementation of enterprise resource systems to sustain and increase productivity while minimizing supply chain disruptions and sustaining or increasing the profit margin (Malik et al., 2020).

To properly measure productivity, objectives and related metrics must be established. Objectives with measurable metric parameters are used to compare performance data and productivity before system adoption and implementation with productivity after system adoption and implementation (Jin, 2019). Such objectives could outline product production with a measurable metric of a specified number of items per day or week. Analyzing the organization's ability to meet this metric before and after system adoption and implementation highlights the potential effectiveness of the system on the organization’s objective and whether it has improved or inhibited its ability to meet or exceed the prescribed metric. Performance metrics surrounding productivity provide a data-driven lense into system performance analysis and answer questions about the effectiveness, efficiency, and predicted performance of the newly adopted and implemented system. Metrics confirm that the system indeed meets its desired end goal, or the system contains errors that need to be remedied for the system to perform as expected to meet the organization’s intent of the system and its overarching quantified objective.

Productivity can be used as a data-driven construct concerning personnel performance involving work performed by the volume and can be used to identify competency gaps concerning the volume of inaccurate work performed, re-work, and system or process failures related to personnel input errors (Gosnell et al., 2020). Placing parameters on employee work helps organizations quantify their employees' ability to perform work accurately in a specific, measurable, accurate, realistic, and timely manner. Identifying data-driven lapses in productivity through a decrease in the volume of work produced or the accuracy of that work gives organizational leadership a clear sign of what operational and training gaps exist within known processes, understood procedures, and knowledge competencies (Harris, 2020). Pinpointing and understanding the impact of productivity lapses in specified areas can serve as a roadmap for personnel improvement that leads to an increase in process and procedural accuracy, thus increasing productivity and enabling the organization to reach outlined objectives.

Relationships Between Concepts, Theories, Actors, Constructs, and Variables

A research diagram provides a visual depiction of the relationship between the concepts, theories, actors, and constructs within a research concept. Research is composed of inputs known as constructs. Constructs operate independent mitigating factors within research. Constructs provide broad topics or concepts that serve as inputs such as leadership style, which was related to this research. Such inputs are directly connected to actors that consist of organizational leadership, organizational employees, supply chain partners, and customers. Constructs affect how information flows between the various actors and often affect the actions of said actors. Actors are key people or groups of people who are central to the research problem. Actors are often influenced by concepts and theories. Concepts describe commonly held views that lack a formal definition. Relevant concepts in this research include: by failing to prepare, you lack the

preparation needed for effective system implementation; prepared organizations input accurate data into implemented systems, thus systems output accurate data; and organizational preparation helps ensure durability and longevity, resulting in decreased supply chain disruptions and profitability increases. The concepts are widely held viewpoints within society that influence the actions and perceptions of actors. Theories are very similar to concepts in that they also influence the thoughts and actions of actors. A theory pertinent to this research was the theory of transformational leadership, as described by Raj and Srivastava (2016), which depicts the idea that leaders work with teams or organizations to work towards a collaborative goal or end state. This theory affected the mode of operation and maneuvers of all actors involved to include organizational leadership, organizational employees, supply chain partners, and customers. Lastly, dependent variables serve as outputs to the conceptual framework which include variables such as productivity and job satisfaction that work as mitigating factors used for grouping, from which measurements or assumptions can be drawn about the efficiency or effectiveness of the system or the entire conceptual framework.

Definition of Terms

Defining commonly used terms within research is critical to a shared understanding between the reader and the researcher. Without a shared understanding, the reader may not accurately interrupt the information or research findings the way the researcher intends. Miscommunication concerning terms can skew the entire intent or discovery of research. Creating a shared perspective through key term explanation is vital to create strength and understanding throughout the research.

Enterprise Resource Planning System

Enterprise resource planning systems are complex, integrated, and holistically synchronized systems that have internal capabilities to identify, analyze, evaluate, test, and monitor a complete process within an organization (Kumar & Gupta, 2012). Enterprise resource planning systems are often adopted and implemented to minimize ambiguity and uncertainty with a metrically defined process. Such systems use algorithms nested within the system in a proactive manner to identify potential threats, maximize upcoming opportunities, and actualize system, process, and organizational goals and objectives. Enterprise resource planning systems are often seen as one source, a complete approach to process alignment and risk reduction through measured and metric decision making (Kumar & Gupta, 2012). This type of system is vital for most organizations as it cross-functionally synchs all aspects of the business to provide accurate and timely data used for decision making.

Supply Chain

A supply chain encompasses all the tasks or activities need by an organization or company to sell a product or service to a customer. A supply chain often consists of five main components, including raw materials, suppliers, manufacturers, retailers, and consumers (Blanchard, 2021). The components pass raw materials through phases such as materials sourcing, procurement, manufacturing, assembly, packaging, and distribution to either a warehouse, retailer, or even to the end-user. A supply chain is often comprised of many partners, including suppliers and distributors, that all have a pivotal role in ensuring the company delivers a product to the specification the customer purchased.

Assumptions, Limitations, Delimitations

Assumptions

Assumptions are ideas or facts considered to be true and accurate but that have not been verified or vetted. There were two primary assumptions related to this research. These assumptions had to be identified, associated risks for each assumption discussed, and mitigation for each risk realized. This assumption identification was associated risk identification, and associated mitigation of said risk strengthened the validity of the research and research conclusion.

The first assumption was that the responses gathered within the case study from participants were accurate and true. Assuming the participant responses to be true was vital to the study because participant testimonials were needed to conclude the research. Assuming participant responses to be true was also risky and hazardous to the research in that false, inaccurate, or incomplete responses could skew the research findings and conclusions in a way that misrepresents the truth of what was occurring during the adoption and implementation of enterprise resource planning systems, thus making the solution sets provided within the research inaccurate (Palk et al., 2020). The risk mitigation to this assumption was to triangulate a participant's response with similar responses from other participants along with system output or organizational occurrences that would hopefully validate the responses of the participants.

The second assumption found in this research was that the enterprise resource planning system chosen had been customized and accurately fitted to the needs and desired outputs of the organization in which it was being adopted and implemented. This was an assumption because one must conclude the chosen system has the capabilities the buyer and user intend for it to have. This was also an assumption because, since the system engineers were not included in the study,

there was no way to prove the validity of this claim. This assumption was risky because it implied that any error or output inconsistency was related to the data inputs going into the system and not the system itself (Verma & Abdel-Salam, 2019). This causes the organization to question the validity of its data instead of analyzing the system's ability to function properly and process quantitative data through algorithms to produce decision-making metrical outputs. As a risk mitigation factor per the seller's warranty, one can rely on the money-back claim that if the system does not perform the functions it promised upon purchase the system can be returned or engineer technicians can configure the system to further meet the needs and intentions of the organization purchasing the system.

Limitations

Limitations describe the weakness of the study that must be brought to the forefront and mitigated in order to strengthen the validity of the research (Boyko, 2013). Weaknesses of this research study included the limited sample size since it was a single case study, and the nature of the organization that was adopting and implementing the enterprise resource planning system meant limited market comparison since it was singular in comparison with limited organizations or companies to which it can be compared. These limitations had to be identified, associated risks for each limitation discussed, and mitigation for each risk realized. This limit identification, associated risk identification, and associated mitigation of said risk strengthened the validity of the research and research conclusion.

The first limitation was the small sample size of the study. This research study was a single case study primarily because of the complexity of the organization. This required studying the organization singularly without a comparison within the research as would have been done with a multiple case study. Because of the small sample size, one may not know if the results of

the study are common across many industries or isolated to this organization in this industry. This question could leave readers to assume the problem being addressed was not a problem at all, simply an anomaly within its organization, or that it should be seen as a huge problem across the industry when it was only an anomaly within this organization within this specific industry. The second limitation was the peculiar nature of the organization which was being studied. The organization for this study was the Logistics Readiness Center. This organization was peculiar in nature because it could not be easily compared to another organization, though other organizations do some of the same or very similar functions as the Logistics Readiness Center. This was a risk because it limits the ability to perform comparative analysis with other companies, thus expanding the possibility of skewed data finds (Weiss, 2001).

To mitigate both limitations, triangulation between organizations that do perform similar functions and have adopted and implemented ERP systems was used to see if identified problems were common amongst the entire industry or just occurred with the Logistics Readiness Center. Triangulation was an asset, using a two-prong approach to make connections and links where there seemed to be none (Noble & Heale, 2019). With triangulation amongst organizations performing the same functions, the researcher was able to align those organization occurrences with those of other ERP system failures to access the similarity. The occurrence of ERP system failures was analyzed for commonality. In this way, the researcher could conclude if the sample size affected the findings or if other organizations experienced the same issues and if system failures can be attributed to the discovered issues.

Delimitations

Delimitations describe the scope of the study and outline boundaries of the study to identify specific components of the study that were not included. There were three primary

delimitations within this research study. The first delimitation was that this study was contained to only one small segment of the Department of the Army located in Virginia. It was important to outline this limit so readers could see that the problem, research findings, and solutions included in this paper were only found in respect to this small sub-sect of the Department of the Army. The second delimitation was that all aspects of leadership and their perspectives were not included in the research because the researcher was unable to obtain their opinions and perspectives. Readers need to understand the responses reflected in this research are not indicative of the entire Department of the Army executive leadership. The last delimitation was that the research did not involve the perspective of the enterprise resource planning system engineers nor their intentions or thoughts behind system interfaces and embedded algorithms. Readers need to understand this perspective was not included because of the researcher's inability to contact system originators, so comments about and refererences to the ERP systems were factually-sourced and obtained from research based on ERP system common knowledge.

Significance of the Study

This study was centered on the core problem of the potential lack of organizational preparedness before the adoption and implementation of enterprise resource planning systems leading to potential supply chain disruptions and a decrease in profitability. The research is significant because it addresses a core issue of organizations implementing ERP systems and the difficulty many organizations face in ensuring their organizational and functional suitability based on what components are required to be prepared and prepped before system adoption and implementation. It was imperative to discuss the parameters of the research concerning assumptions, limitations, and delimitations. Providing findings and solutions through this research will assist organizations in the successful adoption and implementation of ERP systems

because organizations will be aware of which critical components must be analyzed and prepared or cleansed before adopting and implementing a system. Critical preparation includes ensuring processes, data, and personnel are cleansed and flexible to properly suit the functionalities needed for proper system outputs and solutions. In examining the significance of the study, it is imperative to address the reduction of gaps in the literature, implications for biblical integration, and benefits to business practice and relationship to the cognate.

Reduction of Gaps in the Literature

Leading a company or organization is a grave task filled with many components that work together to produce a product or provide a service and earn compensation for the product or service. Within business, a product or service is the "what" but the supply chain, administrative tasks, and personnel often describe the "how." A brilliant business idea means nothing without the infrastructure to build and sustain a company. There are many how-to guides and multiple research studies that investigate how to start a business, how to grow a business, how to be successful in business, and the need for enterprise resource planning systems within a business. Though these guides exist, there is very little research that specifically addresses how to properly implement an ERP system and what steps need to be taken before implementation to ensure the system functions properly once implemented (Mahmood, 2020).

This proposed research will fill that specific gap within the literature. This research will inform readers on the pre-requisite steps that need to be taken before ERP system adoption and implementation to ensure that, once adopted, accurate information flows smoothly through the system and produces accurate, reliable, and algorithmically quantified data. It is essential to an organization that system outputs are accurate and timely because their information is often used for decision-making and process improvement.

Research on organizational preparedness will provide organizations and readers a greater understanding of the precautionary steps that can be taken concerning information, processes, and personnel that will enable the ERP system to function at its most optimal state, thus providing the results organizational leaders sought upon adoption. When organizational leaders have access to such pivotal information, it will enable them to lead change from the top. Once leadership and management are aligned on the need to clean data, streamline processes to identify non-value-added steps, and train employees on process changes caused by the new system and on operating the new system in its entirety, leadership will be able to see how thoroughly preparing each component is critical to the overall success of the ERP systems (Mahmood, 2020). This research is critical for leaders looking to adopt and implement an ERP system. The knowledge and insight this research will provide will expand the depth and breadth of an organization's self-awareness before system adoption and implementation.

Implications for Biblical Integration

Enterprise resource planning systems reflect the nature of Christ in their attempt to synchronize all operations and actions to work for the greater good of the organization or the larger goal to be sought after. ERP systems are often used to unite internal capabilities producing one power source that can perform a myriad of functions, including identifying, analyzing, evaluating, testing, and monitoring a process or product. Before ERP systems, business operations conducted stove piped operations where each function was performed separately in diverse systems that could not share information or transpose information from one department to the next in order to make it useful to each sub-component of the company for decision making (Bjorklund et al., 2018). The aforementioned situation was symbolic of the Bible's mention of the body and its many functions: "Just as a body, though one, has many parts, but all its many

parts form one body, so it was with Christ" (*New International Version Bible*, 1978/2011, 1 Corinthians 12:12). It was as if the ERP system was symbolic of the body of Christ in that it is comprised of many parts, though it is one system that possesses a higher calling or higher purpose than could be accomplished by one single component or department.

An ERP system is inclusive and can be customized to perform any business activity or process the organization desires. It can be seen as a system of many talents with the capabilities to perform many actions and processes. It mirrors the many gifts and talents God grants His children: "He has filled them with the skill to do every sort of work done by an engraver or by a designer or by an embroiderer in blue and purple and scarlet yarns and fine twined linen, or by a weaver—by any sort of workman or skilled designer" (*English Standard Version Bible*, 2001, Exodus 35:35). This verse is indicative of the biblical integration of ERP systems into business: to perform, as the scripture echoes, every sort of work that was previously performed by one skilled department or another. The two scriptures mentioned above demonstrate the resemblance of ERP systems to biblical conceptualizations in the unit of operations, processes, and functions and in the system's ability to possess many diverse skills. Both of these benefits of the ERP system allow organizations to operate in a united, synchronized, cohesive fashion that is aligned biblically with a scripture that conveys God's disdain for confusion: "For God was not a God of disorder but peace—as in all the congregations of the Lord's people" (*New International Version Bible,* 1978/2011, 1 Corinthians 14:33).

Benefit to Business Practice and Relationship to Cognate

The research being conducted will serve as an asset to all businesses interested in the adoption and implementation of ERP systems. The results of this research will be especially beneficial to the logistics industry since it was the foundation from which the research was

conducted. This research will complement existing research studies focused on the benefits of EPR systems, the need for ERP systems, and the potential root cause of ERP system failure (Boge et al., 2018). This study will provide a precursor as it outlines what preparatory steps need to be taken before the adoption and implementation of EPR systems to ensure proper organizational suitability and functionality once implemented. Having a specific guide that provides insight into what steps need to be taken before adopting a system is critical because it serves as the foundation for functional system success. Having a guide that discusses the importance of cleaning data, especially legacy data, so that embedded algorithms within the system will perform properly and produce accurate data outputs will be paramount to system success. Information about the importance of flexibility with existing processes and understanding processes may be altered upon the implementation of this system was key. Ridding existing systems of non-valued added steps will streamline processes, making them easier, quicker, and more direct, causing a reduction in the monetary cost of existing processes while providing the ability for the ERP system to execute the function more swiftly than previously done. This research will also benefit the businesses as it will provide insight on what training employees will need in order to become familiar with ERP system functions and new processes that may arise from the system implementation.

Employees also need to be prepared mentally for the change in process and perhaps the change in the organizational culture so their expectations can be managed. All aspects of organizational preparedness before ERP system adoption and implementation will be addressed in this research study and will serve as a benefit to business practices, helping businesses to successfully implement ERP systems with the steps provided and areas of concern addressed. This benefit will help reduce any supply chain disruptions and prevent a decrease in

organizational profitability because the organization, its data, processes, and personnel will be prepared for system change.

The chosen cognate was Logistics and Supply Chain Management. This cognate was directly related to the research study as the field of study for the research was the logistics arena and it focuses on the reduction of supply chain disruptions and the increase in profitability through organizational preparedness before the adoption and implementation of ERP systems. ERP systems are a critical component of a logistics company's operations because of the needed synchronization it provides. ERP systems are integrated information systems that collect inputs from various departments within an organization and synthesize the information into collaborative outputs that organization leaders can use to make decisions. ERP systems enable instant information sharing between departments; thus, each department can draw information from the system to make more accurate decision within their specific arena, making decisions using algorithmic data that is assumed to be clean, accurate and relevant, enabling real-time decision making based on metric data. Understanding the necessary preparatory work required for the successful adoption and implementation of ERP system will providing a roadmap for organizations and businesses to best prepare their personnel, reprocesses, and procedures for organizational change. Such preparation will reduce potential ERP system failure, minimizing supply chain disruptions, and ensuring profitability are maintained or even grows during a period of system transition.

A Review of the Professional and Academic Literature

Business Practices

Business practices describe how business is conducted and formally and informally outline the processes, procedures, protocol, and even the unspoken corporate culture that exists

within an organization (Ortiz-de-Mandojana & Bansal, 2016). Business practices often undergird an organization and are the foundation that enables established acquisitions, procurement, assembly, disruption, sales, market, and customer contact processes to fulfill their intended purpose. Effective and efficient, also known as lean business processes enable a company to reach its business acumen, sustainability, and profitability goals. Unproductive and ineffective business practices can be the cause of and aid in the decline, destruction, and dismantlement of a thriving business, thus creating a toxic work environment for its employees (Woodside, 2016). A stove-piped approach to business practices would insinuate that one system or operation does not affect another; whereas within most organizations, all processes are interconnected and have either a direct or indirect correlation to one another, producing either a value-added contribution or negatively affecting other processes and business operations. This element is critical to understand when discovering and implementing new business practices or analyzing existing ones for futuristic suitability, sustainability, functionality, and profitability.

Considering the general problem to be addressed was the potential lack of organizational preparedness to effectively adopt and implement integrated enterprise resource systems, it was imperative to investigate and analyze what existing business practices are in place that aid in the potential lack of organizational preparedness. There are three primary dysfunctional and ineffective business practices in place that contribute to the aforementioned problem. The inaccuracy of data input into the newly adopted enterprise resource system directly affects the organization's ability to create and maintain a robust data management platform, thus lacking data cleansing and recon procedures. Secondly, the lack of formalized training on existing system computations as well as advanced training on newly adopted systems to give employees familiarity and system capability and navigation knowledge. This was the preferred method but

currently, employees solely reply to co-workers to show, communicate, and demonstrate their knowledge of systems which was often flawed, inaccurate, or incomprehensive. Lastly, organizational leaders often adopt new systems without consulting subject matter experts within the middle manager to understand system implications, potential system complications, and anticipated organizational changes that may occur if the system is adopted and implemented.

Lack of Middle Management Consulting

When new or emerging innovation systems reach the global business operating environment, they are often marketed to companies with the promise to help improve their processes, department information sharing, and automation and increase their reliance on mathematical algorithms that can display operational strengths and weaknesses within the organization as well as areas for improvement. The most complex systems even offer solutions that would remedy problematic business areas. These types of systems are known as enterprise resource systems and often increase information sharing and make complex business decisions more simplistic as they are comprised of data assumed to be accurate instead of human intuition or luck. These systems are highly effective due to their ability to gather and operate from accurate and correctly scoured data. Such systems are often marketed with organizational goals in mind; thus, they seem to have very few drawbacks, except for the price, to system purchase and implementation. Often the upper echelon tier of a company makes decisions for the whole without fully understanding the associated implications that come along with such system adoption and implementation (Guggenberger & Rohlfing-Bastian, 2016).

Rohlfer et al. (2022) discuss the vital role of middle management and their contributions to innovation, process improvement, employee buy-in, and system implementation. Middle managers are often seen as grand mediators who can merge the process knowledge of employees

with the vision and direction of executive leadership, collaboratively combined with the expertise of middle managers who can see and understand the perspectives and challenges of business operations from the ground while simultaneously seeing the operation from a bird's eye view. Rohlfer et al. emphasize the need for middle management to be seen as innovating mediators that can capture the intent of the executive leadership while collaboratively pairing with the daily organizational dilemmas of the workforce. Taking those two perspectives and blending intention with possibility enables the organization's mission and vision to be realized. Rohlfer et al. (2022) further articulate and exemplifies why excluding middle managers from system selection and implementation is not wise when working to ensure the workforce buy-ins into the organizational change that will inevitably affect personnel, processes, and procedures.

Adopting a system without consulting subject matter experts often creates negative employee sentiment, thus creating a negative work environment. Many times, organizational leaders are shielded from the work complications of operating such systems daily and only see the overall success of a system or its grave failure. Consulting middle management organizational leaders enables a true synopsis of the system's effectiveness and any negative implications that may surround its adoption (Guggenberger & Rohlfing-Bastian, 2016). Middle managers consider many factors outside of the scope of leadership such as raw material inputs, procurement specifications, manpower strength, production parameters, and minute product specifications that all result in a great product but may not be obvious to the naked eye (Cheng et al., 2017). Lack of employee inclusion and middle manager feedback on system adoption and implementation could be catastrophic. A collaboration between middle management and organizational leaders will enable the best decisions to be made about the most suitable enterprise

resource system, how the system should be implemented, and what preparation steps need to be completed before its implementation (Cheng et al., 2017).

In contrast to the above research findings, Ruby (2021) discusses how a middle manager cannot be relied on to accurately perceive and interpret the vision and mission of executive leadership and translate that into action steps and processes for the workforce. Ruby explains how the middle management role can be one of manipulation where managers can blame new processes and procedures on middle management. Conversely, middle managers are also able to blame low profits and the inability to meet production goals on the workforce's inability to assimilate to construction or new processes. This research highlights the importance of identifying the truth between executive leadership and the workforce to ensure the messaging and instruction given by middle management is indeed accurate and reliable. Ruby (2021) suggests middle management does not need to be consulted during integration information system selection or implementation because of their skewed viewpoint that any change in process will inevitably mean more work for themselves and the workforce so they may be swayed to provide inaccurate information, statistics, metrics, or false insight into why the system is not needed.

No Consistent Data Cleansing Procedure

Data cleanings refer to the validation process data, metrics, and algorithms are taken through to ensure data such as inventory, sales metrics, and productions are accurately reflected in the system and physical inventory counts and calculations (Rezig et al., 2021). When operating a business with a high volume of transactions, ensuring the transactions flow through systems accurately and ensuring they reflect actual physical calculations and inventories is critical. Such data is used by middle management and organizational leaders to make decisions

on production, procurement, and procedures. Such high-level decisions rely on the ability of numeric calculations to be accurate. The decision to adopt a new enterprise resource planning system is often made in order to synchronize calculations with sales and production. This synchronization and collaboration of information, processes, and predictions enable companies to make an accurate futuristic decision based on algorithmic accurate data that was cleansed before, during, and through the output of the system (Loh et al., 2010).

When such systems are implemented, they are implemented with a specific output goal. That goal is often not realized because inaccurate data is input into the new system, and thus inaccurate data was output through the system. This inaccurate, though many times assumed to be accurate, output corrupts the ability of organizational leaders to make accurate decisions because the algorithmic data was no longer trustworthy. This inability to rely on system outputs due to inaccurate data input into the system demonstrates the importance of ensuring data was clean and accurate before its input into newly adopted and implemented enterprise resource planning systems (Loh et al., 2010).

Du Soleil (2019) explains the need for data cleanings as a means for doing what needs to be done for data to be useful and trustworthy. Data alone is often not useful because it has not been vetted, cleaned, sorted, and aligned with processes to ensure it is metrically sound to be trusted for the use of decision-making. Data cleansing can often involve several steps including deleting unnecessary headers, deleting summary rows, filling in gaps, flattening a report, merging and appending data from multiple sources, pulling data from one source to complete data in another source, splitting data up, identifying and deleting duplicate data records, and converting units of measurement in multiple sources. Du Soleil (2019) discusses the needed use of aformentioned modes and techniques to clean data to ensure it is accurate and reliable.

Performing such actions is imperative before the organizational change or new system adoption. It is critical to the validity of the process to ensure data is accurate and therefore will be trustworthy once the organizational change or new system adoption and implementation have taken place.

Du Soleil (2019) specifically identifies the needed steps within data cleansing that must be performed to ensure data is useful. The ability to clean data and perform required queries may require the recruitment of a specialized team who performs such operations as a primary duty. Acquiring such talent would enable an organization to have a continuous mode of data cleanings available. Once all data has been cleaned in preparation for integrated information system adoption, such personnel would be able to maintain the integrity of all information flowing through the system, as they would be primarily responsible for cleaning all new data entering the system. There would also be a need for data validation at various checkpoints within the system to ensure data inputs remain trustworthy and to ensure all embedded system algorithms are functioning properly.

Du Soleil (2019) highlights many legacy organizations' inability to structure business operations in a manner that not only includes but also requires consistent and continuous data cleansing through various steps of processing. The inability to provide continuous data cleansing will undermine the trustworthiness of data outputs, thus weakening leadership's ability to analyze data outputs and use such outputs to make effective and data-backed decisions. In legacy, there has not been a substantial need for continuous data cleanings; thus, it has not been a routine and or critically viewed function or business practice. However, as the demand and usefulness of integrated information systems like enterprise resource planning systems have heightened in the

last fifteen years, the need for data cleansing and data cleansing professionals becomes an integral component of business processes, practices, and procedures.

Martinez-Luengo et al. (2019) discuss a four-step methodology that enables data to be useful for analysis and interpretation. The accurate analysis and interpretation of data metrics can be used as an accurate estimation of an organization's operational performance. Martinez-Luengo et al. validate the aforementioned business practices concerning a lack of data cleansing by presenting a business and health industry as a whole and their lack of information management as a critical business practice that has not been widely established. Martinez-Luengo et al. (2019) provide a four-step methodological framework for the effective management of data and information and thus illustrate the necessity and applicability of real-time continuous data collection and the sorting and connecting of data to create more complete and accurate datasets, thus providing useful decision-making data. The first step is to synchronize the continuous monitoring of systems in real-time while addressing noise cleansing and any missing data elements. Next, data containing excessive noise should be eliminated, allowing for step three which is the employment of advanced numerical tools to regenerate any missing data. Lastly, in response to the last two steps, calculated fatigues are estimated for the results of the two previous methodologies. These four steps equate to enhancing the conventional structural integrity of the data cleansing assessment techniques, thus presenting a need for continuous cleansing and analysis of data sets.

Koszalinski et al. (2018) present a counterargument for the need for data cleansing before system implementation. Though data cleansing ensures accurate system processing and output reliability was an important component, the primary focus of this work was the need for the enterprise resource planning system to be able to input data, scrub data against algorithmic sets,

and process compilations to validate or cleanse data to make it useful and reliable within the system. This argument is favorable to organizations looking to avoid investing large amounts of time, effort, or resources into data cleansing. Koszalinski et al. (2018) illuminate the idea that missing data is extremely common and that multiple systems generate methods and techniques that can be employed to manage missing data elements, yet each method will have an impact on the predictive modeling moving forward. This source argues against the mentioned research findings that the utilization of large amounts of aggregated data was cleansed within well-crafted and duly compiled information systems, thus eliminating the strongly implied need for data cleaning as a primary business practice that should be widely accepted and put into the practice before the adoption and implementation of the enterprise resource planning system or any significant organizational change.

Only Desk to Desk Training

Contributing to negative work environment is the lack of formal training on existing or new systems, resulting in employees who are ill-prepared and unequipped to perform their jobs effectively. Formal training is a structured model of instruction used to teach and transfer skills from an expert or proficient person in a subject matter or with a system to a person who does not have expert knowledge or system familiarity (Manuti et al., 2015) In an organization, formalized training is important because it ensures all employees are given full comprehensive information and training experiences on a topic and provides hands-on experience with how to operate a system. In this way, organizations can certify a person has comprehensive knowledge and at least a partial understanding of the topic or system.

In the absence of formalized training, coworkers often share their knowledge or provided one another with tutorials on how to complete processes and actions within a system (Manuti et

al., 2015). The problem with desk-to-desk teaching is that it is dependent upon co-workers being fond of one another and that co-workers can often teach inaccurate or incomplete processes, thus creating entire departments or sections that perform processes or run reports inaccurately. This mode of training is voluntary; it is not sustainable; and lastly, it does not ensure the entire workforce has a comprehensive understanding or system exposure linked to an inclusive block of instruction targeting specific learning and system navigation objectives.

Koh et al. (2009) discuss the limited formal training available for ERP systems within a business. The lack of formalized training and dependency on desk-to-desk training weakens employees' system knowledge. The lack of investment in formalized training for ERP systems undermines the initial investment made by the company during the purchase and implementation of the system if training was not invested in as well to ensure employees are fully knowledgeable of all system functions and have received functional training on system capabilities, reports, predictions, and decision matrices within an employee's specific department. Koh et al. (2009) describe business needs for a competitive advantage through the implementation of integrated information systems. ERP systems provide a package of information software, providing functional synchronization for production, sales, human resources, and finance through department integration. As system advantages were realized, there was a massive explosion in businesses converting operations to include and be designed around the use of ERP systems. Though vast system functionalities are present, the amount of knowledge needed to operate such systems is unknown before implementation; thus, an immediate increase in the need for subject matter experts to implement and provide formalized training for ERP systems emerged.

Critical arguments mentioned in Koh et al. (2009) regarding the need for a standardized formal mode of training that only includes desk-to-desk tutoring as a final component for newly

discovered shortcuts or report interpretation was critical to the success of each employee's interaction with the system. Previous research about desk-to-desk training and the negative effects of this mode being the only source of training available maintains that formalized training on newly implemented systems is a vital component of successful implementation and operation of ERP systems. If companies choose desk-to-desk training as their primary mode of ERP system training, they must understand the functional risk the company is assuming, and they must assess whether the subject matter operations of the system will allow for expert functionality without the adoption of a formalized training mode of instruction (Koh et al., 2009). Businesses must also consider if a compressed formal training mode of instruction will be sufficient to capture and teach features, ERP system functionality in totality, and expected output results comprehensively and holistically.

Hertzum (2021) presents a fresh perspective through the discussion of the necessary well-trained implementation team to initiate organizational implementation before system implementation to ensure the successful and effective implementation of an integrated information ERP system. Employing a diverse implementation team with expert knowledge of human resources, training, and system functionality, along with a chief change agent will help enhance the organizational ability to prepare and move smoothly through system implementation. An effective implementation team will be able to access the needs of the organization from a local, national, and operating environment perspective. This holistic and strategic method will enable the organization to be properly prepared for organizational change, personnel training, procedural streamlining, and system implementation using a top-down implementation, agility, and collaborative buy-in strategic approach.

Concepts

By Failing to Prepare, You Lack the Preparation Needed for Effective System Implementation

Boge et al. (2018) mention this statement as a warning, indicative of the need for preparation. The concept highlights that when there is no preparation the obvious and most likely result will be a failure. This concept was the foundation of the problem concerning enterprise resource systems. This concept was directly applicable to this specific study. This concept explains that by failing to prepare, components with business such as data, processes, personnel training, and organizational culture shifts have not been prepped to analyze the potential changes each component will undergo as a result of the organizational change. This concept highlights the importance of preparing an organization from the inside out so that all systems, data, processes, people, customers, and partners will be aware of the coming changes, how each component will be affected, and mitigating factors and tools that can be used or implement to subdue the change, thus helping to ensure the change yields positive results for the organization. This concept indicates its own reverse: that by preparing, organizations possess the means for a positive outcome. Understanding this common concept was paramount to understanding the core of the problem being discussed; when there is a lack of preparedness within organizations, organizations often experience failure during the adoption and implementation of enterprise resource systems.

Hertzum (2021) describes fully functional information systems as the operational core of an organization. This author explains how many organizations have a difficult time realizing or actualizing the benefits of integrated information ERP systems because of a lack of organizational preparation before implementation. The implementation of an EPR system is not

merely system implementation, but should more specifically be viewed as organizational implementation since it will affect every aspect of the organization from personnel to processes, procedures, protocol, and profits. Hertzum describes how EPR systems are best optimized through the organizational preparation that not only occurs before but also during and after system implementation; thus, system implementation must be thoroughly planned for with potential consequences and unlikely outcomes and contingency considered. Hertzum (2021) breaks down organizational preparedness into three distinct phases. The first phase is the pre-implementation phase, which includes specification of effects pursued with the system, adapting the system and the organization, and obtaining buy-in for the planned change. Phase two is the go-live phase wherein the system is now operational and associated organizational changes take effect. The third functionality was previously designed. This phase is the longest and focuses on improvising and continual improvements. The last phase is unique in that it allows anticipated effects to be realized as new opportunities for functionality emerge. Hertzum highlights the importance of preparation for effective and successful system implementation. Choosing to not prepare is choosing to fail; not approaching system implementation using the three phases model presented can often cause an excellent integrated information system to fail based on the lack of organizational preparedness.

Prepared Organizations Input Accurate Data into Implemented Systems, Thus Systems Output Accurate Data

Rocco (2016) explains this concept, indicative of the idea that if one places good inputs into a system or process the outputs will be good; however, if bad or inaccurate inputs, data, or the processing are placed into a system bad and inaccurate data outputs will be the system result. This concept was directly applicable to this specific study as it emphasizes the need for

companies to prepare for system change by ensuring all data going into a new system is accurate so the system can work as designed to produce accurate data and data point conclusions for decision making. This statement replays the idea that there is nothing wrong with the system or process; rather, the inputs to the processor system have not been prepared, cleaned, or verified for accuracy; thus, even though they are processed through an accurate system, the output would most likely still be inaccurate or bad. This concept echoes the core of the problem that preparedness will affect the ability of the system to perform correctly once it has been adopted and implemented. If personnel are not trained, processes streamlined, and data cleaned before the adoption and implementation of an enterprise resource system, then all outputs will be corrupt and inaccurate.

Tan et al. (2019) discuss the specialized models used for inputs and outputs of sustainability systems. Within reliable input structures, a mathematical algorithm acts as a functional foundation for analysis and system processing. Accurate input/output models can be used on diverse integrated information systems to process data, incorporate and synchronize processes, and funnel information through processes to produce decision-making outputs. Model variants reliant on accurate information risk undermining system accountability due to the risk of inputting inaccurate data thought to be clean and reflect organizational data metrics and performance. Tan et al. (2019) explain how data relevant to natural resources fuse with data metrics from stove pipe systems to collaboratively feed information inputs into ERP systems. Tan et al. concur with the validity of the need for accurate inputs to procure reliable and accurately processed outputs.

Ghorbel et al. (2020) discuss the critical implications and effects of false data inputs into systems, processes, or applications. Handling data imperfections is a critical issue with many

organizational systems and processes. There are many causes of false data inputs, including typology manually entering the incorrect data to include uncertainty and uselessness of the information as well as redundancy. Aside from inaccurate data being purposefully inputted, false data entry can be a result of uncertainty, confusion, typing error, wrong knowledge, or inconsistency. When configuring and analyzing false data, one must use estimation or approximation to configure what the false data should have been. This method is uncertain and variable as different interpreters configure data differently, thus drawing potentially very diverse conclusions. The probability of such assumptions being accurate is a fractional measure that is not reliable. Manual and system algorithms within integration information systems work together to cleanse potentially false data points to extract useful knowledge from data input that otherwise would be discarded for lack of accuracy or trustworthiness.

Ghlorbel et al. (2020) explain that within systems without sophisticated algorithmic frameworks, or being processed manually, false data inputs largely skew metric analysis and prevent the ability to make data-based decisions due to the lack of validity or trustworthiness of the data. Decisions made based on data outputs derived from inaccurate or un-vetted inputs have a higher propensity to be inaccurate, incomplete, or questionable. It can be derived that inaccurate or false data inputs will produce inaccurate or false data outputs; as an integrated information system processes and configures inputs, it is not suited for the transfiguration of inputs to suit system and organizational objectives. Ghlorbel at al. support the concept of accurate data in a system producing accurate data outputs; thus, configuring false data inputs into a system will produce false data outputs from the system.

Organizational Preparation Helps Ensure Durability and Longevity, Resulting in Decreased Supply Chain Disruptions and Profitability Increases

Manjunath and Arjun (2015) explain how this concept addresses how much easier it is to prepare for organizational adoption and implementation than to not be prepared and spend double the time and resources trying to fix problems and issues that could have easily been resolved in the preparation phase. This concept was directly applicable to this specific study as it demonstrates how organizations should take the time to clean data, streamline processes, and train personnel on system changes before their implementation so all components will work accurately and seamlessly after system implementation, thus creating system, process, and organizational durability and longevity. This concept highlights that when organizations, their people, processes, and data are prepared for changing, their partners, customers, and supply chains will not be negatively affected by disruptions, and thus there will not be a significant drop or decline in their profitability. This concept highlights the idea that fixing minute issues or problems when they initially arise is more advantageous and much easier than fixing issues once they have enlarged, affecting a larger portion of the organization or process and making the problem much more complicated and costly to resolve.

Jensen et al. (2021) discuss barriers to longevity within organizational operations and product development. To achieve business and product longevity, an organization must be aware of current, potential, and future barriers that would impede business longevity. When crafting strategies to overcome barriers, organizations must first pinpoint barriers and identify why and what threat they currently cause to the organization, its operations, processes, procedures, practices, or supply chains. Identifying barriers can be difficult because many of the most vicious barriers for companies in their past have been unknown; thus, they could not plan for them or

strategize and navigate around them. As a concept, leaders must understand that prepared organizations are often able to obtain longevity because they prepare and plan for barriers that would distract or derail organizational objectives. There are a few potential barriers to longevity that organizations must be aware of and prepare for. Jensen et al. (2021) highlight such barriers:

- high cost of changing the business model;
- customer rejection of business model change;
- high price points of long-lasting products;
- vulnerability regarding short, fixed leasing periods;
- time-consuming changes in customer perceptions of products and brands;
- inability to follow fast-moving trends;
- technological innovation making long-lasting products obsolete;
- changes in societal behavior making long-lasting products obsolete;
- lack of focus on longevity in innovation;
- short lifecycle, promoted by retailers, affecting user behavior;
- lack of attachment to products;
- customers being partly unaware of material quality;
- evaluating longevity in a purchase situation; and
- misperception of modularity in advanced products.

These potential barriers require organizations to prepare before the organizational change or system adoption to ensure the longevity of the organization, product, service, or supply chain. Jensen et al. concur with the concept that organizations who prepare for system adoption can strategically navigate around identified barriers as pinpointed above to ensure longevity within

their operations, thus preventing supply chain disruptions and profit margin decreases linked to organizational longevity.

Petrich (2019) discusses longevity and durability within an organization from the perspective of a terrorist. This provides a counter perceptive to thoughts on longevity and durability concerning business operations, products, and supply chains, yet the core concept is congruent. Petrich (2019) discusses the intentional and strategic way terrorist organizations strengthen the durability and longevity of their organizational operations through deliberate preparation before organizational or system change. This preparation ensures their supply chain funnel remains intact, their operations are focused on their primary business objective, and their profit margin never decreases. In the same manner, organizations that operate legally seek to obtain and fulfill the very same objective. Businesses and organizations seek to thrive during times of transition and change. Petrich (2019) provides a controversial example of how intentional and strategic preparedness can ensure the durability and longevity of organizations and operations. Preparing for potential supply chain disruptions equips organizations to build and uphold durability and longevity by diversifying operations. Diversifying organizational operations before large changes and system adoption allows for various pillars within the organization to serve as a foundation to ensure implications brought by organizational change do not cause single-point failures within the organization or its operation. This preparation also allows time for internal processes and personnel to adjust to pending changes prior to their full implementation. This incubation period is necessary to ensure durability and longevity nested in organizational preparedness before the organizational change or system adoption.

Theories

Transformational Leadership Theory

Raj and Srivastava (2016) describe the theory of transformational leadership as a theory grounded in the idea that leaders work with a team or organization to look beyond their current desires to come to a collaborative expected end. In this pursuit, leaders analyze the need for change and then visualize and actualize that needed change, accomplished through the collaborative efforts of the team while using the four types of transformational leadership to galvanize, inspire, motivate, and effect change (Raj & Srivastava, 2016). Transformational leadership works as a theory within the conceptual framework of this project because it describes the leadership style necessary for leaders to adopt and utilize if a successful system integration is desired. This leadership style is necessary because this style focuses on working as a team to accomplish a goal. Transformational leadership is needed when organizations prepare for system and process changes because this leadership style looks past legacy norms and situational comfortability to analyze where necessary changes are needed and works to implement them. This analysis looks to prevent work stoppages, bottlenecks, and any foreseen detour that would impede successful system adoption (Raj & Srivastava, 2016).

The theory of transformational leadership is an undercurrent to the problem of organizations lacking preparedness with adopting and implementing enterprise resource systems. Transformational leadership is required to identify a problem, craft a solution set, and galvanize the entire organization towards strategic change. This galvanization of personnel should be aimed at proactively motivating the workforce to mentally prepare themselves and their departments through training and a thorough awareness of existing processes. Awareness of existing processes enables staff to more easily pinpoint applicable areas for improvement or

streamlining. Such preparation uses lean six sigma methodologies along with data cleansing to ensure clean data is used during system adoption and implementation, thus curating accurate and dependable outputs. The transformational leadership style possesses the abilities needed to take an organization from the present state to the end state; system adoption is a critical time in which transformational leadership is required.

Kwan (2020) discusses the origins of transformational leadership in the 1990s. Its core was found in internal motivators that urge and lead people to change or transform for the better. Transformational leadership is sensitive in its mechanisms and encompasses an enduring approach that is not primarily focused on linear principles such as policies and procedures, but instead focuses on ideas, concepts, internal motivation, and intrinsic character. Transformational leadership allows for individualized considerations when leading people and organizations, considering personality, differences in behaviors, and past upbringing. This leadership style seeks to develop and inspire from an internal source that then enables people and organizations to reach outlined objectives with a collaborative and inclusive approach.

Kwan (2020) discusses the need for transformational leadership during times of change or transformation. When an organization is seeking to fundamentally change how it conducts business at its foundation or looking to implement a new system that would systematically change how all processes currently flow, a transformational leader has to address the organization's first-, second-, and third-order concerns as related to large scale change. Core components of transformational leadership enable leaders to corral the internal motivation and unity within their employees to be open and accepting of new processes and procedures to better align organization functions with future objectives and ever-changing operating environments.

Dialogical Self Theory

Dialogical self theory focuses on seeing oneself as connected to society and provides the ability to imagine one's self as a participant in a later picture (Gülerce, 2014). This theory was critical to the conceptual framework of this study because within organizational change and preparation for system and process changes each employee must see themselves concerning the greater whole or the bigger picture. The ability to internally understand how different participants play into a larger scenario will help organization employees, leadership, customers, and partners see how organizational preparedness for system implementation affects not only themselves but each participant involved. Embodying this theory enables all to see outside themselves, making each party less self-focused and more focused on working with one another to achieve the larger goal (Grimmett, 2016).

Meijers and Hermans (2018) present the idea that the dialogical self-theory is focused on bridging the divide between oneself and society. This theory refuses the notion of combing the internal self with the external society through forms of communication, instead looking to study the individual as a society itself and to then study society as a composition of many selves that is populated, stimulated, and renewed by the selves of its participants. Meijers and Hermans highlight the abandonment of a dual notion of self and society and instead focuse on an individual's inability to escape society. These authors concur with the notion of dialogical self-theory as a critical theory to be considered when leading organizations and people, that people can imagine and see different positions of participants with whom they have internal dialogue as a connection to both one and external dialogue with society. This theory is important to the research framework as it builds relationships and perspectives to show individuals view themselves and the various positions of participation they communicate with through internal

thought and dialogue that is often expressed externally to society. An understanding of this theory will contribute to how leaders understand employees and how employees understand the miniature ecosystem in which they operate.

Maslow's Hierarchy of Needs

Maslow's hierarchy of needs describes humans in a hierarchical format that conveys emotional needs such as self-esteem or self-actualization can never be fulfilled completely until a human's most basic physiological needs such as food, clothing, and shelter are met (Li et al., 2019). This model describes need fulfillment in a pyramid, with physiological needs being the foundation, then the need for safety, love and belonging, esteem, and lastly, the need for self-actualization at the top of the pyramid (Upadhyaya, 2014).

Ghatak and Singh (2019) outline Maslow's hierarchy of needs as a strong urge or continuous desire for achievement of various sorts after the individual's lower-level needs are satisfied. This theory describes needs in a hierarchical platform where one's most basic needs are foundational and the needs for accomplishment and self-actualization occur only after foundational and relational needs have been met. This hierarchy of needs is the structure from which one's needs can be discovered. When working in an organization or within a group it is critical to understand what level each person is on; this understanding can help determine what motivating factors are best suited for each individual. This theory describes the different levels of needs fulfillment.

Ghatak and Singh (2019) describe Maslow's classification of needs as a five-tiered pyramid structure known as the hierarchy of needs with the higher level being considered additional fulfillment while lower-level needs are seen as an obligation to reach and ascertain higher-level needs. The fundamental rule within this theory is that no one level can be skipped.

Per the theory, one cannot pursue basic foundational needs of shelter and then move to self-actualization needs of higher achievement. The model requires all or almost all needs of one level to be met before one can systematically advance to the next level. Thus, one would need to have physiological needs such as the needs for food, clothing, and shelter met before striving to achieve safety needs such as security, safety, and stability. Safety needs must then be met to obtain the need to love, belong, be recognized, affirmed, and give or receive affection. Lastly, love and belonging needs must be met to obtain the need for self-actualization for personal development or academic achievement. Understanding this theory provides insight into what a person cares about based on what hierarchical need they are on. The model provides an introspective into a person's focus, their current motivators, and their areas of concern.

Ghatak and Singh (2019) further describe the detailed needs at each level within the hierarchy. In an organized business setting, it can be assumed that most of the employees have the first two need levels met. This is seen as an accurate assumption because these individuals are employed with an organization that pays them a salary to provide for their basic needs of food, clothing, and shelter. It is also assumed that most employees within organizations are safe and have the second need level of safety and security met. This second need-level fulfillment was a large assumption because, though employees are employed with salaries and have clothing and food, they could be in harm in other areas. But in most cases, it is safe to assume this need is fulfilled. Within a workplace understanding, Maslow's hierarchy of needs is so important because for many employees the workplace serves as a source of fulfillment for the last two need levels. Within a workplace setting, employees are often seen to belong, be accepted, and recognized. This need may be an expectation that was already present in their private life; thus, they expect it to be duplicated in their professional life. On the other hand, perhaps this was a

need that was absent in their personal life, and thus employees seek to fulfill this need in professional settings. No matter the motivation, the need to belong and feel a part of the team is often displayed and fulfilled within the workplace. Understanding and knowing this as an employer can be used as a competitive advantage to motivate and corral employees towards an organizational goal. However, Ghatak and Singh (2019) also discuss employees who have many of their hierarchal needs met outside of the organization; employees then have less of a need for those needs to be met within the organization. This need for fulfillment within one's private life can lead to employees disassociating with others at work and not prioritizing reconciliation because the need to belong is fulfilled within their family or friend associations and not within the workplace. In this way, Maslow's hierarchy of needs can work against workplace unity.

Still, Ghatak and Singh (2019) explain the highest need for self-actualization is often fulfilled within the workplace as individuals look toward satisfaction of their highest needs. Within an organization, many employees seek to accomplish their professional goals and obtain degrees, certifications, and promotions. This stage of self-development and becoming one's best self is a culmination of where happiness and self-fulfillment intersect. As organizational leaders, understanding that the environment in which the need to belong and self-actualize exists within the workplace provides an opportunity for insight into the motivation of employees. When leaders can pinpoint employee motivators, it provides a source from which they can influence employee behavior and work habits to encourage work for the greater good of the organization's mission, objectives, and goals.

This theory was important to the conceptual framework of this study because it describes organizational employees during times of transition. An employee's ability to prepare their section or department for organizational system and process change often hinges upon the basic

need for safety or job security. Once employees are reassured that their jobs are safe during system adoption, it builds upon the fourth need of esteem which enables employees to confidently prepare themselves, their data, their internal department processes, and how they do business for a system change knowing they are secure financially within the organization and do not have to fear job loss. For organizational leaders, establishing this basic need for safety is imperative to get an employee to buy in and assist in organizational preparedness before system adoption and implementation. Employee buy-in and assistance will help ensure successful system implementation because each department will clean their data, streamline their processes, and prepare themselves for training on the new system to avoid supply chain disruptions which will inevitably prevent decreases in profitability.

Constructs & Variables

Leadership Style

Leadership style was an independent variable in this study and was an input to the core problem. Peng et al. (2021) state that leadership style helps define how the organization will flow, grow, proceed and change. Leadership was an important aspect of the problem because leadership style often determines an organization's ability to be successful through system adoption and implementation. An effective leadership style can help ensure all components are properly analyzed and prepped for system change, while an ineffective leadership style could go into a system change recklessly hoping for the best. Van Assen (2018) explores the impact of higher management's leadership styles on lean management. The objective of enterprise resource planning systems is to create lean, efficient, and impactful operations and meet and or exceed organizational goals and objectives. Lean management is directly linked with ERP system lean operations. Van Assen (2018) defines a lean leadership style as one associated with the

elimination of waste, thus centered on value-added steps, processes, procedures, and functionality. Lean leadership styles focus on the reduction of dysfunctional variability within day-to-day operations, thus maximizing value-added operations, instruments, and systems. This leadership style heavily affects an organization's ability to successfully operate ERP systems within their business procedures. If leadership style and business functionalities are blended and cohesively aligned to become synchronized, integrated, and lean, it yields a unit strategy for business operations and personnel associations. If the two are not in synch, having a lean operation style through the adoption and implementation of ERP systems and having leaders who are not focused on changing their practices and behaviors to align with lean operations could cause catastrophic problems within the organization. To avoid such problems, lean operations require leadership that is focused and flexible, thus motivating and intriguing a workforce to be dedicated and engaged and working to transform previous workplace habits and mentalities to focus on how to combine reduction and effectiveness.

Van Assen (2018) briefly discusses servant and empowering leadership. Servant leadership is centered on empowering and developing people because of the leader's genuine concern for people. This leadership style thrives in situations and organizations where a leader's example to participate and help them motivates followers to do the same. Servant leadership is founded on the principle that the leader must meet the needs of others by understanding their abilities, desires, and goals, as well as the leader's own potential to assist them. Van Assen (2018) then explains that empowerment leadership is a form of leadership that focuses on influencing others through developing and empowering followers' capabilities. This style focuses on encouraging participative decision-making, sharing information, and the coaching of mentoring followers. Both leadership styles are discussed because they are excellent alternatives

for leaders looking to lead organizations. However, for organizations looking for leaders who will be able to be strategic, decisive, and impactful, mirroring the ability and mission of integrated information ERP system, lean leadership is the preferred style of organizational leaders.

Productivity

Productivity was a dependent variable that was an output of the processor system. Chakrabarti and Chatterjea (2018) state that productivity serves as a sign or indication of whether the leadership style is effective or ineffective and a strong indication as to whether the adoption and implementation of the resource system was successful. Productivity is an engagement that demonstrates and highlights whether the leadership style is able to lead and inspire the organization to adequately prepare for the adoption and implementation of enterprise resource systems to sustain and increase productivity while minimizing supply chain disruptions and sustaining or increasing the profit margin.

Goss and Jones (2021) discuss automation as a primary mode to increase productivity within business operations. This source highlights the ability of an automation system to provide a comprehensive yet concise approach to data collection, data processes, and data distribution. Within organizations, often even mundane tasks decrease productivity primarily due to their perceived minimal importance or redundancy. Automation can take even the most mundane tasks and build easy and accessible solutions to increase the productivity and completion time associated with such mundane processes in various aspects of business operations. Increasing productivity of routine tasks through automation enables organization leadership and employees to focus their time and attention on core functions of business operation that require the generation of fresh ideas and innovative thought. Goss and Jones (2021) provide a workable

solution for businesses looking to increase productivity within their organization through the adoption and implementation of automation systems and thus reduce the workforce and increasing the organization's profits. Gross and Jones (2021) concur with the need for an automation system to increase productivity within an organization. A sophisticated automation system would be classified as an integrated information system such as an enterprise resource planning system.

Banya (2017) discusses productivity within the workplace as a reflection of employee satisfaction and, more importantly, employee recognition. This author highlights how employee productivity can be measured and the direct and indirect links that exist between employee productivity and simple employee recognition, as well as how to improve productivity through employee recognition. Within Banya's (2017) research, with a sample size of 400, including non-managerial employees as well as middle and upper management, it can be seen that employee productivity rose 30% when employees were recognized through simple comments such as thank yous. It can also be seen that the quality of work produced rose when employees felt their contributions played a pivotal role in the organization's success. Employee recognition not only increased productivity but also increased employee buy-in to organizational goals, with this perception being reflected through the compilation of surveys. Another small sector of the study showed that giving employees choices concerning recognition such as small gifts, small rewards, or certificates increased productivity when verbal recognition was not sufficient. This response was also gathered from employee surveys of non-managerial employees and middle and upper management. Giving employees autonomy of choice helped employees to feel their opinions and contributions mattered. Through this research, a positive correlation was

established, thus upholding the hypothesis that consists of the perceived genuine forms of employee recognition such as saying thank you worked to increase employee productivity.

Schlicht (2018) discusses increasing productivity through leadership engagement. This study illuminates employee engagement as a primary way to increase productivity within business operations. When using employee engagement to increase productivity, organizations must identify and understand what factors are most important to employees. Employees' primary concerns include training and development, immediate management, performance and appraisal, communication, equal opportunity, fair treatment, pay and benefits, health and safety, cooperation, family-friendly, organization, and job satisfaction. Knowing and using the aforementioned elements to address terms of improving employee engagement is a competitive advantage for the organization. When organizations prioritize the concerns of employees and address their concerns in a valid and lasting manner, it builds a rapport between the organization and the employee.

There are 10 critical leadership components leading to employee engagement and thus working to increase productivity. The 10 components are building trust, communicating effectively, building esteem, building an enjoyable and fulfilling work environment, developing talent and coaching team members, demonstrating flexibility in understanding individual needs, engaging necessary knowledge, reinforcing high performance, monitoring engagement issues, and lastly, identifying appropriate members for the team. Leaders in an organization looking to increase productivity can use the identified components to better connect with employees, access their current positions and futuristic needs, and create reward systems for high-performing employees. Crafting strategic employee engagement programs within organizations is the most

efficient way to increase productivity based on the concept of organizational citizenship behavior.

Employee Satisfaction

Furst and Cable (2008) state that employee satisfaction is also a dependent variable that functions as an output of the system adoption and serves as a testimonial of the effectiveness of the chosen leadership style. During organizational system adoption, leadership must consider and incorporate employee desires, needs, and longevity components to ensure during the time of shift and change that processes, procedures, and systems are stable. It is critical that all employees feel secure, valued, and able to tackle and conquer a new enterprise resource system and a new operating environment. Employee satisfaction increases the value of organizational corporate culture and minimizes workplace issues, often creating a pleasant place for employees to work and thrive.

Rothwell et al. (2020) discuss employee satisfaction through the lens of return on investment through training programs. Training programs are critical for the development of today's workforce through skill enhancement and knowledge expansion which aid in retention and boost strategic organizational stability. Structured training provides reassurance for employees and organizational leadership. Employees feel ready and equipped to take on difficult and complex tasks. Employees have the system knowledge to perform queries and generate reports. Training universally improves employee satisfaction within workplace settings because it provides the confidence and solution sets employees need in order to fulfill their work obligations. Being accountable for the training one has received often produces increased performance outcomes that boost employee satisfaction. This employee satisfaction is directly tied to a return on investment for the organization.

A critical component of organizational performance is employee satisfaction. Rothwell et al. (2020) explain that apart from delivering better results, employee satisfaction provides an increased return on investment for the organization that can now differentiate itself from competitors based on the knowledge and capability base of its employees. When employees can see how their daily efforts align with moving the organization's mission and vision forward, it provides a clear path for employee participation and integration into the organization's overarching efforts. Another critical component of employee satisfaction is curating a productive and inclusive environment with educational and development events and elements to ensure skills, abilities, and competencies are synched and being further developed daily.

Gross et al. (2021) addresses employee satisfaction as a benefit to the organization because satisfied employees are often reputation advocates for the company, their products, and the organization as an excellent source of employment. Gross et al. (2021) conducted a single case study within a medical facility through the use of satisfied employees to recommend the facility to other professionals and potential patients. The study found satisfied employees built selection pools and patient pools at a far greater rate than other marketing avenues. Employee satisfaction proved to be a critical component in the process of building a positive reputation.

Employee satisfaction is also a factor to be considered when building relationships and trust within the community and the organization's operating environment. Employees are most likely a part of the community in which the organization operates. Satisfied employees see themselves as citizens of the organization; thus, they have a vested interest in seeing the organization thrive within its operating environment and the community. These are known as pro-social behaviors of employees and are exhibited as organizational citizenship behavior. Citizens of a community want to see the community thrive and thus go outside of their normal

scope to ensure the community succeeds. This is considered pro-social behavior that greatly benefits the organization as it operates as an eco-system. This pro-social behavior concurs with the norm of reciprocity. When employees feel satisfied with their work environment, work treatment, and advancement potential, they want to freely give back to the organization; thus employee satisfaction evokes an environment of exchange dually benefiting the employee and the organization.

Satisfied employees work as daily advocates in the community, speaking of their positive experience, quality treatment, and advancement opportunities with an organization. This makes family, friends, and associates within the community want to patronize or even work within the organization. When trusted patrons within a community speak highly of an organization, it builds goodwill for others to patronize the organization. Within marking, it often requires one who is known and trusted to most efficiently advocate or advertise for an organization. For this reason, Gross et al. (2021) stress the importance of satisfied employees and their effects on organizational reputation and the use of satisfied employees as change agents and change-makers within the organization.

Related Studies

Rajagopal (2001) discusses enterprise resource planning (ERP) systems as the primary tool for business and organizational synchronization. Rajagopal's research was based on a six-study case analysis where six manufacturing firms were analyzed to discover their reason for system implementation, the preparation required before system implementation, and to see if a six-stage model could be created for how to properly implement ERP systems. The research concluded that a six-stage model can be used on a pilot basis as a how-to guide for ERP implementation. The stages include initiation, adoption, acceptance, routinization, and infusion

(Rajagopal, 2021). Each stage has a different core focus and addresses a different aspect of system adoption, implementation, standardization, and ultimately system success. The first phase in the six-stage model is initiation which includes the identification of the need for an ERP system. Within need identification, the organization identifies which business aspects will be included within the ERP system functions as well as the scope of capacity the organization is looking for the ERP system to perform. This phase also includes researching ERP system types to identify which ERP system would be best suited for the organizational functions, goals, and objectives of a company. The next phase is adoption, which includes ERP system selection after analysis has been done to ensure the ERP system selected is specifically designed for and adequately matches the size, scope, and business type for which the ERP system can sufficiently perform functions. The next phase is acceptance, wherein the company accepts the selected ERP system and begins to internally plan for system adoption and implementation. This preparation includes analyzing the changes that personnel, processes, and procedures will endure as the system is adopted and implemented within the organization. The next phase is routinization, wherein the implementation team and consultant discover how system operations can be routinized to fit into the daily scheme and follow business operations. The last phase is infusion. This is the executive phase where the system is officially implemented and put to work within the business. This is often where the organization can see if the preparation and analysis performed have enabled the organization to select, adapt, and implement an ERP system that holistically improves business operations.

This research study involved qualitative and quantitative methods along with triangulation within the research results, concluding the findings from the six-company assessment as valid and reliable (Rajagopal, 2021). This study was heavily related to this project

as it also looks to see what processes are needed before ERP system implementation into a business's processes to ensure system implementation is successful based on pre-defined company metrics. This study highlights and identifies the importance of selecting pre-defined company metrics as a tool, method, or mode of measurement to assess the success of system implementation. Without defined metrics, a company cannot decisively evaluate if its ability to implement an ERP system and the system's functionality meet the organization's goals and objectives. Success for each organization varies in metric and measurement based on the goals, initiatives, and vision of a company. The pre-planning phase is critical to ensure an organization's vision holds steady throughout the organizational change. This study was closely related to the prescribed research because both highlight the need for pre-work and preparation of a business, its people, procedures, and its internal processes before ERP system implementation. This commonality added to the validity of the research currently being crafted since both studies are similar in nature.

Chung et al. (2008) discuss the many benefits of the ERP system; however, the authors also emphasize the risks, cautions, and uncertainties that accompany ERP system adoption. This study highlights success factors related to the implementation of enterprise resource planning systems. This study identifies critical factors that contribute to or impede a company's ability to successfully implement an ERP system, thus highlighting which factors must be considered before system implementation. Such factors include system compatibility, system reliability, and reporting capability. Another large factor that impedes system implementation success is the leadership style that accompanies organizational change. In investigating the risks, cautions, and uncertainties of ERP system adoption, mitigation strategies are sourced to provide suitable solution sets to help ensure organizational ERP system adoption success.

This study produced an analysis model that displays the relationship of each factor to one another and demonstrates how each factor contributes to the success of the system, including internal support, function, and consultant support (Chung et al., 2008). The study culminated with a recommendation for successful ERP system implementation based on the results of the research analysis. This study is heavily related to the current research as it examines the factors to be considered and analyzed before, during, and after system implementation. The study highlights which factor most heavily contributes to the success of organizational preparation for system adoption and helps determine how successful the system implementation will be based on the company's ability to accurately and effectively analyze, plan for, and mitigate any issue that arises with the critical factors. The study works as a guide for companies to know which factors are most significant and to help circumvent the consequences of such factors not being adjusted and mitigated before, during, and after system implementation and the potential consequence that may result. Planning to avoid risks, and inputting methods and modes into daily operations to help mitigate potential hazards and downfalls, is one of the most proactive techniques a company can use when planning for success. This study parallels the current research's efforts to avoid risks and hazards of system adoption and implementation by preparing for the implementation through analysis of mitigation factors.

Kumar and Gupta (2012) highlight attributes of ERP systems that cause their operational failure. This study focuses on factors of enterprise resource planning (ERP) system implementation that could potentially cause or attribute to ERP system failure. This research was based on a case study within higher education. The research analyzes the value of each attribute and how it contributes to potential ERP system failure. Major system failures discovered through the research include changes, coordination issues, budget issues, customization issues, lack of

experience, unfriendly user interface, poor ERP selection, and the absence of a consultant (Kumar & Gupta, 2012). Identifying potential attributes of ERP system operational failures provides a pathway for organizations to use these attributes to craft a plan to mitigate identified risk and problematic precautions to avoid system failures. The findings were vital to the current research as they alert companies looking to adopt and implement an ERP system of the potential pitfalls that lead to system failure; thus, upon initial implementation, they can prepare for their organization, staff, and operation and put in place mitigation steps and tools to ensure said pitfalls or contributing factors do not occur.

In analyzing potential operational failures, each component must be investigated to further understand its impact in order to better identify the gravity of its potential failure, thus allowing companies to plan risk mitigation more adequately for each system failure component. The first potential failure component is change. Anytime an organization plans to or subsequentially changes, it is imperative that the change be identified as one that primarily impacts personnel, processes, procedures, or all three, as well as to what degree they are impacted. Understanding what component of a business will be most impacted during a climate of change can help an organization properly address how to handle change in a manner that least negatively affects the organization and the source of primary infliction. Budget issues and implications are one of the most critical components to address before, during, and after system implementation to ensure budget restrictions and requirements do not negatively impact system adoption. Without proper budgetary planning, there may not be sufficient resources needed to properly plan for system implementation and execution of processes, personnel,and procedures. Often organizations require ERP system customization so SAP functions can adequately address and perform a company's needed and required system functions in a manner most preferred by

the organization to optimize performance in a manner that is specific to the organization, its operating environment, and its customer niche. Such required system customization can be the source of potential system failure; due to the unique way the system is crafted and executed to perform specialty functions, it may be complex to understand and operate the system, even with the help of ERP system professionals, due to the customizations causing a potential lapse in the ability for system professionals and organizations employees to execute system functions.

Lack of system knowledge and experience is the next potential system failure and can serve as large negative hurdle organizations must work to overcome to fulfill successful organizational system implementation. Training and knowledge of system operations and functions are necessary to avoid a lapse in operational duties and performance. With customization and the lack of system knowledge and experience, there is also an unfriendly user interface. This component further complicates and hinders the ability of organizational personnel to understand and know how to operate the system to perform organizational tasks. Within system adoption and implementation, organizations must understand that all ERP systems are not crafted equally; thus, every ERP system has various functionalities and costs and is best suited for specific levels, sizes, and complexities of business. Choosing an ERP system that is not best suited for an organization's size, business type, and performance expectation can cause critical system failures. These failures occur when the ERP system selected does not possess the specification needed to execute its primary business operations at a superior level. To mitigate this potential system failure, it is imperative to identify the specifications of any organization and analyze various ERP systems to align size, functions, and business complexity with an ERP system specifically designed for similar business sizes, types, functionalities, and expected organizational performances.

Lastly, the absence of an implementation team or a consultant can be a grave source of system implementation failure as there is no subject matter expert to lead and guide the organization in system implementation. This lack of a consultant also causes a barrier in training when organizational personnel need training on the new system and how its functions meet and exceed performance objectives. An execution team or consultant would allow for system adoption and implementation to flow more smoothely to ensure there is no work stoppage during system implantation as personnel, processes, and procedures are shifted and realigned to a new organizational structure that is spearheaded through the ERP system (Kumar & Gupta, 2012).

Ali and Miller's (2017) analytical discussion on ERP system implementation within large enterprises was a valued related study because it provides insight on ERP system implementation, specifically from the perspective of a large company or enterprise. This source focuses on implementation strategies and provides a pinpointed lens into the specific problems large companies may encounter when implementing a new system, along with the mitigating framework used to combat significant challenges. As found in the current research, Ali and Miller (2017) report that there is no industry standard model for ERP system implementation proven to increase system implementation success. This report was compiled from extensive research on ERP system implementation and uses a three-pronged structure that analyzes pre-implementation, implementation, and post-implementation, while incorporating the ERP lifecycle framework and synchronizing theoretical and practical developments to provide a holistic view of ERP systems concerning decision-making. Ali and Miller (2017) pinpoint three critical factors that either lead to or inhibit success, including top management support, good project management teams, and good communications. This finding fills a previous critical gap within research; understanding how these critical components impact system implementation and

system success can provide a blueprint for successful system implementation. This source provides insight into the critical linkage between upstream and downstream partners, thus emphasizing the importance of ERP system functionalities and their ability to combine all information flows into one systematic view, providing a complete look at company and partner operations at a glance. The consequences of inaccurately implementing or operating an ERP system include time consumption, costliness, and stress for companies and operates due to a lack of system knowledge. Mitigating such consequences is discussed in this source through the three-prong approach.

Discussing the pre-implementation, implementation, and post-implementation three-prong approach highlights the need for a single-source reference for the industry to look to for a system implementation guide to understanding possible and common causes of implementation failure, thus enabling companies to limit this possibility. ERP systems were originally crafted to manage and predict material requirements, though they have transformed into complex comprehensive synchronization systems that encompass all aspects of business operations, production requirements, and outputs, as well as partner integration. They are most useful for their ability to provide information integration and operational synchronization to enable company leaders to make decisions based on the outputs of such systems. The first phase identified in this source is pre-implementation. Ali and Miller (2017) explain that pre-implementation often involves activities such as planning, deciding roles within the system, preparatory training, and planning for change concerning logistics, operations, and a pilot of the change to investigate first and second-order effects. This phase also includes research to understand how the new ERP system will affect all aspects of a business to then craft mitigating solutions to avoid system implementation failure. The second phase as outlined by the research

includes the actual implementation of the newly selected and adopted ERP system. This phase looks to analyze how desired functions and actual functions of the system compare, in order to analyze whether pre-determined objectives and goals associated with system implementation and functionality can come to full manifestation through system capabilities. Gaps in operations and system integration are discovered during this stage. This portion of the process can last anywhere from a year to nearly three years. The last phase suggested by the research is post-implementation. Since ERP systems do not have a termination date, the post-implementation phase is never-ending and seeks to provide solution sets to ERP system functional gaps and operation vacancies where integration and synchronization are not present. This phase is focused on solution identification, trial, and implementation to ensure proposed solution sets fill gaps to uphold and fulfill pre-determined objectives. This study is an impactful tool as it provides a roadmap an organization or company can use when initiating ERP system implementation to improve the success of system implementation in their organization. This source has the potential to help companies plan system implementation using the strategies and findings of the research to decrease the probability of system or operational failure.

The above studies are closed related to the current research as they highlight various aspects of the current research that are vital to the understanding, scope, and functionality of the research problem. These four primary studies directly relate to the core content, conceptualism of the research framework, and anticipated findings of the problem being researched. Each study is closely aligned with the core problem and scope of the research. They outline preparation needed, potential aspects of system failure, and the six-stage implementation model organizations can use to successfully implement an ERP system. Each study provides a different perspective or vantage point in which to see, understand, and analyze ERP system adoption and

implementation. These persectives include the following: identified issues with information and operation integration and synchronization found to create frequent system implementation failures, ERP system success factors, and implementing ERP systems in large organizations. Through triangulation, the above related studies served as a foundation that provided validity demonstrated the necessity for the researched topic. As the business arena surrounding ERP systems continues to grow, evolve, and expand, the benefits and advantages of ERP systems continue to be uncovered. The aforementioned related studies and the current research will work together to provide a roadmap for organizations seeking to adopt and implement ERP systems to streamline business functions, improve information sharing, and better synchronize business operations in a manner that elevates organizational performance to better attain and surpass organizational goals and objectives.

Anticipated and Discovered Themes

An anticipated theme is obvious and can be easily seen, while a discovered theme will arise to become perceptible as research continues. There were several anticipated themes that arose throughout the totality of the research. One anticipated theme was the resistance to change. As organizations look to be competitive and streamline operations to increase their profitability, change within operations, process, and system functionality must occur. However, employees and even management are often comfortable with the status quo, making change uncomfortable. Change requires learning new processes, procedures, and often new computer systems. Employee resistance to change is extremely common and must be combatted through a thorough explanation of the change and demonstration of change benefits, hopefully resulting in employee buy-in. Employee buy-in is necessary for organizational cohesion and organizational performance. Research findings confirmed the anticipated theme was valid. Participant feedback

from interviews proved the anticipate theme to be an actual theme of the research project. This hesitance to change was also seen in the slump in organizational performance. It was expected that additional themes would be uncovered throughout the research, and indeed, discovered themes became apparent. Such discovered themes included lack of employee buy-in and the effects of overall organizational transition. Triangulated research feedback and performance metrics confirmed the discovered themes.

Summary of Section 1 and Transition

Enterprise resource planning systems allow for the integration of information, data inputs, schedules, and processes to synchronize with various department statistics, information, and sales, which are then input into the system's algorithm to produce accurate and reliable decision-making data solution sets. ERP systems are renowned for their ability to streamline business processes, but they often experience failure within an organization due to a lack of preparedness on the part of the organization to analyze existing personnel skill sets, daily processes, and procedures, and the inability to clean inaccurate or unreliable data before system adoption and implementation.

The purpose of this study was to research and analyze which critical organizational components are the most significant and how they must be adjusted before system implementation to ensure successful system adoption. This research addresses an identified potential problem and analyzes the background of the problem and its purpose. Research questions provided avenues for further inquiry. The nature of the research study identified the research under the Logistics and Supply Chain cognate with a constructivism paradigm while using a flexible design method. The flexible design method employed a single case study to examine relative concepts, theories, actors, constructs, and variables using a conceptual

framework figure to demonstrate how each component was related to the larger problem. Additional elements of the research addressed under the literature review included applicable business practices, related studies, and anticipated and discovered themes. Supporting material explained key terms and identified assumptions, limitations, and delimitations, and analyzed each for risk mitigation. Lastly, the significance of the study was highlighted by addressing gaps in the literature, biblical integration, benefits of business practices, and the relation of the study to the cognate. The formatting described enhanced the focus of the research and formulated a foundation from which useful implications for future business practices could be identified as readers see the importance of incorporating this research's findings into daily business processes. This research preparation served as a compilation of research findings within Section 1 of the final dissertation.

As further research on the topic was performed, Section 2 was compiled to include a deeper analysis of the research by identifying the role of the research and discussing the methodology. The case study was performed as participant information, population, and sampling was conducted to survey the participant demographic and sampling types. Data from the participants was collected and analyzed for accuracy, grouping, and follow-up. Additional information about data organizing was discussed to ensure data was processed and interpreted accurately to include the reliability and validity of participant responses. The project or case study was discussed from a holistic perspective analyzing all components for how they interact and affect one another. Lastly, a research proposal and defense was submitted, concluding sections two and three.

Section 2: The Project

The research project sought to gather information and further understand organizational preparedness and its potential effect on improving and enhancing an organization's ability to successfully adopt and implement enterprise resource planning systems. This project was designed to be flexible in order to shift and accommodate new and emerging significant ideas and themes as they arose. A single case study with participants was employed to extract data sets from participants' feedback using interviews and surveys. Data from these qualitative methods was organized, sorted, and analyzed to understand organizational performance, corporate culture, and policy before, during, and after ERP system transition. Derived data sets were used for analysis and triangulation to answer critical research questions from which applicable recommendations could be drawn from the results and dessiminated to stakeholders. This section describes and outlines how the research was conducted and includes critical elements that required execution plans, including the purpose, role of researcher, research methodology, participants, population and sampling, data collection and organization, data analysis, and reliability and validity. Analyzing and understanding the use, role, and intent of each component was critical to provide a foundationally creditable research study.

Role of the Researcher

The role of the researcher was to highlight an existing problem; collect information about the problem, its surrounding environment, and all factors that are inputs or outputs of the problem; record the data collected or observed; and lastly, analyze the data collected for understanding and conclusions (Hagues, 2021). In collecting information, it was critical to ensure information came from multiple trusted sources to create validity and diversity among the information. Within the collection phase, the information had to be sorted and analyzed so it was

sequential and chronological and could tell a story related to the research (Collins & Stockton, 2022). After the data was sorted and organized, it was synthesized to enable the extraction of patterns, trends, and conclusions to be drawn from the data. Outlining the specific actions to be taken while conducting the research provided order and validity to the research. The researcher had to be particularly mindful to embed bracketing measures into the research method, thus working to ensure personal bias does not lead to inaccurate and unsupported conclusions drawn from the research solely based on the thoughts and opinions of the researcher.

Actions Taken

The researcher took several actions within the research to extract pertinent data to understand the organization's position internally and externally before, during, and after system adoption and implementation. Initially, the researcher interviewed the employees and disseminated surveys to understand roles and responsibilities, skill levels, and available training, as well as the corporate culture (Collins & Stockton, 2022). The same interview questions were asked of employees on their thoughts, feelings, and opinions before, during, and after system adoption and implementation. Questions about distinguishable changes in all three areas were asked as well. The researcher was cognizant not to interfere or influence the employee's responses to questions nor to insinuate they should answer the questions in a specific way. This was done to avoid bias or unreliable answers. Upon conclusion of the interview, the research sorted and organized the employee answers based on the questions answers. Trends in answers given or in the change of answers given during the various phases were carefully analyzed and noted as potential pivot points or moments of consideration for process improvement (Hagues, 2021). Once the answers were sorted, conclusions drawn, and the researcher felt no need to revisit specific questions or ask to follow up on questions for clarification, the next step was to

move toward data extraction. The researcher extracted performance data and process timelines from performance periods before, during, and after system adoption and implementation to see if the system had an impact on organizational performance. Lastly, the researcher read and analyzed organization operating procedures, process guidelines, and operating standards to see if operations before, during, and after system adoption and implementation were performed following organization guidelines. Approaching the research with this three-pronged approach enabled the triangulation of research data from which to extract valid, data-driven, and survey- or interview-supported conclusions from which solution sets on improved system adoption and implementation could be derived (Collins & Stockton, 2022).

Bracketing to Avoid Personal Bias

Bracketing was a critical aspect of research that sought to ensure the unbiased and valid results of conducted research through the researcher's ability to set aside bias, pre-conceived ideas, thoughts, or knowledge including personal experiences, religious affiliations, and perceived commitments, thus releasing one's perception of the topic before research to fully accept and embody the results derived through vetted research practices (Janak, 2018). Within this research topic, bracketing was performed in the manner of utilizing a blind survey using an outside entity or researcher who was neutral and perceived to be unbiased to participants. Additional methods were used such as the vetting of interview questions by organizational leadership, as well as avoiding the use of personal questions that were not critically linked to the research topic. Also, as performance information was extracted and filtered from the organization, the researcher made sure not to filter out data points to support personal conclusions or patterns of thought. Bracketing can be difficult when a researcher has a passionate

position or thought pattern connected to a research topic, yet it is critical for the validity, reliability, and creditability of the work and research being produced (Janak, 2018).

Summary of the Role of the Researcher

In conclusion, the researcher played a pivotal role in conducting the research and extracting information from the organization to organize and sort data in a manner that provided a complete picture of the organization, its performance, and potential gaps in processes, procedures, performance, training, and corporate culture. The researcher took specified steps to gather information, including disseminating surveys, conducting interviews, analyzing organizational processes, procedures, and guidelines, and extracting performance data from organizational databases and archives. These various forms of data extrapolation enabled the triangulation of data to produce supported, comprehensive conclusions and then produce solution sets for identified organizational gaps or shortfalls. Understanding the role of the research was essential to creating a sustainable roadmap from problem identification to problem resolution.

Research Methodology

To properly structure and convey the core message of research, a research methodology had to be selected to decide the approach, strategy, tools, and techniques that would be used to collect observations, information, data, and metrics to analyze and draw conclusions to arrive at new understandings and revelations (Tobi & Kampen, 2018). Within every research approach, there are methods also known as tools that are used when conducting research. A chosen method develops into the research methodology. Under each design, various methods can be used to guide and construct the research. The flexible design combines a chosen method and triangulation source to provide a holistic and comprehensive look at the research along with data-

driven links to provide validity to the solution or discover insight provided through research results. This research was conducted using a flexible design with qualitative methods.

Discussion of Flexible Design

Research design provides a structural framework of methods and techniques available to the researcher to provide structure to the research. The design determines how the researcher will study the problem from a macro perspective while simultaneously providing a systematic and structured approach looking to discover and make inferences among the unknown. The design encompasses the collection of data that includes critical information related to the research. Three types of designs further define how the researcher studies a problem based on the method chosen within each design. The three types of design are fixed design using quantitative methods, flexible design using qualitative methods, and mixed methods design using quantitative and qualitative methods (Schoonenboom & Johnson, 2017).

Flexible design has a loose structure and its definition within the research proposal allows the research to evolve and adjust methods of data sourcing and focus as new emerging information is discovered, or as needed based on the direction determined to be most prudent to the research objective. The flexibility of this design is predicated on the nature of the information usually not being numerical; thus, there are no restrictions during the discovery and accumulation of data and information. The flexible design uses qualitative tools and allows for freedom when collecting data without having to strictly abide by a pre-determined collection structure or matrix (Allaverdi & Browning, 2020). The main difference with the design being flexible, as opposed to fixed, is that it can evolve during the research as new and emerging information becomes available or is discovered. Qualitative and quantitative data can be used within the flexible design to formulate conclusions and solution sets. A flexible design is

preferred when trying to further uncover or understand a philosophy, happening, or idea. It is preferred because it enables the mode and method of inquiry to change or evolve to the most applicable or appropriately suited technique, even if incrementally discovered, as new data is obtained. Research topics that are not numerical such as human relations are best suited for flexible design due to the ability to change the research method or scope as more information related to the topic is discovered (Božanić & Sinha 2020). In diverse scenarios, the researcher may see the need for one technique to be used that was not initially selected to maximize the validity, depth, accuracy, and intensity of knowledge gathered for analysis. Due to the flexibility of this design, it is not suited for numerical and data-driven research topics that require a fixed structure for the system and algorithmic patterns to remain constant and valid (Prominski & Seggern, 2019).

This research study was conducted with a flexible design using the qualitative method; specifically, a single case study design was used. Methodology refers to the strategy in which the research and study are conducted (Allaverdi & Browning, 2020). Within that strategy, a flexible design was the most appropriate methodology for this study because flexible design methods are defined in a general sense as part of the research proposal, and following the proposal, the researcher was free to adjust the research as necessary using a qualitative tool and conveyed using qualitative techniques. Allaverdi and Browning (2020) discuss the ability of flexible designs to be assessed, selected, and integrated throughout the entire study. Flexible design also looks to minimize uncontrolled variations in the development of the study and allows for discoveries within the study to change the source of the case study where need be. The flexible design was preferred for investigating an organization's potential lack of preparedness because the design allowed the reality of the problem to be identified, explored, and shaped based on the

research produced through the case study. Using the associated research questions that address what components are needed for organizational preparedness and why organizations lack this preparedness allowed insight into how to frame the study most effectively. The flexible design allowed the study to be shifted based on the response to these key questions. The flexible design was most applicable to the research at hand because, as the logistics industry was studied, it was imperative that techniques could be added or taken away from the research method to ensure the correct information was captured that was most applicable to ERP system adoption and implementation.

Discussion of Case Study Method

Within research, a method was chosen as the structure for which to gather and study a research topic. Multiple methods can be employed for research to include a narrative design, phenomenology design, grounded theory, and case study. Case study can be comprised of either a single case study or a multiple case study. Case study methods are used to explore constructs related to how a company or person maneuvers a situation or, using multiple companies or groups of people as a comparison tool, to evaluate and discover how various companies, people, or groups of people handled the same situation differently, thus demonstrating different results (Yin, 2003). Case studies allow for in-depth, diverse, and multi-faceted investigation, data collection, and analysis of complex, multi-dimensional issues in real-life, real-world contexts. Case studies breathe life into real-world scenarios and enable theories, conclusions, and data to be extracted from the scenarios, emotions, and outcomes of people and organizations. Within a case study, specific research questions aid in guiding the study and pinpointing specific areas of interest. Often, case studies are most useful and helpful in scenarios where a topic or circumstance may be underappreciated, trivialized, under-valued, or ignored. Case studies

illuminate the experience of those facing such issues, thus giving the topic life, depth, and importance (Khalifa et al., 2020). Case studies are most frequently used in cases of business, policy, or law. Understanding a scenario in its natural state of occurrences, along with its original context, adds value to the research and enables one to draw valued conclusions from the study. Case studies allow the experiences of groups to be evaluated and compared to other groups in similar circumstances, thus illuminating areas of disparagement or maltreatment. Case study research methods provide insight and critical details in hopes of attaining an in-depth understanding of a case, situation, or scenario as an integrated whole (Chirapanda, 2019). Case studies are not well suited for data-driven or algorithmic studies.

This study was conducted with a flexible design using qualitative methods; specifically, a single case design was used. The case study further demonstrated and illuminated the consequences of organizations lacking preparedness before enterprise resource system adoption. The case study design functioned as real evidence and proof of how preparedness before system adoption and implementation can help ensure organizational longevity and durability and minimize supply chain management disruptions to avoid decreases in productivity. Wieringa (2014) describes how a single case study and individual cases can be used to explain a phenomenon or teach a lesson based on the outcomes. This proposed case study design was pivotal because it clarified the problem through means of demonstration. The case study research method was the best method for the current research because it allowed the researcher to display a company in a specific scenario and understand how the organization navigated through the scenario. This method allowed the research to highlight factors that were and were not considered in real-time while the organization navigated the scenario (Cakar & Aykol, 2021). A case study illuminated how being unprepared for system adoption and implementation can result

in the disruption of supply chains, thus causing a decrease in profit margins. A case study can also provide insight into how organizational preparation before the adoption and implementation of an ERP system enables seamless processing of system operations, thus preventing supply chain disruptions and mitigating potential risk to maintain or even increase profit margins. A case study was the best method for this project as it allowed the researcher to understand the organization and their experience, and provide a solution set to be used in a similar scenario in the future.

Discussion of Method for Triangulation

Triangulation takes place in qualitative research when various research methods, data sources and research findings are used in culmination or collaboration to uncover or discover a new and significant phenomenon or understanding (Carter et al., 2014). Triangulation is a powerful tool that combines or draws lines of connection to uncover a deeper more connected truth. There are four types of triangulation, including data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. These triangulation types work to validate a thesis or hypothesis and bring a deeper or broader understanding of a conclusion thought to be true. When a researcher uses multiple methods to answer a single question and produces the same results, it strengthens the credibility and validity of the research findings. Triangulation also works to dismiss and minimize bias because research conclusions are not just drawn from one source or method, but bring together multiple sources and modes that all point to and uncover the same truth.

Methodological triangulation is comprised of using various and multiple methods of information gathering to draw conclusions and connections. This type of triangulation is often used in case studies to draw various aspects of a story together to decipher a concrete conclusion

(Casey & Murphy, 2009). This study was conducted with a flexible design using qualitative methods, specifically, methodological triangulation. Methodological triangulation describes the use of multiple methods to create triangulation between various factors. A flexible design incorporating methodological triangulation allows for diverse research methods and modes such as surveys, interviews, observations, data documents, and questionnaires. Within a case study, having the ability to interview key personnel such as leaders and decision-makers, gather general information and insight from employees via questionnaires and observation of the work, and analyze data documents and process outputs provides beneficial insight into how the various courses of information uncover the depth and true source of potential organizational problems.

The selected triangulation method for the research topic and applicable questions was methodological triangulation. Methodological triangulation allowed for the use of various information sources and modes of information collection to draw connections and links to further explain the research topic or answer research questions. The use of multiple methods to study one topic or occurrence allowed for information on the topic to be gathered from many different perspectives, thus enabling the culminated thoughts, ideas, and solutions sets to be comprehensive and holistic, the researcher having studied and considered the research topic from all angles, perspectives, vantage points, and lenses of interpretation. When researching the potential lack of organizational preparedness required to effectively adopt and implement integrated enterprise resource systems, the topic had to be studied from varying perspectives to form a comprehensive, all-encapsulating view of the organization's need for an ERP system and the organizational condition required before system implementation, including an organization's culture, personnel, and processes through each phase of system implementation including adoption, execution, and sustainment. In addition, data-driven metrics were extracted from the

legacy operating system and the newly implemented ERP system to be studied to examine the effectiveness of system implementation on manpower and labor, supply chain disruption, and the overall profit margin. Additional research was conducted via employee and leadership interviews, surveys, and observation to gather findings on the analysis and assessment of organizational business culture, operating environment, employee perspective, and system training and its effectiveness to meet and exceed organizational and system demands. Using the outlined variety of research approaches to gather pertinent information and triangulate that information to discover common threads and causes and address all facets of business operations provided a comprehensive view of organizational preparedness, culminating in a more accurate and precise view of the root cause of the problem, giving way to easily applicable, realistic, and workable solution sets. Methodological triangulation was the only source of triangulation that allowed the various types of information sourcing such as surveys, observance, data collection, and interviews to be used to triangulate the information to discover common threads that link interview answers to survey results that are then seen in the numerical data, thus validating the research findings. The findings provided answers to research questions and provided insight into how organizational preparedness before ERP system adoption and implementation can help organizations avoid an increase in supply chain distruptions and a decrease in profitability.

Summary of Research Methodology

In conclusion, research design, method, and triangulation were critical to the accurate understanding of the research's purpose and proposed solutions. Design, method, and triangulation worked together to provide structure and articulation of information in a matter that was sorted and directed the thinker to completely see the purpose of the research. The problem was highlighted and the prosed solution set backed by the linkage between data, observation, and

related academic work. A flexible design allowed for flexibility; as emerging information arose, the researcher could shift or change their focus or method of information collection based on emerging information discovery. A case study method was used as the backdrop for which the research problem was analyzed. Using a case study provided a realistic, real-world scenario in which to see the gravity and magnitude of the problem, the severity of its effects, and how a comprehensive solution set could address the outlined problem. In the case of this supply chain oriented research, the solution set worked to improve organizational performance and increase profitability. A case study was most suitable to investigate organizational preparedness due to the realistic and unscripted experience of participants sharing how the adoption of the new ERP system affected organizational performance, corporate culture, and policies and procedures. Triangulation was performed, taking interviews responses, surveys results, data-driven performance reports, and the observation of processes and procedures, to align various sources of information to further support and validate the primary objective of the research. Drawing conclusions at lines of intersection between the data allowed for a valid and credible foundation to be produced in seeking to answer research questions and provide recommendations for stakeholders. Fully understanding each component and how they worked with one another to enrich the research provides a clear pathway for the research and reader to collaboratively see a problem, understand the purpose of the research concerning the problem, and come to a solution set that adequately addresses the research problem through various methods, in combination with triangulation to validate the findings.

Participants

The research problem for this project was initially discovered through an analysis of the automated logistics community. The research for this project was conducted within a

participating company. This company provides logistics services through manual and automated systems. This company has chosen, adopted, and implemented an enterprise resource planning (ERP) system known as SAP to synchronize and streamline routine customized logistics operations in order to more swiftly and accurately deliver logistics solutions to its customers. In conducting the research, participants were be chosen based on their time within the company and their positions. Employees who resigned during any portion of system adoption or implementation, known as the transition phase, were not suitable to participate in the survey because they would not have a complete and comprehensive view of the company, processes, and performance outcomes before, during, and after the transition, since they no longer worked with the company at some point during the transition. Employees who were present during the implementation phase or after the ERP system was completely installed and functional but were not present before system adoption and implementation were not suitable for an interview or survey about the system transition due to their lack of pre-system knowledge about the company, its process, procedures, corporate culture, and performance before system adoption. Only employees who were fully employed during all stages of system transition, including before, during, and after ERP system adoption and implementation, were suitable to participate in the research, since they could provide a fully comprehensive view of and possessed personal experiences with the company, its procedures, processes, performance metrics, and corporate culture at each phase of the transition. This comprehensive experience within the organization allowed employees to provide a complete picture of changes within the various sects of business. Their perspectives told a story and exemplified how changes affected the organization, its processes, and its people collectively and during each phase of the transition. Once all interviews and surveys were collected and compared, the research obtained an in-depth view of the specific

changes employees observed and the impact and results of those changes, thus providing a roadmap for areas of process, system, and training improvement.

The other participation guidelines or restrictions were based on each participant's role within the organization. The thoughts, ideas, and experiences of all employees are valuable; thus, senior management, middle management, and all other employees participated. All employees were given a core set of questions in each interview or survey; however, there were also additional questions that were specifically tailored to individual positions and outlined responsibilities within the organization. The sub-sectioning of questions based on role and position enabled the researcher to have a more accurate view of how each role within the organization was affected by the system adoption and implementation. It provided a specific lens to see if one group was more adversely affected than another during a particular phase of the system transition. The deep dive into participant inquiry provided a complete picture, thus enabling all employee's thoughts, ideas, and opinions to be heard and seen equitably. No other participant qualifications were necessary; gender, age, race, or education were considered but determined to have little to contribute to the organization's ability to effectively prepare for the adoption and implementation of ERP systems to streamline and synchronize logistics and operational workflow. Providing an accurate and complete view of the organization and its internal and external struggles with system configuration, processes, procedures, corporate culture, and performance metrics enabled the researcher to craft specific, well-defined solution sets applicable to the complex and in-depth organizational preparedness problem the organization was experiencing.

Population and Sampling

Population and sampling within research describe the group of people affected by the research topic from which a researcher would like to survey, interview, or observe, and thusly, population and sampling also describe how the researcher equitably extracts from the population a sample that is indicative of the whole to develop research conclusions that are representative of the entire population. Population describes the entire group of people or an item from which one looks to draw a conclusion, idea, or thought and often contains all data or metric points in a collection (Cook & Bergeron, 2019). A sample describes a smaller subsection of the population: a group or section extracted or taken from the large population or group for the utilization of measurement or analysis (Verma &Verma, 2020). Understanding the difference in population and sample is critical to the formulation of accurate research methods and results. Knowing how to properly survey the population to extract an accurate sample is often the key component that contributes to whether research results are seen as valid, accurate, and indicative of the entire population.

Discussion of Population.

Population Characteristics

Population characteristics describe the traits or commonalities all members of a population share (Sparks & Joyner, 2019). In this research context, there were two primary population characteristics shared by all members. The first characteristic of the population to be studied was that each member was employed by the participating company during the organization's system transition of adoption and implementation. The second binding characteristic was that each member of the population was present for the entire system transitions phase including before, during, and after. Employment with the organization and the

duration of employment through all three phases of transition are the only two population characteristics. Since all population members are employed by the organization, the level of management was not a factor, but survey and interview results were be subdivided by the level of management to organize, synthesize, and analyze results. Characteristics such as gender, age, socio-economic background, education, and race were not stratified and considered at this time.

Population Appropriateness

The two characteristics outlined above include employment at the organization and duration of employment to include all three transitional phases. Characteristics such as those outlined above were appropriate for this population because they were the only two factors determined to have a significant influence on the accuracy and validity of the research and its derived results (Harper, 2021). The researcher looked to hear, collect, and include feedback from all members of the population on their experience during each phase of system adoption and implementation. Population member demographic information was not a factor in analyzing employee personal experience and the ability of the organization to suitably prepare its personnel, processes, procedures, and performance abilities for the new ERP system. Management level was a sub-characteristic that not all employees had in common, but it was measured to sub-divide interview and survey responses from which to draw a more accurate picture of change impact and effectiveness within each sector of organizational employment.

Population Size

The eligible population describes those persons that fit the scope of the research participant and possess the shared appropriate characteristics as outlined above. The population size for this research included all employees employed by the participating company during the entirety of the transition phase, including before, during, and after system adoption and

implementation. That population was 60 personnel in total. Of the 60 personnel employees during all three transition phases, 49 were hourly employees, eight were middle management, and three were senior management. The population did not consist of all employees, simply the employees who met participation and characteristic criteria.

Discussion of Sampling

Sampling Method

Sampling refers to the selection of a subset of a population or group. Sampling most frequently seeks to ensure the demographics of the sample are representative of the entire population and thus reflective of the thoughts, patterns, and behaviors of the entire population. Various methods can be used to extract a sample from an entire population. When seeking to extract the sample, it was imperative that the method selected be most suitable for the type of population and in congruence with the identified problem being researched. Sampling methods include simple random sampling, systematic sampling, stratified sampling, cluster sampling, convenience sampling, purposive sampling, and snowball sampling (Turner, 2020). A random sample chooses participants in a population at random to be included in the sample and does not use a specific method for choosing a population, thus providing no guarantee that the sample will be representative of the entire population (Lavrakas, 2019). Systematic sampling is the specific method in which participants are chosen out of the population and focuses on that mechanism in choosing the entire sample. Stratified sampling divides the population into sub-population groups based on identified differences within the population, allowing inferences to be drawn from smaller, more homogenous population groups. Similar to stratified sampling, cluster sampling divides the population into sub-population groups, but in this instance, cluster sampling ensures each subpopulation is reflective of the whole instead of a group based on similarity (Shi & Chen,

2021). Convenience sampling allows the researcher to select participants that are conveniently available based on participant proximity or willingness to participate. Purposive sampling allows the researcher to use their expert knowledge about the research to select a sample they deem to be most useful for the research in general or for the conclusion they wish to derive (Turner, 2020). Lastly, snowball sampling uses active sample participants to recruit others who may want to participate as a component of the sample.

The most appropriate research method for this research was purposive sampling. It allowed for a subsect of the entire population to be identified based on needed characteristics of each participant, helping to ensure the sampled group was purposefully and intentionally reflective of the entire population (Ames et al., 2019). Purposive sampling allows the research's purpose to be the primary selection facto for sample selection. It allows participants to be purposefully selected based on useful criteria as determined by the research and the researcher. Purposive sampling was best suited because it ensured a member from each management level was included in the sample at an equal proportion to the entire population because it allowed participants to be chosen for the sample based on this purpose or criteria (Ames et al., 2019). Using stratified or snowball sampling would not have ensured the sample group was diverse to include various management levels, yet it was likely to produce friend groups among participants that may have group think or all one level of management as opposed to a proportioned mix. Systematic sampling also would not be best suited for the research unless the researcher ensured the systematic way participants were chosen would not have embedded biases that would skew the research results. Due to the above mentioned reasons, purposive sampling was the selected sample method to provide valid and creditable research results while minimizing bias and pre-determined researcher outcomes.

Sampling Frame

A sample frame refers to a complete list of everyone or every participant the researcher is looking to study and a list of everything the researcher wants to study about the participants. The sample frame seeks to specifically identify a listing of all participants by name, not just a group of employees potentially including contact information (Arora et al., 2021). For this research about organizational preparedness before the adoption and implementation of ERP systems, the sample frame included all employees within the sample by name. It also included what would be studied specifically concerning research topics. The frame listed each employee included in the sample and their position and level of management within the organization. Topics included in the sample frame were corporate culture before, during, and after system transition; system and process training available before, during, and after system transition; leadership style before, during, and after system transition; policies, procedures, and process before, during, and after system transition; and lastly, work performance before, during and after system transition. The five primary areas of concern about organizational preparedness include corporate culture; system and process training; leadership style; policies, procedures, and processes; and work performance. Assessing these areas using comparative analysis listed within the sample frame helped organize and channel research results into specific, orderly, and comprehensively direct responses or solution sets to identified problems within the identified organization that if remedied could improve and wholistically enhance organizational preparedness for organizations seeks to successfully adopt and implement enterprise resource planning systems.

Sampling Size

The sample size identifies the exact size of the extracted sample from the total population (Norouzian, 2020). The population was 60 personnel; thus, a purposive sample would be a fourth

of the population which was 13 participants. The purposive sample included eight hourly employees, three middle managers, and two senior management. The sample size was systematically derived as approximately 16% of hourly employees were selected from the population and comprised 62% of the sample size; approximately 38% of middle managers were selected from the population, which comprised 23% of the sample size; and approximately 67% of senior management were selected from the population, which comprised 15% of the sample size. All sample participants extracted from the sample concluded in a total 22% of the entire population being used for the sample. It was imperative more than one participant be included within each level of management to ensure saturation. If only one participant were included from senior management, which would be closer to the sample being proportionate, it would excluded sample saturation because it would not gauge to see if the responses of that one senior manager were reflective of the entire population. This explains why 38% of middle management and 67% of senior management were selected for the sample size to help produce sample saturation through the potentially repetitive nature of answers derived from interview and survey questions. The sample size was appropriate because it was indicative of the entire population, it was proportionately indicative of each level of management, and it was comprised without researcher bias (Norouzian, 2020). Individual interviews and surveys were conducted; thus, a 22% sample size of the entire population ensured employee availability due to the smaller size, as well as preventing researcher burnout from personally speaking to each member of the entire population. Access was gained to the sample size through an employee interest letter after coordination had been approved by senior management to use the organization, its employees, and its managers at all levels within the research. Research execution indeed matched the proposed sample size and population percentage. The forethought included in the sample selection proved to be useful and

accurate as participants from each level of employment were surveyed and interviewed within the research project. This provided a balanced yet varied response to research questions and provided in-depth knowledge surrounding the employee experience.

Summary of Population and Sampling

In conclusion, when conducting research, the researcher must understand the various components and implications involved with identifying and selecting participants, identifying a population, and selecting an appropriate and applicable sample. The researcher must identify participants, outline how participants are chosen, and analyze what criteria are needed to accurately select participants that enhance and enrich research findings. In this research, the researcher chose participants from each level of the organization to include hourly employee, middle management, and senior management, all having worked at the organizational prior to the beginning of system transition. The researcher then had to observe and study the population, its characteristics, appropriateness, and size. Understanding the population enabled the researcher to cultivate a valid and credible sample size using a specified method best suited for the research topic. The sample described using the sample frame with special attention to the sample size to ensure sample saturation was present. This research's sample was 22% of the entire organization's population, selected using purposive sampling in a manner conducive and most effective for the research. Identifying and carefully considering the aforementioned components of research curated an orderly research design and enabled valid and applicable solutions sets to be derived from research findings.

Data Collection & Organization

Data collection is the core component of active research. Collecting data lays the groundwork needed to provide substance and substantive information as a basis for investigation,

pattern findings, thesis proving, and thesis backing and the support needed to manufacture and provide conclusive research results. Data collection is a rigorous process that involves selecting a data collection plan, checking members, conducting follow-up interviews if applicable, explaning instruments used, utilizing interview guides, determinging how to conduct and analyze survey results, extrapolating archived data, and detailing a plan on how all information will be sorted and organized. Constructing a detailed plan ensures the validity and reliability of information are maintained as data is merged with similar findings to create credibility, form the basis of triangulation, eliminate bias, and highlight core issues, thus illuminating a path forward to solution set creation.

Data Collection Plan

To ensure the validity, reliability, and creditability of the research, an appropriate data collection plan must be selected and crafted to instruct and direct how data will be collected in a uniform and consistent method that ensures appropriate extrapolation needed to gain proper insight into the problem, company performance, and personnel patterns (Paul, 2021). Data collection for research on organizational preparedness to ensure the successful adoption and implementation of ERP systems was performed in a cross-sectional, three-tiered structure with special emphasis on organizational performance, corporate culture, and process and procedural effectiveness before, during, and after system adoption and implementation. The first component to be investigated was organizational performance. This component included organizational profit margins, supply chain reliability, supply chain disruptions, and the ability to deliver goods to customers within established metrics. The second component of focus was the corporate culture which includes employee satisfaction, employee retention, system training, process and policy training, leadership styles, and unspoken acceptable norms. The third component of the

evaluation was a special focus on policies and standard operating procedures that govern the way business operations are executed and the way production functions are carried out to fulfill the organizational mission to meet customer demand. Each component was cross-referenced in trifold phases that closely analyzed the component before, during, and after system adoption and implementation. Data points from all nine segments were compared to draw a storyline to conclude if organizational performance, corporate culture, or processes and procedures had improved or diminished throughout each phase of the system transition.

This data was initially collected via survey to all employees who met the participation criteria. Following survey collection, a trend analysis was constructed using survey results to pinpoint areas for further investigation and research. Once areas of concern were pointed out by the survey results, indicating that further information needed to be collected to form a complete story, interviews were conducted at each level of management using a representative population so researchers could gain further insight into the commonly noted trends on the survey. During this period of information extraction from operating systems, employee surveys, employee interviews, and organizational and employee observations took place to further gain insight into leadership style, its effectiveness, and the unspoken corporate culture that exists within the organization. Data was extracted from financial systems to compare metric performance and profit margins during each phase of the transition. All information collected was organized, synthesized, and triangulated to tell a story and form a holistic conclusion about the organization before, during, and after system adoption and implementation. This was an appropriate plan for the research topic because it addressed all aspects of the research question within the data collection plan (Terrell, 2016). In addressing all research question aspects, the research sought to analyze the organization from a perspective that included employees and management while

providing comparative insight into how the adoption and implementation of ERP systems changed the organization in terms of processes, personnel, performance, and profit margins.

Member Checking

Member checking is an interview mechanism that uses cross-reference surveys or previous interview answers with participants to ensure their answers are accurate and reflect their intent (Birt et al., 2016). This tool is used to validate participants' responses for accuracy and redundancy, ensuring the answer a participant gives is indeed what they meant to convey and ensuring what respondents mean to say has been accurately captured via their survey or previous interview response (Iivari, 2018). The use of member checking creates an additional layer of validity because it eliminates any uncertainty surrounding if the participant meant to answer in a certain fashion. It is particularly helpful when a participant or respondent's answer is very different from other participants' answers or when their answer does not align with data. This second layer of validity ensures participants' thoughts, ideas, feelings, and opinions are accurately captured. Member checking within this research was reserved as a contingency tool. After the completion of surveys and first round of interviews, if responses did not seem to all be congruent or if participant answers had not aligned with other participants or extracted data, member checking was performed to ensure employee participants answered survey and interviews questions in a way that reflected the information they intended to convey. Though member checking is a resourceful tool, it is imperative during the member checking interview that the researcher not use threatening tonality or in any manner make the participant feel their initial answer was incorrect or that they should change their response in any way (Carlson, 2010). This would lend to inaccurate participant responses, thus skewing research findings, causing the solution sets created from the research to potentially be inaccurate and in favor of the

way the researcher wanted to portray the organization, their problem, and the solution that needs to be adopted.

Follow-up Interviews

Follow-up interviews are conducted when additional questions arise from the responses of the initial participant interview. Follow-up interviews can often further the researcher's understanding of the organization and the research problem; it can also provide in-depth knowledge on legacy organizational issues or congruent and complimentary problems the organization has yet to illuminate (Signorell et al., 2021). Newly extracted information received from follow-up interviews must be analyzed for relevancy. Researchers must examine and evaluate how newly discovered information affects the research problem and current gathered research. Accuracy is another element that may require additional follow-up interviews with other participants to see if this new information was known or has been witnessed by other participants. Follow-up interviews are a great time to pinpoint archived issues and understand how they contribute to issues currently plaguing the organization. Follow-up interviews were used within this research if new and pertinent information about personnel, organizational performance, processes, or profit arose.

Instruments

Instruments are tools used to further understand, extract, and extrapolate information, statistics, trends, and metrics from a source. There are various instruments available to extract various forms of data and other pertinent information. Interview guides, surveys, and archive data are resources and sources of information that provide insight into organizational operations. Insight from these instruments assisted the researcher in identifying the problem, learning about the problem, and thus crafting solution sets to address the problem.

Interview Guides

Interview guides are a strategic tool that often allows researchers uncovering valuable knowledge from which to understand the organization, thus enabling the researcher to properly address organizational issues (Magnusson & Marecek, 2015). An interview guide can be broad and list topics to be addressed, or it can be more specific and list questions to be asked. A broad interview guide allows for more free conversation, thus extracting information from a broad base of things. A more specific interview guide addresses specific, pinpointed topics in a very calculated manner. Both mechanisms are useful; the method is primarily determined by the topic and the reason for the interview.

Researchers often prefer to use a conversation method where specific questions are embedded inside of the conversation to relax the participant and not have the participant feel they are being interrogated. This relaxation and comfortability often enable participants to feel free to share and open up about their feelings towards and experiences with the organization in a purer, more organic fashion. Within the conversation of the researcher getting to know the participant, questions answered through conversation can be checked off and do not require readdressing in a more formal manner. Another tool researchers can use is situational questions within interview guides, which allows the researcher an in-depth look at how organizational policies and procedures are executed in realistic historical situations (Magnusson & Marecek, 2015). Situational questions allow a researcher to examine and analyze corporate culture to uncover inconsistencies, bias, and the unspoken culture of organizations which are often paramount to many organizational issues.

As a method to avoid bias, specific questions that all participants answer help ensure all participants' thoughts, ideas, and opinions are gathered about each aspect of the research (Daley,

2012). In the research being conducted about organizational preparedness, an interview guide with specific questions to be asked was provided and followed. The interview was done in a conversational format with questions embedded into the conversation, while all additional questions left unanswered at the end of the conversation were asked at the end. This format ensured all questions were answered from the perspective of the employees as well as middle and top management. This method created validity and worked to eliminate potential bias.

Interview Guide Questions

Appendix A has a complete copy of the interview guide used for this study. Question one was an open-ended question that inquired about the participant's opinion on the amount of preparation if any that was conducted before system adoption. On the guide, questions 2-10 address each aspect of research concerning performance and profits, personnel, and policies and procedures. Those questions were specifically crafted to address each phase of the system transition to specifically understand the thoughts and feelings of employees before, during, and after system adoption and implementation. Question 11 was an open-ended question that sought to validate the root problem identified through the research, using the participants' thoughts, opinions, and analysis of the organization in which they work and have spent much more time than the researcher. Each question was crafted to provide information and insight into the research problem and associated research elements. Coagulating interview results enabled a holistic perspective of what was internally occurring within the organization, thus confirming or redirecting the primary research problem and illuminating solution sets to address organizational issues.

Surveys

Surveying is a method of collecting information or data from a preselected or predefined group to discover thoughts, feelings, insights, or opinions about a topic or situation (Lavrakas, 2019). Surveys are user-friendly in their composition in order to attract participants. Due to the robust nature of the interview questions, and the limited number of participants allowing for all participants to be interviewed, only simple surveys were used. The survey was comprised of four simple questions that addressed the participant;s employment level, either employee, middle management, or top management, and whether organizational performance, corporate culture and training, and policies and procedures were more effective to meet mission requirements before, during, or after system transition. This survey was used for triangulation to corroborate interview results (Lavrakas, 2019). Though the survey was simple and direct as seen in Appendix B, it was not believed there was a gap in knowledge or information sharing, nor did it lack validity due to the decision to use a simplistic survey.

Archive Data

Archive data is data mined from legacy records or operating systems that tells a story about previous performance periods. Archived data can depict historic employee makeup and legacy corporate culture and display how the company has quantitatively performed in the past. Archive data displays the history of the organization’s strong performing areas and displays years, quarters, and in what products or services the company has performed well through the analysis of financial records (Late & Kekalainen, 2020). Understanding the archival history of an organization can help prove, through the analysis and comparison of current financial and performance records, if the company is currently operating in a healthier financial standing than in previous performance periods. Archived data can be used to support or uphold search theories

through factual demographics. In this research legacy, financial records were extracted to analyze organizational performance before system adoption and implementation in comparison with current or after system adoption performance, to analyze the gravity of organizational change from an operating and efficiency perspective.

Data Organization Plan

Data organization was an important component of the research. Data organization takes raw data and sorts and classifies the data, allowing for meaningful conclusions to emerge from sorting, trend discovery, and analysis of data triangulation. The data from the survey was first organized and broken into percentages. This organization discovered what percentage of the workforce and from what level (employee, middle management, or top management) feel the organization was most effective in three primary business components to include organizational performance, corporate culture and training, and policies and procedures at each phase of system transition to include before, during, and after system adoption and implementation. Organizing responses provided data for result triangulation once interview responses were tabulated, organized, and analyzed. Interview results were used to form conclusions from the research. Interview response data was collected and organized based on the level of the participant. Once sorted by level, data was interpreted to understand the response of the participant to determine if they felt the organization performed better in each business category, including organizational performance, corporate culture and training, and policies and procedures, during a certain phase of system transition. The way all information was sorted and organized provided an in-depth perspective and provided the basis for accurate conclusions to be made about the company and the way they operate.

Appropriate Process

Organizing and sorting data as prescribed below was the most accurate process because it addressed all intricate aspects of the research. Organizing data according to participant's level helped investigate where the perspective of the organization and its operating dilemma was different based on the management level or if all employees felt similarly about the organization. Once organized based on participant level, it was most appropriate to organize data based on phases. Information was segmented based on the transition phase in which participants felt the organization performed best. Then it was most appropriate to segment all nine subsections where before, during, and after are cross-analyzed against organizational performance, corporate culture and training, and policies and procedures. This cross-examination highlighted whether the organization performed specific segments well in certain phases or whether holistically the organization performed more positively in one specific phase. Once phases were segmented, each segment was evaluated to see which segment had the majority positive performance response from participants and then labeled as 3, 2, 1 or good, better, best based on which phase participants felt the organization performed well in overall This organizing of information enabled a complete picture and story to be told of the data, the participants' thoughts, feelings, and opinions. The organization of data collected during research told a story of the participant's experience and gave the researcher an in-depth view of the organization, its performance or operating issues, and potential solution sets to address identified problem areas (Creswell, 2013). Organizing data down to the lowest level where no further segments could take place was necessary to ensure layers of information, understanding, or operation were not neglected. The stratification of information based on like grouping also revealed commonalities among

participants, though researchers still had to be sure to use of an interview mechanism and survey technique that circumvented groupthink (Creswell, 2013).

Summary of Data Collection & Organization

In conclusion, data collection and organization plans are critical components of a research methodology and describe how the research is conducted in support of an identified problem. The data collection portion of the plan outlined how data concerned the research collected. Interviews and surveys were chosen as the primary means of data collection. Interview and survey questions were created to investigate the pertaining areas of concern and inquiry within the research. Answers to interview and survey questions were triangulated to form conclusions about the organizational components being studied, to bring clarity to the research problem while simultaneously highlighting workable solution sets to address the problem. Once all data was collected, organizing that data based on participant levels provided a cross-sectional view to see if employees of various levels felt differently about the organization and its performance. Information about performance, corporate culture, and policy was dissected based on each phase of the system transition including before, during, and after. The analysis told a complete story of participants' opinions and views during each transitional phase. Crafting a suitable data collection and organization plan helped to ensure research results were gathered and sorted in a manner that eliminated questionability and unreliability while helping to ensure the validity, reliability, and credibility of research findings.

Data Analysis

A data analysis plan is a primary component of qualitative research. A data analysis plan provides a guide as to how information gathered from the research mechanism will be organized, synthesized, analyzed, or interpreted (Oluwafemi et al., 2021). The method used for synthesis

and data analysis should contribute to the fulfillment of specified research questions. Most data analysis plans are comprised of five primary steps that ensure data is collected, analyzed, and interpreted properly. Those steps include the collection of data through research modes, organizing the data collected to form a connection, performing the qualitative coding necessary, analyzing the data for patterns and insightful trends, and lastly, reporting the data or informing research stakeholders of the conclusion derived from the research (Oluwafemi et al., 2021). In this research project, following a specific plan as outlined ensured research was conducted in an orderly method and addressed all components of data and research questions and captured the objective of the research, which was to provide insight into the initial research problem.

Emergent Ideas

Through the data analysis plan, based on the interpretation and analysis, emerging ideas or patterns may become more relevant or important to understanding and solving the research problem than initially anticipated. Emergent ideas are often ideas or concepts discovered during interviews where data saturation begins about happenings or occurrences not specifically outlined or asked about during the interview (Creswell, 2013). An example of this might include if multiple participants all offer information about a situation that occurred within the organization that changed the trajectory of how the company operated. That would be considered an emerging idea as the researcher had no prior knowledge to intentionally include it in the research, but due to the volume of participants sharing the same idea or concern, it was emerging as a critical contributing factor to the research problem. Emerging ideas are captured through the practice of writing memos when the researcher takes notes on the interview and the various aspects of information or knowledge the researcher has learned throughout the interview. Crafting memos assists the researcher in connecting the dots between questions to draw

insightful conclusions on the operating environment, relationship, or unspoken innuendos of an organization or situation (Mayor, 2022). The occurrence of an emerging idea may need to be taken and analyzed for importance and relevance; upon that conclusion, additional research or follow-up interviews may be required to fully understand the emerging idea, its importance, how it has affected or changed the organization, and what role it plays in the solution set to the research problem. Currently, there are no anticipated emerging ideas but contingency such as potential follow-up interviews.

Coding Themes

Coding seeks to clump or label sections of data based on repetitiveness or similarity. Coding can be performed using the words or exact data sets given or can be done using inferences or deductive reasoning to see verbal passages that are delivering the same content in a different manner (Wan, 2018). The mechanism of coding is used as factors or contributing information related to a specific idea, concept, or research questions appears throughout interview transcripts or survey results; it is given a code to signify what question or theme it supports. Codes draw lines of support from verbiage or feedback to a theme that is thought to link, to support, or reject a research problem or idea. Codes create themes when they are combined to draft an idea or running concept found through the research (Wan, 2018). Initial codes can be sorted and combined into group codes to tell a compartmentalized story of the research with supporting documentation in the form of interview feedback. The grouping together of similar codes encapsulates those codes into broader thematic categories. Concerning the current research, participant feedback was given codes; such codes identified statements that were closely related or that related to the same topic. Within this research study, it was anticipated that coding would allow for the illumination of participant experiences within the

organization during various phases of system transition. Coding can help highlight participant feelings through the support of interview feedback to support negative or positive feelings or experiences during different phases of transition. Research findings were coded in accordance with anticipated procedures. Coding helped identify and synchronize discovered themes.

Once codes were identified and used to label feedback within the data, they were grouped based on similarity to provide insight into the thematic nature of the operational environment, participant experiences, and corporate culture before, during, and after the system transition. The completion of coding allowed for codes to be grouped, thus forming themes. The grouping or compiling was done to form overarching themes that spoke to the reality or experiences of the participants within the research. These themes were then organized by significance and impact and analyzed for similarity and cause and effect. Themes often weave together to create their own story of organizational occurrences, issues, and concerns. Grayson-Sneed and Smith (2018) highlight that many times, themes overlap to produce a complex webbed problem with various co-dependent elements that create an in-depth systematic, cultural, and habitual interdependent connection to organizational problems that manifest themselves in personnel relations, performance relations, and inconsistent policies and practices. Coding to produce themes helps to break through the various complex layers of organizational operations so each thematic issue can be addressed independently by holistically analyzing how each theme affects the others to understand its contribution and effect on the overarching research problem (Grayson-Sneed & Smith, 2018). Within this research, participant responses were coded in support of research questions. Codes were combined to form themes around employee feelings and experiences concerning policies and procedures, corporate culture and training, and organizational performance before, during, and after ERP system adoption and implementation.

Interpretations

Interpretation focuses on the methods used to review and analyze data from which to draw conclusions based on the data reviewed. Interpretation speaks to the mode of analysis chosen by the researcher to examine and evaluate the data to form a value-added conclusion that provides understanding, causation, or a potential solution to the research problem. The importance of interpretation often surrounds the criticality of taking raw data and formulating meaning to provide conclusive, informative, and value-added information used to research results and conclusions (Stern & Powell, 2022). It allows for informative decision-making based on the narrative feedback from research participants and enables cost-effective decision-making based on feedback from participants on what processes and procedures have been ineffective. Interpretation of data also allows for better foresight on which aspects of a business have been operationally ineffective and which were operationally beneficial. There is a systematic mode of interpretation that includes the organization and sorting of data, the development of themes or findings, allowing themes and findings to evolve into conclusions, and the froming of conclusions derived from data sets to craft a set of recommendation that will adequately address the research problem (Stern & Powell, 2022).

In this research, interpretation was done through narrative data gathered from interviews, surveys, focus groups, and observations. Using qualitative data for interpretation can often mean the use of means and averages or frequency to derive the significance of an occurrence, or the lack thereof. Another aspect of interpretative data is qualitative analysis, including regression analysis, cohort analysis, predictive analysis, prescriptive analysis, conjoint analysis, and cluster analysis (Potocan & Nedelko, 2021). Each form of analysis sorts, groups, and provides specific analysis modes to derive a unique outcome or meaning from narrative data. The use of various

forms of analysis assists in providing meaning to separate groups of narrative data. The analysis creates linkage and support and provides in-depth meaning from solution sets to research problems (Potocan & Nedelko, 2021). In this research, narrative data gathered from interviews was organized, grouped, analyzed, and interpreted to provide an overview of participants' experience with the organization through each phase of the system transition.

Data Representation

Data representation describes the mechanism used to represent, display, or communicate data. Data representation provides a visual and graphical display of qualitative data, making it easily digestible for research readers, with modes of data representation to include pie charts, graphs, pictographs, and frequency tables (Damour, 2022). The purpose of the data often decides which data visualization tool is most suitable to display and convey the message the researcher is seeking to convey. Qualitative data is often segmented into groups and given a representative figure to ease data display (Damour, 2022). Once the data obtains a representative figure, a visualization tool can be used to display the data comprehensively. In the specific research related to ERP system transition, a bar graph was used to depict participant thoughts in the three analysis areas, including organizational performance, corporate culture and training, and policy and process, cross-referenced with participants' thoughts of success either before, during, or after system adoption and implementation, providing a snapshot of the qualitative narrative data collected through participants interviews. A pie chart was best suited to display participant survey results concerning their feelings of organizational optimism during a particular phase of system transition: before, during, or after. Data presentation and visualization tools provided the organization with a snap of the research in an easily comprehendible manner to easily be able to

see loopholes in operation thus extracting areas for improvement moving forward (Po et al., 2020).

Analysis for Triangulation

Triangulation uses various forms of data collection to highlight consistencies in the data collected from different sources and analyze the data to form linkages that support thoughts or themes consisting of diversly collected data (Rooshenas et al., 2019). Triangulation uses survey results, interview responses, and data extracted from the performance system to corroborate, support, and verify that the data pulled was accurate due to the same answer being derived from varied methods of data collection (Noble & Heale, 2019). Triangulation provides validity to research results due to the strength and data saturation involved in proving a theme was present and represented in quantitative metric data, as well as in qualitative narrative responses. Triangulation has the secondary objective to evaluate data sets from diverse modes of collection and uncover *convergence*, where data sets duplicate or overlap; *complementary*, where data sets are similar yet minute different and work to support one another; and *divergence*, where data sets are different and do not draw researchers to the same or a similar conclusion based on the data gathered through differing modes (Rooshenas et al., 2019). Triangulation was used in this research through the analysis of interview question responses, survey results, and performance metrics to study trend analysis and identify slumps and peaks in organizational performance in comparison to pre-system introduction, to evaluate if changes in organizational performance can be linked to changes in corporate culture and training or policies and procedures. These changes were dissected to uncover in which phase of the system transition the decline or improvement occurs, whether it be before, during, or after the system transition. This cross-sectional analysis uncovered if organizational performance was steadfast during each phase of system transitions,

or if peaks and slumps in performance were caused. The tri-fold analysis then linked performance changes to a specific period of transition and evaluated the effect of additional internal factors that could contribute to the change, such as shifts in corporate culture and training or policies and procedures. Triangulation can be both qualitative and quantitative based on the mode or method being used (Noble & Heale, 2019).

Qualitative

Qualitative triangulation is used in qualitative research where non-numerical data is collected to draw inferences and conclusions concerning a specified research problem (Farquhar et al., 2020). Qualitative triangulation encompasses narrative responses that are coded and grouped. Once grouped, themes are derived and a conclusion is drawn that is then triangulated with the conclusive results of other data collection modes that are qualitative. In this research interview responses and survey results were triangulated to uncover points of convergence, complementary, and divergence. It was the prediction of the researcher that corroborated responses and results would provide valid, reliable, and accurate depiction of organizational performance and participant experience within the organization. This anticipated convergence of information provided a trustworthy foundation from which to create and present in-depth, research-backed recommendations and solution sets to organizational leadership on how to address and resolve the specific research problem (Abdalla et al., 2018).

Quantitative

Quantitative triangulation is used in qualitative research where numerical data is collected to draw inferences and conclusions concerning a specified research problem (Farquhar et al., 2020). This type of triangulation leads with the notion that one should follow the numbers which uncovered the truth behind the organizational performance. Quantitative triangulation is

often seen as reliable due to its supposed unbiased approach to research and investigation (Flick, 2018). However, allowing only numerical data sets to convey a message or tell a short often leaves holes in understanding corporate culture and the influence on participants, as well as the availability and support to participate in training and the effectiveness of policies and procedures. Much like qualitative triangulation, quantitative uses numerical data sets derived through various modes from different sources to code and analyze similarities in data to form themes that evolve into conclusions. Quantitative triangulation provides a fact-based approach while excluding the human aspects of business that fills in the blanks between meaning derived from the metrics and enables an organization to operate successfully (Crewswell, 2013). The only quantitative analysis occurring in this research was the analysis of extracted organizational performance metrics from performance systems to support or diverge the conclusions derived from narrative data analysis and qualitative triangulation.

Summary of Data Analysis

In conclusion, a data analysis plan lays out a roadmap outlining how research data will be sorted once gathered, grouped, organized, coded for thematic trends, analyzed, and triangulated for accuracy, validity, and credibility. Having a detailed plan helps ensure all critical components of research are included and provides a solution manual on how to handle emergent ideas as they are uncovered, and how to perform coding to group codes for their creation of them. The plan was crafted to help the researcher interpret themes and use data representation to create visual representations of research results, making them easily understandable to the organization. Triangulation was performed using various data collection modes such as interviews, survey, and data extraction to discover points of convergence and complementary

intersection, thus increasing the validity, credibility, and reliability of the research to form accurate and suitable solutions and recommendations to research problems.

Reliability and Validity

Ensuring the reliability and validity of research mechanisms and research results is the most critical component of conducting research. If methods and considerations are not put in place to ensure personal bias is extracted, and reliability and validity are established, the research and its findings are not credible and thus worthless. Modes must be purposefully incorporated and embedded into the heart of research questions, data collection, data synthesis, and analysis, forming themes from data coding and triangulation to ensure the plan that created research reliability and validity was followed. Bracketing must also be strategically planned for within an overarching research plan to ensure personal bias is taken into consideration during every phase of research execution, making special consideration to avoid and block personal bias from infecting the research work, data collection, or data analysis outcomes.

Reliability.

Reliability within research and research conclusions refers to the ability of readers to know and understand the way data is collected, synthesized, interpreted, and concluded systematically and in a process-oriented way throughout the duration of the research (McDonald et al., 2019). Reliability refers to the stability of data results from qualitative data collection methods. Within a researcher's plan to embed reliability through their research, one must consider and plan for various aspects of reliability including creditability, transferability, dependability, and confirmability (Shafie et al., 2021). Creditability refers to the amount of truth or trustworthiness within the research, which results in the ability of a researcher's findings and recommendations to be seen as true or accurate (Takamichi & Morikawa, 2019). Transferability

looks to draw conclusive similarities through generalization, which provides external validity through correlation with eternal situations and occurrences. Dependability refers to the researcher's ability to document the process to include all research procedures. Lastly, confirmability ensures the data was thoroughly checked and examined to ensure results could easily be repeated and derived from other research (Shafie et al., 2021). To ensure reliability and its various subcompacts, reliability must be built into every aspect of the research plan. Reliability was planned for and intricately woven into every aspect of research through data collection and analysis methods that cannot be refuted, the use of comprehensive data that are compared and tested, and by use of a permanent or consistent mode of recording and sorting data collected.

Validity.

Validity refers to the careful consideration taken to accurately record, verify, and re-verify research responses and findings to ensure information reflected matches the information supplied by research participants (Kasprowicz & Marsden, 2018). Validity helps ensure research is seen as foundational and trustworthy when validity mechanisms are incorporated into each step of the research process from data collection, synthesis, interpretation, and conclusions. Ensuring validity requires the consideration and planning inclusion of bracketing or the intentional separation of personal bias from research findings and results; triangulation or the method used to find points of convergence, complementary information, or divergence with multiple data sets using various data collection modes; and lastly, through data saturation which speaks to the redundancy of exact information extracted from research participants that continued research was not needed (Andrade, 2018). Validity and its corresponding subcomponents can be accounted for within the research through respondent validation.

Respondent validation helped ensure results derived from participants are true and accurate when re-assessed at another time or in another mode of data collection. Triangulation was used to further prove respondent validation as the results from the survey were triangulated with interview responses to ensure participants' responses were congruent when asked similar questions about the same content. The redundancy of respondent validation proved saturation. These mechanisms worked collaboratively to ensure validity was created and maintained throughout each stage and phase of the research plan.

Bracketing.

Bracketing is a critical aspect of research that seeks to ensure the unbiased and valid results of conducted research through the researcher's ability to set aside bias, pre-conceived ideas, thoughts, or knowledge to include personal experiences, religious affiliations, and perceived commitments, thus releasing one's perception of the topic before research to fully accept and embody the results derived through vetted research practices (Janak, 2018). Within this research topic, bracketing was performed in the manner of using a blind survey using an outside entity or researcher who was neutral and perceived to be unbiased to participants. Additional methods were used such as the vetting of interview questions by organizational leadership, as well as avoiding the use of personal questions that are not critically linked to the research topic. Also, as performance information was extracted and filtered from the organization, the research ensured not to filter out data points in support of personal conclusions or patterns of thought. Bracketing can be difficult when a researcher has a passionate position or thought pattern connected to a research topic, yet it is critical for the validity, reliability, and creditability of the work and research being produced (Janak, 2018). The researcher must be particularly mindful to embed bracketing measures into the research method, thus working to

ensure personal bias does not lead to inaccurate and unsupported conclusions drawn from the research solely based on the thoughts and opinions of the researcher.

Summary of Reliability and Validity.

In conclusion, reliability and validity are two of the most critical aspects of the overarching research plan. Reliability refers to the stability of research results and houses subcomponents including credibility, transferability, dependability, and confirmability. This researched plan has been fully documented addressing all comments of research execution and consideration to ensure the elimination of bias and the effective use of all qualitative tools to ensure research was trustworthy, had external correlations, had a fully documented process, and thus could be duplicated with similar research findings. Validity refers to the careful consideration taken to ensure participants' responses are captured accurately. Validity also has several sub-components including bracketing, triangulation, and saturation. In this research, the forementioned elements worked together to ensure the separation of personal bias, the correlation and corroboration of multiple data sets to relay the same message, and the frequency and consistency of the data set so that no further research was needed. Reliability, validity, and removing personal bias through bracketing ensure the research process, findings, conclusions, and recommendations are unrefutably substantiating to provide a solution set to the research problem.

Ethical Assurances Plan

An ethical assurance plans seeks to ensure business ethics are applied to business operations (Tolich, 2020). This plan assures ethics were a priority and upheld during each of the research phases. Ethical tactics and tools have been consistently incorporated to ensure ethical awareness was at the forefront of the research. To assure ethical assurance, bracketing was used

during each component of the research project to ensure personal bias did not affect research techniques or results. Additional ethical considerations were made, such as ensuring no participant was harmed during the execution of research. This was done by ensuring participation was voluntary and consent was obtained prior to beginning the research. The actual interviews and surveys were done in environments free of pressure or pursuance. Each participant's dignity and respect were of the uttermost importance; thus, if a participant was not comfortable answering a question, they were not forced to do so. Lastly, participant's privacy was critical due to their safety and to prevent any retaliation. Thus, participants responses and results were kept safe in a locked file cabinet and all information shared was regarded as confidential. This ethical assurance plan sought to ensure the research was conducted in a manner that was ethical and did not encroach upon participant's rights to privacy, respect, or fair and just treatment.

Summary of Section 2 and Transition

This research project included discussion of the purpose of the research, the role of the researcher, research methodology, a discussion on participants, population and sampling, data collection and organization, data analysis, and lastly reliability and validity. This methodology provided an overarching plan of how the research project was conducted to investigate and further understand how organizational preparedness can ensure the successful adoption and implementation of ERP systems. The purpose of this research study was to explore why organizations lack the preparedness required to effectively adopt and implement integrated enterprise resource systems. Within that purpose, the researcher played a pivotal role in conducting the research and extracting information from the organization to organize and sort data in a manner that provides a complete picture of the organization, its performance, and potential gaps in processes, procedures, performance, training, and corporate culture. A flexible

design was used to accommodate shifts and changes in the research method as critical new ideas, themes, or concepts emerged. A single case study was used, with participants comprised of 22% of the organizational workforce, to extract participant data about their experience with the organization's performance, corporate culture, and policies before, during, and after the system transition. The researcher took specified steps to gather information including disseminating surveys; conducting interviews; analyzing organizational processes, procedures, and guidelines; and extracting performance data from organizational databases and archives. Data derived from interviews, surveys, and organizational performance was organized, sorted, analyzed, and triangulated to see intersections of alignment from which research conclusions were drawn. It was found that linkage and themes surrounding organizational preparedness concerning performance, corporate culture, and policies had a direct correlation to continue if not improve performance seen through uninterrupted supply chains and a maintained or improved profit margin. These conclusions were used to provide recommendations to stakeholders based on triangulated data from the research.

There was a special emphasis on reliability, validity, and removing personal bias through bracketing to ensure the research process, findings, conclusions, and recommendations were unrefutable and substantiating to provide a solution set to the research problem. Ethical assurance was incorporated in every aspect of research to ensure ethical behavior was upheld and maintained. This outlined methodology helped research execution to be done in a precise and easily duplicated manner. Understanding the various components of the project, and creating a plan to execute each, ensured the project was performed in a manner that was valid, reliable, creditable, transferable, and confirmable. This research and its findings provide a verified plan and path for the business arena when considering the adoption of a new ERP system. The

research findings, conclusions, and recommendations exemplify the importance of executing organizational preparedness, the most critical organizational components to address, and the effect preparing a company for ERP system adoption and implementation has on its supply chain and the decrease in potential disruptions and while seeking to maintain if not improve the organization's profit margin.

Section 1 outlined the conceptual framework in detail and the plan of how the research project would be executed. Section 2 provided insight on research participants and the data collection process to include the use of tools such as surveys and interviews. Section 3 describes the research project and its actual execution in detail. Performance metrics were also extract from the performance system for data triangulation and to provide further validation on discovered themes. From the extrapolated data and derived themes, solution sets and recommendations for further research were solidified as biblical perspective and general business use of the research were outlined.

Section 3: Application to Professional Practice and Implications for Change

Research projects are designed and executed to bring insight and a potential solution to a specific research problem. Research questions surrounding the core problem are crafted to provide direction during the research process and to give depth to the initial research problem. Research often surrounds a phenomenon, situation, or group of people. To investigate the research problem and answer the research questions, a structured process is used which includes a paradigm, design, and method and outlines the research using a conceptual framework. This research project seeks to investigate enterprise resource planning systems. Using a constructivism paradigm, flexible design, and single case study method, the research project was conducted to discover best practices organizations can use as a guideline when preparing the organization for system transition before system adoption and implementation.

Overview of the Study

Enterprise resource planning (ERP) systems are fully integrated SAP systems that provide synchronization, collaboration, and organizational alignment of company departments, departmental tasks, information repositories, and process configuration with external partners. ERP systems aid in planning, forecasting, distribution, and customer retention through a holistic perspective of organizational wellness. Through the synchronization of organizational efforts, pertinent information is shared between departments, processes are streamlined and seek to be accomplished with the least amount of resources and steps possible, and system benefits are actualized through increased profit margins and decreases in supply chain disruptions through alignment with external partners. Though ERP systems are extremely beneficial, their adoption and implementation into organizations can be cumbersome as there is currently no identified

step-by-step guide or preface available on best practices for adopting and implementing ERP systems.

Using a constructivism paradigm aligned with a flexible design that allows for use of new and pertinent information as it arises to be implemented within single case study research, a conceptual framework has been crafted to answer pertinent research questions. Such questions seek to provide insight and perspective into the general problem to be addressed: the potential lack of organizational preparedness required to effectively adopt and implement integrated enterprise resource systems, resulting in an increase in supply chain distruptions and a decrease in profitability. The results derived were constructed from the completion of surveys, interviews, and performance metric extractions that were then coded, grouped, and analyzed to derive themes and interpret those themes to craft solution sets and answer research questions while drawing key conclusions provided by the research. The singular key highlight from the search results, which were triangulated for validity and reliable support, is the initial problem statement and purpose of the research that strongly suggests the most critical aspect of adopting and implementing ERP systems is the preparation of an organization to include its people, process, procedures, and policies.

Presentation of the Findings

The research plan was executed within one week. At the beginning of the week the workforce was polled for research volunteers, and the volunteers agreed and signed consent forms. On the selected research execution day, volunteers received a two-question survey. Upon completion of the survey, participants participated in a one-on-one, secluded interview. Interviews were conducted with 10 minute breaks in between for a total of 15 interviews. It was important to conduct all interviews on the same day to ensure the environment or the ability of

participants to confer with one another was not possible by spreading the interviews to multiple days. Note-taking and memoing were the tools used to document interview feedback and responses. Member checking was performed after interviews to ensure participants' responses were indeed the message or answer they intended to provide. On the same day, organizational performance was pulled that covered 18 months, including the period of organizational performance before, during, and after organizational adoption and implementation of the enterprise resource planning system. As information was shared, collected, coded, and categorized, themes both anticipated and discovered were analyzed as the interpretation of such themes was necessary to adequately understand, draw conclusions, and craft data presentations and visualizations that would assist in conveying the relationships of the results to the greater operational environment and proposed problem. Research findings were then analyzed against key areas within the research proposal, which further interconnected all elements of the research, research findings, and derived conclusions or solution sets to the initial problem.

Themes Discovered

Upon the conclusion of all 15 interviews, as well as the collection of survey responses and performance data, theme analysis was conducted. Notes and memos from interviews were analyzed for repeating trends or like answers. Coding was manually performed throughout the interview and upon conclusion as interview feedback was analyzed, sorted, organized, and clustered for theme identification and interpretation. Coding made the discovery of themes simple and clear as participant feedback fell into very distinct categories. The researcher thoroughly studied survey results, interview feedback, and organization performance metrics to derive persistent and congruent themes used for triangulation as a method to strengthen the validity of research findings.

Resistance to Change

Throughout the duration of the interview sessions, there were varying types of answers given. The participants ranged from hourly employees, middle management, and senior management. Though different answers were given, they seemed to fit into categories, thus introducing reoccurring themes. One theme that arose was the resistance to change from employees. Participant 3 stated, "My workday was good, I knew the process and processes work, there is no need to change how we work, we get out work done." Participant 7 stated, "You only need change when the system is broken, nothing is broken, we know the work and complete it daily." Middle management seemed to echo the same sentiment, which can be identified with Participant 13's statement: "Upper management always wants to change things, they are never satisfied even when we need metrics." The coagulation of statements by participants identified the consistent idea or theme that the organization nearly entirely shared a common disdain for organizational change. The anticipated theme of the workforce being resistant to change led to the discovery of employees feeling hesitant to change. Concerning the adoption and implementation of an ERP System, the resistance to new and emerging policies to accompany a new ERP system and the suspected change in corporate culture due to new operating procedures were proven to be accurate and valid and were verified through participant feedback and analysis.

Lack of Organizational Preparation

Another discovered theme was that employees felt the organization was not properly prepared for the change. This theme manifested in coagulated responses related to the organization, the personnel, the policies, procedures, and even training tools that were not updated and aligned with the new ERP system's operation mode. Of the nine hourly employee

participants interviewed, only one participant, Participant 8, felt the organization was slightly prepared, echoed in their response, “I knew things would change, I told us the policies would change but dang I don't think the warning helped at all.” In the same way, senior management was split on their feedback. Participant 15, a senior manager echoed similar sentiments, “I thought we were prepared. We held many IPTs to address what would change and how, I could have sworn middle management had briefed the hourlies but we didn’t go through things as thoroughly as we should have, we really messed up there.” These two participants were the only participants who felt the organization even remotely prepared the employees at each level for the transitions. Other participants highlighted the lack of preparation by the organization concerning policies, procedures, and processes. Participant 11 discussed the need as unnecessary and problematic by saying, “The change was annoying and unnecessary, we were doing fine. Why change things and just say everything will be the same, nothing will change just a few things, but we will see as problems arise. They were wrong. Everything changed and we were not prepared or prepped at all.” This feedback was from middle management as multiple participants at this level mentioned feelings stuck in the middle because they were not equipped with valid information or insight to give hourly employees, nor did they know what to do themselves. Participant 10 expressed, “The hourlies keep asking questions and I didn’t have any answers myself, so I didn't know what to say. No prep, no organizational planning that I was invited to, and no layout of the new system, I just hated being stuck in the middle. I almost wanted to tell the hourlies; I don't know ask upper management, but I know I couldn't do that.”

Decreased Organizational Morale

A third discovered theme was the collective sense of decreased morale among organizations employees. This dissatisfaction was echoed at every level of employment but was

conveyed from a different perspective. Senior management conveyed a lack of morale due to the decrease in profit margins and organizational performance from the time of system adoption and implementation to the present day. Senior management was hopeful ERP system adoption and implementation would increase profit margins and decrease supply chain interruptions, yet such performance had not been seen by the system or the organization. Participant 14 echoed such sentiments from the perspective of senior management by saying, “It didn’t perform as we anticipated which dampened our outlook on the system and organizational performance in the coming quarters or even years.” Performance metrics displayed the downward spiral of performance in terms of quantities distributed within the allotted time as prescribed by organizational standard operating procedures. Such metrics were expected to decrease yet indeed increased. Performance metrics concerning profit margins as commodities were not distributed accurately or in a timely manner per internal audits conducted manually and by the system.

Middle managers experienced low morale as they were used to functioning as the subject matter experts for hourly employees. With the adoption and implementation of the new system, due to the lack of preparation or training, middle managers felt lost and without answers or solutions for hourly employees. Participant 12 described their perspective, “I was lost, I didn't know how to work the new system, so I was unable to show the hourlies. In legacy, I knew how to ensure my team performed and exceeded metrics but not knowing how to work the new system or direct my team made the job stressful. The work environment was horrible.” Hourly employees also felt they were working without any direction or insight into how processes should go or flow. Participant 9 stated, “I hated the change because of what it did to the workplace, I used to love to come here and love to work with the team, but after the new system we didn't show the accurate inputs or system processes, so we were unable to do our jobs,

everything was different, and we were lost." This statement was echoed through many responses obtained from hourly employees; their morale was low due to a lack of process and procedural knowledge, and they felt ill-equipped to do their job.

Lack of Employee Buy-in Relating to System Operations and Benefits

The last discovered theme was how reluctant the workforce was to accept and believe in the ERP system and its operational ability to make the company better from a holistic standpoint moving forward. This opinion base was split between those who believed in the system and its ability and those who may have believed the system was capable but felt its adoption and implementation brought more confusion than benefits. Senior management believed that as more familiarity and training with the system occurred the organization would perform better, resulting in increased profit margins. Middle managers were very reluctant to accept the new system but were slowly growing more adaptable to its abilities as they learned about system configurations and benefits; they just believed it would be a long learning curve to full performance. Participant 10 stated, "When we first got the system hourlies asked questions, I didn't have the answer to, but the more I work with the system and obtain training from system vendors I can be able to see how the system can assist with our work task and I can answer my team's questions. I am more confident in the system, much more than I was initially." The response from hourly employees was less optimistic than middle and senior management, which created the organizational split on this theme. Hourly employees remained suspicious of the new system as they still had not received comprehensive training on the system; thus, they had little insight into its abilities and benefits. Participant 1 stated, "I still don't see how the system is going to make my job easier or better." Participant 5 echoed similar feelings, "I'm just not sure this was the right thing, I don't think this system is going to do what the uppers want it to." In his

way, other hourly participants shared negative sentiments about the system meeting or exceeding organizational standards and meeting senior management expectations.

Interpretation of the Themes

The identification of themes is a critical component in understanding research findings and is often the first step to composing solution sets for ongoing and underlying organizational issues. The second step, after themes are identified, is their interpretation. This is also a critical component that assigns meaning and prescribes a level of importance to each identified theme. Interpreting the theme provides insight into how the theme manifests itself within the operating environment. Interpreting themes provides a foundation for the creation of solution sets to address the problem and provide causation for the purpose. Two methods can be used within the interpretation of themes, including qualitative and quantitative techniques.

Qualitative

Interpreting themes is often performed through triangulation to provide depth to linkage to participant responses. Qualitative triangulation is used in qualitative research where non-numerical data is collected to draw inferences and conclusions concerning a specified research problem (Farquhar et al., 2020). Qualitative triangulation encompasses narrative responses that are coded and grouped. Once grouped, themes are derived and a conclusion is drawn that is then triangulated with the conclusive results of other data collection modes that are qualitative. The first identified theme was the resounding resistance to change from employees. This is a commonly identified theme that speaks to employees' unwillingness to see, understand, or perform processes or procedures differently. Often, even if the change will work for the benefit of the employee, the thought of moving from one's comfort zone to learn or understand a process or application in a new way brings feelings of anxiety and thoughts of resistance. The second

theme was about the employees feeling as though organizational leadership did not prepare the organization's people, processes, policies, or training to accommodate the upcoming change. This theme was interpreted as employees not feeling they received the proper notice, support, or guidance to brace themselves mentally, their physical workload, or their expected performance metrics to align with the upcoming organizational change. Interpreting this theme and fully understanding how it affected employees from a holistic perspective was a critical component of research findings. Employee perception is a top priority that affects the organizational operating environment and the overall performance of the organization. The third theme highlighted employee feelings of decreased morale. This theme required interpretation to be useful feedback within solution sets. Per memos crafted during interviews, this theme refered to the lack of morale as a culminating effect of the other themes, including the resistance to change and the lack of support or direction during the system adoption and implementation. Understanding the perceived lack of morale was critical when seeking to pinpoint modes and methods applicable for increasing organizational morale and thus improve the overall performance and working environment of the organization. Once a root cause of low morale is prescribed via theme interpretation, suitable solution sets can be crafted and implemented. The last theme associated with the lack of faith or belief in the new ERP system was interpreted as a combination of employees being resistant to change and the lack of proven results from the ERP system concerning organizational performance. This theme was interpreted as the organization's lack of demonstrated system performance and benefits to its employees. It seems the organization did not work to gain employee buy-in before or during system adoption or implementation; thus, many employees lacked faith in the system's ability to increase or improve organizational performance or make their work tasks and assignments more simplistic. The discovery of

qualitative themes was derived from the coding of participant responses and then grouping those responses by likeness to identify commonly held themes. Understanding each discovered theme and the interpretation of the theme aided the researcher in understanding the undertone of the organizational operating environment and assisted the researcher in crafting solution sets to research issues that holistically and all-encompassingly address organizational issues.

Quantitative

Quantitative triangulation is used in qualitative research where numerical data is collected to draw inferences and conclusions concerning a specified research problem (Farquhar et al., 2020). This type of triangulation leads with the notion that one should follow the numbers, which will uncover the truth behind the organizational performance. Quantitative triangulation is often seen as reliable due to its supposed unbiased approach to research and investigation (Flick, 2018). Quantitative triangulation was performed within the research through the analysis of extracted organizational performance metrics from performance systems over 18 months of performance to support or diverge the conclusions derived from narrative data analysis and qualitative triangulation. The hypothesized thesis to be determined is a decline in organizational performance in system phases during and after system adoption and implementation due to a lack of organizational preparedness before the adoption and implementation of ERP systems. The identified theme analyzed quantitative metrics where there was a noticeable slump in performance standards and metrics in months 7–18 of the 18-month performance metric. Months 7–12 were the lowest for the organization in terms of production, meeting performance standards, and distribution metrics. Months 13–18 displayed a slow increase in all three areas, yet performance has not yet resumed to pre-system adoption and implementation standards. In seeking to prove a lack in the system and organizational performance during and after system

adoption and implementation, it is critical to use quantitative triangulation because it provides a fact-based approach while excluding the human aspects of business that fills in the blanks between meaning derived from the metrics and enable an organization to operate successfully (Crewswell, 2013). Quantitative metrics proved the hypothesis to be true.

Representation and Visualization of the Data

Representing and visually displaying data provides ease of understanding and analysis concerning research findings and theme identification and interpretation. Below are graphical representations of pertinent research themes regarding participant demographics, and research findings concerning employee satisfaction and organizational morale before, during, and after system adoption and implementation. Figure 2 is a visual presentation that depicts the breakdown of participants based on employment level: hourly employee, middle management, and senior management. Of the 15 participants, 60% were hourly employees, 2.6% were middle managers, and 1.3% were senior managers. Figure 3 depicts employee satisfaction and employee morale based on interview responses that were code, group, and theme derived and coagulated to conduct trends analysis. It can be seen that all groups of employees including hourly employees, middle managers, and senior managers all responded to interview questions by saying they possessed greater employee satisfaction and concurred organizational morale was higher before system adoption and implementation. All three employee groups responded with an obvious steep decline during system adoption and implementation. As performance periods passed, all three employee groups expressed an increase in organizational morale and employee satisfaction at different percentages. Senior managers responded with a 50% improvement in employee satisfaction, middle managers a 30% increase, and hourly employees experienced a 10% increase in morale moving from during system adoption and implementation to the after phase.

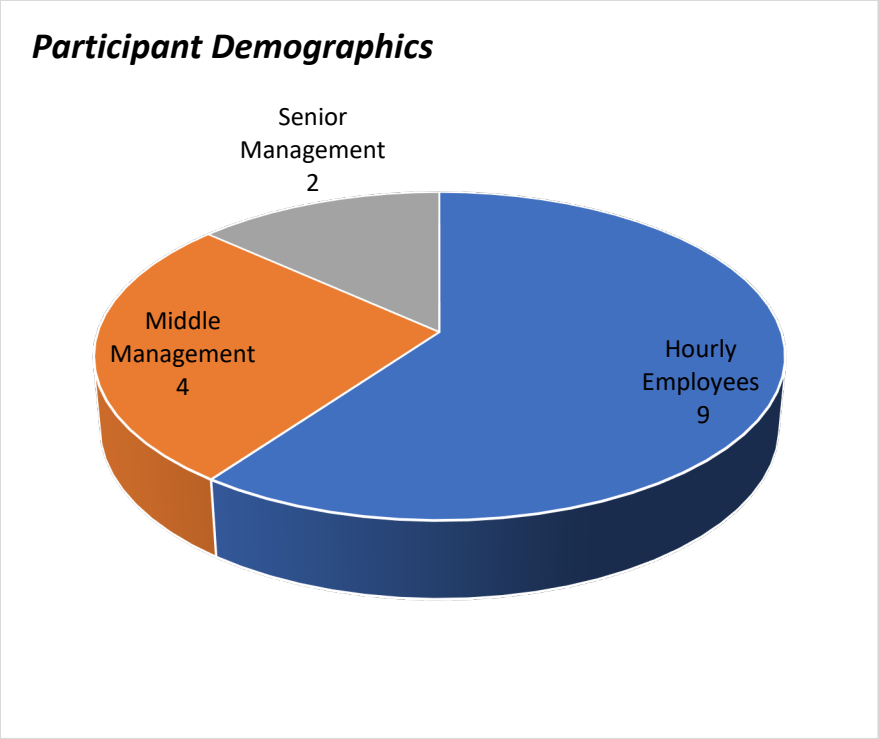

Figure 2. Participant demographics.

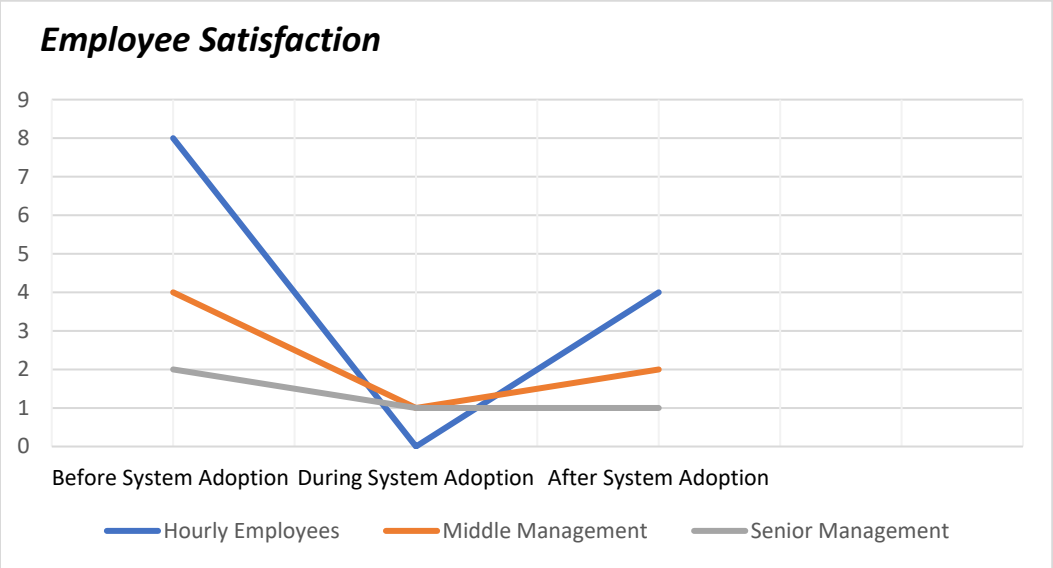

Figure 3. Employee satisfaction.

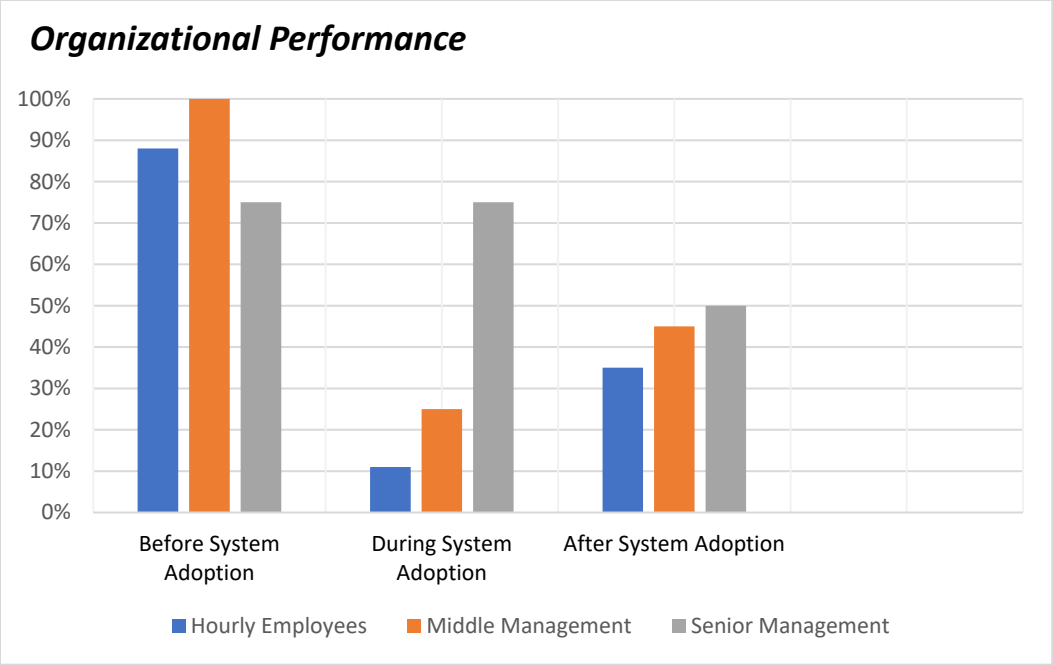

Figure 4. Organizational performance.

Table three is a graphical representation that depicts organizational performance from the perspective of each employee group during each phase of system adoption and implementation. It can be summarized that each group's feedback on questions concerning organizational performance was significantly high, between 75–100%. During system adoption, hourly employees and middle managers' thoughts on system performance dropped significantly while senior managers' feedback surrounding organizational performance remained consistent. It can be seen that after system adoption all employee groups provided feedback surrounding organizational performance between 35–50%. This rating is down for senior managers whose rated performance at 75% during system adoption and implementation, down to 50% after system adoption and implementation. Participant feedback is congruent with quantitative metrics derived from performance standards analyzed over the 18 months before, during, and after the performance period.

Relationship of the Findings

The research proposal was comprised of components interconnected to each aspect of the research and its findings. Research findings directly correlated to how the research was comprised, and the prescribed insight derived from various research proposal components. Research findings were the primary outcome of the research project. Findings also provided insight and applicability on what the research suggests. The identification, interpretation, and correlation of research findings provided information and insights on what the research indicated and what indicators should be contrived or understood from the research. Investigating the relationship between the research findings provided soluble outcomes and solutions the organization can use to address and correct organizational issues. Below, each research component will relate research findings to key areas within the research proposal to examine how research findings fulfill those topics. The key areas for consideration include research questions, conceptual framework, anticipated themes, the literature, and the problem.

The Research Questions

A case study is used within a research project to study a person, group, or organization to study a specific topic, analyze happenings, and derive conclusions. Within a case study, specific research questions aid in guiding the study and pinpointing specific areas of interest. Methodological triangulation allows for the use of various information sources and modes of information collection to draw connections and links to further explain a research topic or answer research questions. The data or information for the research is then corroborated to provide a more complete and credible view of the research topic and solution set to answer the research questions. The findings then provide answers to research questions and provide insight into how organizational preparedness before ERP system adoption and implementation can help

organizations avoid an increase in supply chain distributions and a decrease in profitability. Research questions specifically addressed four critical areas: how organizations can successfully adopt and implement enterprise resource planning systems, how organizations' successful adoption and implementation of enterprise resource systems can improve and streamline supply chain management operations, how organizational preparedness during the adoption and implementation of integrated enterprise resource systems can ensure organizational durability and longevity, and how the lack of organizational preparedness contributes to or results in a reduction in profitability.

RQ1. The first research question sought to understand how an organization could successfully adopt and implement an enterprise resource system**.** The question was coupled with an affirmative sub-question: What actions and behaviors contribute to an organization's ability to successfully adopt and implement integrated enterprise resource systems? This question also had a negative sub-question: What actions and behaviors contribute to an organization's inability to adopt and implement integrated enterprise resource systems? Question 1 was initially crafted to deep dive into the necessary components required to adopt and implement enterprise resource systems in a manner that produces positive effects on business processes, business personnel, and business profits. This question's answer would then provide an initial guide to how organizations can implement ERP systems. Research findings from interviews, surveys, and performance data were inconclusive in providing an explicit answer to this question; however, the feedback provides insight into the second sub-question relating to what actions and behaviors contribute to an organization not being able to adopt and implement ERP system in a manner that produces positive organizational results. Research findings alluded to negative feelings and low morale derived from the organization's leadership and their inability to properly prepare the

organization as a whole and the workforce for the organizational change by addressing components of the operating environment that would change or be affected. It can be seen from the negative feedback concerning preparation that to successfully implement an enterprise resource planning system, the organization must employ a holistic approach to specifically and adequately analyze components within the organization, including its people, processes, procedures, policies, and training that will be affected by the change, and seek to craft organizational change plans to address anticipated needs, concerns, and shifts within the organization's day to day operating sphere.

RQ2. The second research question sought to determine what actions and behaviors contributed to the improvement and streamlining of supply chain management operations through successful system adoption and implementation. The question was coupled with an affirmative sub-question: What actions and behaviors contribute to the improvement and streamlining of supply chain management operations through a successful system adoption and implementation? Question 2 also had a negative sub-question: What actions and behaviors prevent the improvement and streamlining of supply chain management operations through a successful system adoption and implementation? Question 2 sought to investigate the improvement and streamlining of the supply chain management operations and the ERP system's contribution to this effort. Research findings discovered that due to a lack of faith or belief in the new ERP system, in part due to un-demonstrated beneficial performance, employees do not believe the system has been beneficial to the overall organizational performance or the streamlining of their work tasks. Employees' inability to see the benefits of the new system inhibited the research findings from contributing to how the system can improve and streamline supply chain management operations. The first subquestion could not adequately be addressed because, based on research findings, the supply

chain management operation did not improve and was not streamlined because of the ERP system or during any phase of system adoption and implementation including before, during, or after. Research findings did provide insight and information closely linked to the second sub-question, referencing behaviors that prevent supply chain management operations streamlining and improvement. The research findings highlighted actions and behaviors that would take away from the desired improvement and streamlining of supply chain management operations, including not properly seeking or garnering employee buy-in or demonstrating the organizational benefits and streamlining abilities of the new ERP system. This could be seen in participants' feedback to interview questions related to their resistance to accepting the system, using the system, and their lack of belief in the system's abilities. Because they did not believe in the system, participants did not fully seek to learn, query, and use the system as a primary and critical component of daily tasks to fully recognize and realize system effects and benefits. Participant 10 provided feedback concerning this topic, "The system probably doesn't do what senior management wants because we haven't gotten training on this level to know how to operate the system, so, of course, I can't answer hourly questions, nor can I perform my task fully on this system so it can benefit our supply chain." Participant 15 stated, "This system was advertised as a way to improve our supply chain, perhaps we can hire an accessor to see if we are sufficiently and accurately operating the system, I suppose that could contribute to the lack of anticipated streamlining in processes and throughput time." Research findings provided insight from middle and senior management on behaviors and actions that prevent the adoption of an ERP system from streamlining and improving supply chain management operations, including lack of preparation, lack of training, and lack of employee buy-in on organizational change and system benefits.

RQ3. The third research question sought to address the effect of organizational preparedness and its ability to ensure organizational durability and longevity through the adoption and implementation of enterprise resource planning systems. This question was coupled with an affirmative sub-question: What actions and behaviors contribute to an organization's ability to ensure durability and longevity during the adoption and implementation of integrated enterprise resource systems? Question 3 also contained a negative sub-question: What actions and behaviors contribute to an organization's inability to ensure durability and longevity during the adoption and implementation of integrated enterprise resource systems? This question sought to investigate and understand how organizational preparedness in adopting and implementing an ERP system positively affects organizational durability and longevity. As mentioned above, research findings discovered the organization was not adequately prepared for ERP system adoption or implementation. This research conclusion centered around the lack of organizational preparedness derived from research findings and participant responses, all triangulated for validity. As discovered through performance metrics and consistent participant feedback, there was no positive effect discovered through the research findings on durability and longevity. This was concluded as metrics for the ability to withstand catastrophe were not able to be measured due to the lack of inconsequential circumstances. Since the organization did not collapse during system adoption and implementation, it can be concluded that the organization already possessed at least a partially durable and tenacious operating system. Due to the period of surveillance and analysis only being 18 months, longevity, or an extreme change in the ERP system's ability to strengthen or weaken organizational longevity, could not be an adequate measure as no significant change in metrics related to longevity where noticed. There was participant feedback centered around "We can't go on like this, the organization will not make its performance with this system how we are not," as

stated by Participant 2. The research findings did not contain the ability to convey through experience or evidence how the adoption and implementation of the ERP system improved the durability and longevity of the organizational operating environment.

RQ4. Lastly, the fourth research question was intended to address the effect that lack of organizational preparedness had on the organization's profits. The research findings very specifically and in detail displayed the reduction in profit margin following the adoption and implementation of the ERP system. This slump in profit can be attributed to the new system and the organization's inability to align new processes, procedures, policies, and training in place to adequately address and accommodate the upcoming system changes. Participants cohobated performance metrics through their testimonies and feedback concerning perceived slumps in productivity, business processes, and the organization's ability to meet production, shipping, and distribution deadlines. This slump conclusively links with large slumps in organizational performance metrics. Such slumps were felt in the company,s profit margin, which plummeted. This slump in profitability, based on triangulated research findings, can be derived from little attention being given to personnel grievances about the new system and their operational needs as it relates to completing daily tasks, which pinpoints itself as the culprit in identifying how the lack of organizational preparedness has indeed negatively affected the organization's profits.

The Conceptual Framework

The conceptual framework describes and displays the big picture of the problem. Associated inputs and outputs to the problem further illustrate the effects of the problem. The research framework also displays how the actor's actions influence the problem and how information flows throughout the potential problem through the various problem components. Such problem components include constructs, theories, concepts, and variables, all contributing

to or affecting the problem in various ways. The framework provides a high-level view of how each component specifically influences the problem. This bird's eye view allows readers a clearer picture of the research and how to best understand the problem's intricacies.

Research findings confirmed leadership's role, responsibility, and influence upon constructs and highlighted associated theories at work within the operating environment such as dialogical self theory, Maslow's hierarchy of needs, and transformational leadership, or the lack thereof, as highlighted by the findings. Mental and organizational concepts proved to be a component of the routine corporate culture and norms within the organization as discovered by the research findings. These prevalent concepts affected the potential problem within the research framework. Outputs related to the lack of transformational leadership associated with prevalent workplace concepts influencing a specific and real problem resulted in a decrease in productivity as displayed by organizational performance metrics, as well as low morale and deflated employee satisfaction which has led to supply chain disruptions, reduction in profit margins (analyzed from performance metrics), which over time will ultimately result as a critical consequence to the organization and manifest as a reduction in durability and longevity. Several components of the conceptual framework were critically important to the research findings by providing concurrence and explicit applicability for solution sets to the research problem; these components included construct, concepts, and variables.

Constructs. The first component of the conceptual framework is the constructs which work as theoretical ideas within the research that are based on observation. The primary construct within this conceptual framework was leadership style. Leadership style often dictates the way an organization or a group of people is run. Within this research, specific questions about the organization's leadership style were not explicitly asked; however, participants'

responses to interview questions provided insight into the type of leadership present within the organization. Understanding varied leadership styles, along with their suitability and applicability, enables a leader to choose a style most conducive to themselves, the situation, and the audience. Critical situations call for a different leadership style than a group of employees performing routine and safe tasks might require. During periods of transition and change, a specific leadership style is needed to direct, uplift, and inspire when uncertainty looms.

Within the research findings, hourly employees and middle management spoke about the lack of instruction or guidance immediately before, during, and partially after system adoption and implementation. This lack of guidance and directions speaks directly to the leadership style currently in place and highlights the need for a more involved, knowledgeable, concerned, and proactive form of leadership. Though not directly mentioned, this need can be concluded from participants' statements such as, "They barely told us anything," as said by Participant 4, or "I didn't know what to tell the hourlies about how we should move forward," as said Participant 11. These responses highlight that was no firm source of leadership to guide personnel, policies, and procedures during this time uncertainty and change. It appears a laissez-faire form of leadership was in place, very lackadaisical and go with the flow. During a tumultuous time of system adoption, implementation, and change, transformational leadership would have been most appropriate. This can be inferred from participants' feedback that employees and various levels desperately needed a leader to strongly take control, provide accurate and pertinent information, and provide a roadmap on how the organization, from a holistic stance, would adjust, relearn, upskill, and align new process and procedures while training personnel to adequately use the system to perform and improve their daily work tasks. When asked about the various phases of system adoption, Participant 5 said, "We just needed a leader, we just needed someone who

knew what was going on." Research findings support and concur with the importance and critical nature of the leadership construct.

Concepts. Concepts are thoughts and ideas generated from the compilation of ideas or by the generalization of facts or occurrences. Concepts derived from the conceptual framework were studied as sub-themes throughout the research execution. Concepts studied within the conceptual framework of the research included 'by failing to prepare, you lack the preparation needed for effective system implementation;' 'prepared organizations input accurate data into implemented systems, thus systems output accurate data;' and 'organizational preparation helps ensure durability and longevity, resulting in decreased supply chain disruptions and profitability increases.' These concepts directly aligned with research findings and discovered themes.

By Failing to Prepare, You Lack the Preparation Needed for Effective System Implementation. Interview responses and feedback provided insight into what can be concluded as the lack of organizational preparation for the adoption and implementation of an ERP system. This conclusion was drawn from direct participant responses such as, "We received very little prior notice and we definitely did not receive any training or explanation of how things would work in advance," as stated by Participant 8. Based on conclusive results of and analysis of performance metrics, after coding and grouping participant feedback, triangulated data shows the ERP system did not perform as anticipated due to a lack of organizational preparation specifically aligned to personnel and processes. It can be seen the primary error made by the organization's leadership was their inability to adequately prepare the organization for transition concerning primary operational components. Research findings directly concurred with this conceptual framework concept.

Prepared Organizations Input Accurate Data into Implemented Systems, Thus Systems Output Accurate Data. This concepts elucidates how ERP systems performing according to expectation is based on the operator's knowledge of system functions and the input of accurate and timely data and information. Operating with the assumption that the ERP system operates correctly leaves two potentially problematic components including operator error or inaccurate data inputs into implemented systems. To provide quality control for both elements, continual training and system auditing are required. Within the research, participant feedback noted a lack of training or operational system knowledge, so employees were unaware of how to accurately operate the system. This lack of operational knowledge inhibited employees from accurately inputting or functioning the system, which led to inaccurate and faulty outputs. Without knowing how to operate the system, employees not only had no working of system queries, but they also did know what information should go in what portal to produce the anticipated results. Participant feedback and a lapse in system performance were concurred through research findings, including interview responses and a decline in performance and productivity. Participant 1 stated, "I just wish we were trained on the system." This desire to simply know how to operate the system and know what information to input is reflected in the decreased profit margin, which is linked to decreased productivity, which is a result of faulty system outputs due to a lack of employee operational knowledge. Research findings concurred with this conceptual framework concept.

Organizational Preparation Helps Ensure Durability and Longevity, Resulting in Decreased Supply Chain Disruptions and Profitability Increases. The concept that organizational preparation before the adoption and implementation of ERPS systems helps create, maintain, and improve durability and longevity within organizations, which works to

decrease supply chain disruptions and increase profitability, is an undertone confirmed through participant responses surrounding actions the company failed to perform. Participant responses concluded that the organization experienced supply chain disruptions, seen in the lack and slump in productivity. It can also be seen in performance metric reports that profitability decreased during and after system adoption and implementation. According to participant responses, there was little to no organizational preparation employees could see; thus, it can be concluded there was no apparent preparation. During the research, a decrease in productivity and profit was discovered; thus, information can be triangulated to conclude the lack of preparation did not create, maintain, or improved durability and longevity. Research findings analyzed 18 months of company activity; due to the condensed period, longevity could not sufficiently be measured. Research findings concurred with this research conceptual framework concept in the non-affirmative.

Variables. Within research, variables are the people, groups, organizations, or happenings the research seeks to measure using some method or mode. This research sought to uncover the effects of the potential lack of organizational preparedness on employee satisfaction and productivity when adopting and implementing an ERP system,. Within this research, employee satisfaction and productivity served as variables the researcher sought to measure as a means of better understanding and quantifying the importance and criticality of organizational preparedness. Understanding how the occurrence of adopting a new ERP system affected employee satisfaction and organizational productivity, which stretches to the organization's bottom line, offered a rich perspective to touchpoints organizations can ensure are assessed when planning future system adoption and implementation.

Employee Satisfaction. Based on participant feedback as displayed by Figure 3, before ERP system adoption and implementation, employee satisfaction was high-scoring. On average, 90% of employees were satisfied with their role and operational environment, which produced high organizational morale. Employee satisfaction was gauged by feedback from participant interviews. It was gauged at periods before, during, and after system adoption and implementation. Responses were coded based on employment level whether participants were hourly employees, middle management, or senior management. Feedback was then sorted by operational phase and comment type. From the feedback received, employee satisfaction was analyzed, and Figure 3 was derived. Participants at all levels of employment recorded being satisfied with their work experience before system adoption and implementation. During system adoption and implementation, employee satisfaction within each employee sector plummeted. Participant 12 reported, "I did not enjoy working here while we were implementing the system." Participant 4 said, "I wanted to quit, to be honest, it was too much change without direction." Participant 14 said, "Adopting this ERP system did not go as anticipated, those were some hard days accompanied by hard decisions to be made." Through the analysis of participant feedback and triangulated information via performance metrics, this slump in employee satisfaction can be directly tied to a lack of leadership, a lack of training, a lack of functional knowledge, and a lack of applicable policies and procedures. Curently, as benefits of the system are being realized and middle managers are acquiring training they can share with hourly employees, employee morale is slowly rising as employees at all levels are becoming more acclimated with the organization's new normal and new way of operating. Overall, it can be summed up that the large slump in employee satisfaction resulting in low workplace morale was due to the lack of organizational preparedness concerning personnel, policies, and procedures before ERP system adoption and

implementation. Research findings supported this theory and highlighted how not preparing an organization for periods of change and transition can potentially cause increased employee dissatisfaction and low organizational morale.

Productivity. Productivity describes the ability of a person, group, or organization to meet its prescribed goals, metrics, or standards. According to organizational metrics and standards during the 6-month period of ERP system adoption and implementation, productivity fell 50%. This drastic drop in productivity can be linked to glitches in system operations due to user error. This information can all be derived from detailed performance reports pulled from the ERP system. This large slump in productivity directly linked to decreased profits due to a lack of shipments, and lower rates of manufacturing and production as supplier and vendor orders were placed late or incorrectly because employees were not properly trained on the system. Participant 7 shared, "I did not know how to do my job on the new system, so I know I messed a few things up, especially in the early days and weeks." Measuring productivity concerning employee functional knowledge and training and organizational profits is critically important because it depicts a clear picture of how not training and preparing employees on how to operate a new system can cause the entire organization to suffer. Allowing research findings like participant feedback to validate performance metrics provided a wealth of knowledge and insight, as both sources supported one another and proved to be credible and reliable in their derivative. Participant 9 stated, "I know we didn't meet our goal because we didn't know how to work the system, we were not prepared to change with it so it took weeks if not months to know and understand how to perform our old jobs on the new system. I know our numbers took a hit." Research findings in the way of participant feedback mimicked performance reports showing the large slump in productivity. Subsequnt to system implementation, as employees were learning on

the spot and middle managers sought training from system vendors, productivity has slowly increased to 75% but has yet to return to before system metrics.

Anticipated Themes

There are anticipated themes expected arise throughout the totality of any research. An anticipated theme is obvious and can be easily seen based on the topic, while a discovered theme will arise or become more relevant as research continues. The primary anticipated theme in this research was employee resistance to change. As organizations look to be competitive and streamline operations to increase their profitability, change within operations, process, and system functionality must occur. Employees and even management are often comfortable with the status quo, and thus change is uncomfortable. Change requires learning new processes, procedures, and often new computer systems. Employee resistance to change is extremely common and must be combatted through a thorough explanation of the change and demonstration of change benefits, hopefully resulting in employee buy-in. Ultimate employee buy-in is necessary for organizational cohesion and organizational performance. Employees buy-in referrence to organizational change and transition is critical for the success of the organizational change because of the critical role and nested responsibilities employees perform to assist organizations to change successfully. Resistance to change can often be combated and even eliminated if employees see their daily contribution and positive attitude toward change as essential for the success of the organization. Participant responses echoed desires of wanting to be included in the upcoming change. Participants had a desire to understand what the change was, why it was necessary, how it would affect their daily operations, and how they could benefit from the change. Simply explaining these components to participants and demonstrating system benefits would have helped decrease employee resistance and improve employee buy-in to the

organization's change. This was the only anticipated theme, and indeed the research findings concurred that it was a very prevalent theme throughout the entirety of the research. There were no anticipated themes that were not found within the research findings.

The Literature

Research findings were very similar to obtained literature, while also providing the possibility for greater insight than researched literature could offer. Themes persistent in researched literature included the positive benefits and attributes of ERP systems, such as streamlining, process consolidation, information and inquiry repository, and procedural synchronization enabling organizations to operate and share information seamlessly with internal departments and external partners and stakeholders. Tan et al. (2019) explained how data relevant to natural resources fuse with data metrics from stove pipe systems to collaboratively feed information inputs into ERP systems. Tan et al. (2019) expressed the primary benefits of an ERP and its unique ability to reduce, streamline, and fast-track every facet of organizational tasks and assignments through collaboration, synchronization, and alignment of information, efforts, and resources. Tan et al. concurred with the validity of the need for accurate inputs to procure reliable and accurately processed outputs, thus enabling an organization to comprehensively manifest the prescribed benefits and an ERP system. Research findings proved this information to be true at varying degrees by various groups of employees. Senior managers completely agreed with the literature since they understood the overarching benefits of ERP systems and the possibilities for improvement within the organization. Middle managers partially were able to see the benefits of ERP systems since they could now easily share information, communicate, and analyze data positions for decisions collaboratively across departments. Hourly employees agreed with the literature the least; research findings depicted this group as

the group who endured the greatest procedural process change without being able to see how the changed reconfigured processes for the better from a macro, holistic view.

As employees sought to see, understand, and manifest the perceived benefits of the ERP system, research findings proved the testing of employee satisfaction during and after system adoption and implementation. Rothwell et al. (2020) discussed employee satisfaction through the lens of return on investment through training programs. Research findings and literature concurred on the need for training programs on daily operations and operational systems during periods of transitions as a means of maintaining and improving employee satisfaction. Organizations investing in operational systems without investing in their personnel who desire to gain knowledge about the system and functional training on the system are in danger of wasted resources. As Furst and Cable (2008) stated, employee satisfaction was also a dependent variable that served as an output of the system adoption and a testimonial of the effectiveness of the chosen leadership style. During organizational system adoption, leadership must consider and incorporate employee desires, needs, and longevity components to ensure that, during the time of shift and change of processes and procedures, systems are stable. This literature concurred with the feedback and themes derived from research findings.

An additional aspect of literature congruency was the need for organizational preparedness and the need to address policies, procedures, and personnel. As Boge et al. (2018) mentioned, failing to prepare yields a business that consequentially is preparing to fail. This statement was indicative of the need for preparation. The concept highlighted that when there is no preparation, the obvious and most likely result will be failure. This concept was the foundation of the problem concerning enterprise resource systems and was reflected within the feedback from each interview; its results can be seen in organizational performance metrics. The

concept of preparation and the consequences of failing to prepare were directly applicable to this specific study. This concept explained that by failing to prepare, components within business such as data, processes, personnel training, and organizational culture shifts have not been prepped to analyze the potential changes or shifts each component will undergo because of the organizational change. All aspects of pertinent literature were echoed in the research findings, and employee dissatisfaction rose due to the lack of policy, process, procedure, and training alignment to new ERP system configurations and needs.

However, none of the researched literature provided a roadmap on how organizations should prepare for new EPR system adoption and implementation. With the popularity and demand for ERP systems on all scales of business applications, there is need for knowledge about how to suitability and successfully implement systems in a manner that least disrupts daily operations and most comprehensively improves and moves the operational ability of the organization forward. The research findings provided insight and advice points for organization about which behaviors not to copy or mimic, yet the research findings did not provide a solidified road map on how an organization can successfully adopt and implement ERP systems with proven positive results concerning a more durable supply chain or increases in profits.

The Problem

The general problem to be addressed was the potential lack of organizational preparedness required to effectively adopt and implement integrated enterprise resource systems, resulting in an increase in supply chain disruptions and a decrease in profitability. The research findings directly addressed the problem from three primary perspectives including organizational preparedness concerning personnel, training, and the existing operating environment; organizational performance; and process, procedure, and policy assessment. Research findings

concurred that lacking organizational preparedness when seeking to adopt and implement an ERP system is a vital component of the system's success or failure in seeking to actualize the system's benefits. This concurrence from the research results validated the existence of the problem and its prevalence. The research findings proved the organization did not allow the ERP system to operate successfully due to its inability to prepare the organization concerning all components of its existing operating environment, including personnel, processes, policies, and expected profit margins. Secondly, organizational performance suffered as conveyed through the researcher's analysis of performance metrics in comparison to organizational performance before system adoption and implementation. This directly addressed the profits component of the problem. After system implementation, profit margins decreased due to a slump in organizational performance which was a result of not preparing or adequately analyzing existing processes and procedures for congruency, alignment, and necessity upon the implementation of the ERP system, which directly addressed the third perspective. Research finishings validated the problem and further provided a linkage between organizational preparedness as a required component necessary for successful system adoption and implementation to avoid increased supply chain disruptions and decreased profitability.

Summary of the findings.

The purpose of this study was to explore why organizations lack the preparedness required to effectively adopt and implement integrated enterprise resource systems. Through this exploration, insight and understanding were gained on how this lack affects supply chains, their ability to be lean, durable, and tenacious, as well as the effects of a lack of preparation on supply chain disruptions and an organization's profit margin. The specific problem addressed within the research was the potential lack of formalized internal data audits and systems checks to cleanse

data and align existing system processing with daily operations in preparation for the adoption and implementation of integrated enterprise resource systems within the logistics industry in the northeastern United States. Research findings both qualitative and quantitative in nature directly validated the purpose of this study by providing explicit real-world findings that proved to be congruent with the purpose of the research, thus validating the research purpose and identified research problem. The research questions related directly to the inquiry of how to successfully adopt and implement EPR systems to minimize supply chain disruptions and provide durability and longevity for the organization, all while increasing profits. Key contributions from the research findings included validation of the need for this research because the roadmap is nonexistent for organizations seeking to successfully adopt and implement ERP systems. Another key contribution from the research findings was that an organization not being prepared is the single greatest contributing factor that leads to ERP systems not producing the anticipated beneficial metrics due to organizations not preparing system inputs such as personnel, policies, procedures, processes, and accompanying training to ensure suitable and appropriate system operation and navigation. The last key contribution was the derived validation of the direct linkage between organizational preparedness and their system's ability to minimize supply chain disruptions and increase profit margins. Understanding and analyzing the connection between organizational preparedness, aligning all operational components to system operations, and understanding how all components link to organization output was pivotal in providing solution sets for the initial research problem.

Application to Professional Practice

This research compilation is critically useful and beneficial professional practice. This research provides the initial problem and purpose of the research and provides loose best practices for organizations seeking to adopt and implement ERP systems. Through the themes

discovered, organizations can glean business components for analysis and preparations before the organizational change. They will also be able to proactively combat changes within the operating environment to maintain morale and employee satisfaction during periods of change. It is important to explore how the research and its finding can improve general business practices and provide insight into potential implementation strategies.

Improving General Business Practice

ERP systems have become a critical component of the business world and have been adopted and implemented in organizations of different sizes and of various functional specialties. As the benefits of ERP systems continue to be manifested, realized, and proven through system results, the gap in literature is evident as researchers seek to answer organization executives' inquiries concerning an advised roadmap or best practices for how to best adopt and implement ERP in a manner most suitable and mindful of the organization's existing processes, policies, procedures, and personnel. Research findings and the implementation and themes contrived can be sorted into three primary categories for how general business practices can be improved through the research project and its findings. The three primary components that can be used to improve general business practices include the need for a system and procedural analysis and alignment, system training, and holistic organizational transition.

System and Procedural Analysis and Alignment

One advantage the study provided is insight for organizational leaders on the benefits of analyzing the ERP system and the organization's processes and procedures. This analysis will provide insight into components of the system and procedures that intersect and areas in which they diverge. In places of alignment, there is less for leadership to address. In places where systems and procedures diverge, analysis is needed to discover the best method to use and the

possible need to create a new alignment for system and organizational procedures to match so information, efforts, and resources will follow through the system in a collaborative and synchronized manner. The synchronization of the system and procedural methods is critical so system functions and personnel efforts will be performed in an integrated fashion, both efforts working to obtain one unified goal of task and assignment completion. Organizational leaders taking the insight from research findings to better identify, pinpoint, and address system and procedural non-congruence will assist organizations in realizing the anticipated ERP system benefits upon adoption and implementation.

ERP System Training

The research findings and results provided insight into the importance of new system training as a critical component of organizational change and transition to improve general business practices. Research findings taken from interview feedback, sorted, grouped, and aligned with slumps in organizational performance metrics, highlight the impact the lack of system training has on organizational performance. Participants provided in-depth feedback on the lack of training during system transition and the lack of functional and operational knowledge concerning the system, its functions, and how to accomplish legacy tasks and assignments in a comprehensive and consolidated fashion. This feedback can be used to provide organizations with a roadmap on required and mandatory employee training on system operations, system functions, and organizational policies and procedures that have changed or shifted due to system adoption and implementation. Taking heed of research results can improve other organizations' immediate success with new system adoption and implementation. Taking heed of research findings can also aid organizations in focusing and directing efforts and

resources to segments of system adoption and implementation that are most critical to the organization's operating environment.

Organizational Transition

It can be concluded from interview feedback and the analysis of survey results and performance metric analysis that organizational leadership was not fully prepared for the organizational transition, nor did they fully understand how a shift in a major operating system would shift and require all major processes, procedures, policies, and personnel tasks and duties to be realigned. The significant way in which research results can improve general business practices is in helping organizational leaders to understand the enterprise perspective and scope of organizational change and system adoption and implementation. Understanding what changed from a bird's eye view, in the manner the organization lacked within the research project, provides a lesson on practices to avoid. As a major research concept, 'failing to prepare causes you to consequentially prepare to fail' is accurate when leaders fail to realize all the necessary components that require analysis and realignment before and during ERP system adoption and implementation.

Potential Implementation Strategies

Implementation strategies describe how an action plan is put into execution in a manner that specifically addresses critical components of a situation in a manner that is beneficial (Tawse & Tabesh, 2021). In seeking to understand how the research findings and project results can be used from a strategic perspective to improve the process of system adoption and implementation, a strategy must be crafted that takes research results and molds them into a strategic plan or model that can be implemented within or used by organizations seeking to adopt and implement ERP systems. Based on the analysis of survey results, interview feedback, and

the analysis of performance metrics, it can be summarized that organizations seeking to make research results internally useful should use one of two potential strategies for implementation: organizational alignment and restructuring or organizational re-alignment and shifting.

Strategy One – Organizational Alignment

The first strategy for implementation seeks to completely remake and re-model organizational processes and procedures in direct alignment with ERP system configurations to ensure all information, efforts, and resources are synchronized to maximize organizational effectiveness. Crespi et al. (2019) describe organizational alignment as the incorporation of methodologies, ideas, and processes that ensure all members of an organization share and are bought into the same vision, mission, and goals of an organization. Research results, specifically interview feedback, provided insight into the lack of process alignment with system configurations; for the adopted system to perform as anticipated and produce anticipated results, organizational internal processes and procedures must directly align with system configurations and input requirements. For many organizations, this requirement will require a 360-degree organizational alignment wherein organizational leadership completely re-crafts and re-structures organizational processes, procedures, policies, and even the way personnel work to maximize system potential output. This reconfiguration often takes a long lead time and employee notice that their operational environment will be drastically changing. Choosing to completely restructure will allow for the most accurate organizational alignment to system configurations, but it requires the greatest effort, recourses, and flexibility as change and transition occur. Though this strategy may seem cumbersome or difficult, it will yield the highest possibility of results to the organization, its policies, procedures, and processes, including personnel

involvement that is completely crafted, engineered, and supported by ERP system configuration and system input requirements.

Strategy Two – Organizational Re-alignment

The second strategy, less intrusive and based on existing organizational processes and procedures, re-aligns and shifts internal operations to more suitably align with the new system without completely undoing existing operational norms. Liski et al. (2019) define organizational re-alignment as an effort to take a second or sequential attempt at aligning processes, policies, and personnel to an overarching goal or mission. The strategy of re-alignment involves less effort, fewer resources, and a dramatic shift. Re-aligning is not as close or effective as total and complete alignment, so the organization must be ready to accept the operational risk that the system may not perform or produce outputs as anticipated due to the lack of complete and total alignment to system configurations. Re-alignment is useful when legacy and existing organizational policies, procedures, and processes are already closely aligned with system configuration requirements and thus less change and organizational shifts are needed. Re-alignment requires analysis of existing methods to see how existing methods can be re-aligned using minimal effort and resources while still seeking to yield tangible results. This strategy seeks to find the sweet spot between effort and effectiveness. Though more cost-efficient in the initial implementation, system output may not reach that of the alignment strategy due to a lack of complete organizational alignment with system configuration requirements.

Summary of Application to Professional Practice

In summary, research findings and results are relatable and useful for improving general business processes and are applicable for use as business process improvement with implementation strategies are crafted that outline how research results can aid and support

organizations in successfully adopting and implementing ERP systems. Research results can support general business practices in improving ERP system adoption and implementation by addressing the criticality of system and procedural analysis and alignment, ERP system training, and overall organizational transition. Providing insight into how understanding each component can enhance and improve business processes is a significant contribution to general business practices as the demand for and popularity of ERP systems continue to increase. Research results can be implemented using an alignment strategy or a re-alignment strategy. Both strategies seek to ensure organizational information, efforts, resources, and personnel are synchronized with ERP system configurations. Alignment seeks to ensure total integration through complete alignment of organizational policies, procedures, and processes with ERP configuration requirements for maximum system output, while re-alignment seeks to align existing organizational processes and procedures using the least amount of effort and available resources. Research findings and results proved to be valid and useful for organizations operating in the business arena seeking to improve, streamline, and become more effective in their operations and pursuit of organizational goals.

Recommendations for Further Study

As this research project was executed, additional areas for study or consideration became apparent. These additional areas include ERP system selection, to include suitability and organizational size as well as the type of industry or business and opportunity cost expended in acquiring and implementing the new system. Another primary area of further consideration is the employee experience, including corporate culture, the operational environment, employee satisfaction, training, upskilling, and potential changes in position descriptions and duties. Understanding areas for additional research or consideration is a critical component of

highlighting potential insight left out of this research or other areas of exploration needed for total understanding.

System Selection

System selection was not a component of the original research scope. As the research concept was crafted and executed, it became clear that further exploration of the type of ERP system chosen could potentially be the most important component of successful system adoption and implementation. Choosing a system suitable for a specific organizational size, industry, or function could indicate specific configurations best suited for a specific size, industry, or function; thus, there is room for potential misalignment. Analyzing these specific components before selecting an ERP system is a critical component of ERP system success. Sheik and Sulphey (2020) discuss various ERP systems specifically crafted for small, medium, and large organizations. Because of its price, using an ERP system designed for a small organization is attractive, but will result in ruin for a large company because the system does not have the bandwidth or capacity to perform the volume of functions or synthesized operations required to operate effectively and yield desirable results. Similarly, specific ERP systems are designed to facilitate human resource functions and payroll while others such as SAP are used for inventory management and warehousing. Using a system not specifically designed for the industry an organization operates may be suitable for the basic function but will not be able to be fully integrated into the industry's specificities related to more complex functions. Thus, as a suggestion for further study it is recommended ERP system selection and selection criteria be studied to provide further insight and a solidified roadmap so organizations can easily and with certainty and clarity select a suitable and accurate ERP system to adopt and implement.

The Employee Experience

Employees are arguably an organization's most precious asset. Within an organization, employees perform many of the pivotal tasks required to make the organization successful. Employees who perform their jobs well possess personal skills, abilities, and talents and combine those personal attributes with functional job training to execute their jobs to their full potential. Training on organizational policies, procedures, processes, and operational systems is a critical component of ensuring employees are adequately equipped to properly perform their jobs and execute the functions and daily tasks of their positions. During system adoption and implementation, specifically during and after the transition, throughout participant interviews employees expressed a lack of training on the new system and newly established processes. This lack of training led to low employee satisfaction and employees feeling low workplace morale due to a lack of knowledge, belonging, and purpose. Uslu et al. (2022) discuss the importance and criticality of workplace training as a means for employee satisfaction, often linked to corporate morale, job performance, and employees feeling equipped to perform their job. Workplace training is also the primary source of employee complaints. Research findings displayed the need for organizational leadership to analyze and invest in the employee experience concerning training and equip employees to face change and transition in an integrated and sequential format. As the importance of the employee experience is studied further, it is critical to mention a training component known as upskilling. Jaiswal et al. (2022) describe upskilling as a type of training focused on employees who perform entry or low-level tasks and are then trained to execute more sophisticated tasks as a new requirement of their job performance. This is prevalent with the introduction and adoption of a new ERP system as additional computer, data query, technical skills are needed to execute system functions and select the accurate inputs for the system. When looking to upskill employees, academic

schooling and potential aptitude to grasp concepts and ideas and perform them daily must be considered before demanding employees perform more complex system-related functions. Understanding the employee experience is a component of the research project that requires further study because employees are the most valuable asset an organization possesses, and thus their experience, concerns, and potential workplace issues must be anticipated and mitigated in an attempt to ensure ERP system adoption and implementation are successful and yield desired results.

Reflections

Crafting, conducting, and summarizing a research project is complex and often an extremely personal journey of self-exploration and academic development. This journey has been in-depth and taught the researcher a great volume of information related to research, research studies, and the required process. More importantly, this journey has provided personal and professional growth in a plethora of ways. This dissertation and research study journey has provided biblical insight and expanded the researcher's perspective on what it means to be a Christian, a Christian professional, and a Christian researcher. The researcher looks forward to fully exploring, extrapolating, and benefiting from the many lessons this journey has taught.

Personal & Professional Growth

This research project has been a journey that began in the Fall of 2021. The researcher initially thought this research would primarily be centered around business, logistics, and supply chain management, but as the researcher began to go through the process of preparing, executing, analyzing, and now summarizing the research project, the researcher saw along the way how they have grown in a far more pivotal way in terms of personal and professional aptitude for processes, procedures, flexibility, writing, researching, and collaborative research

projects. Personally, this journey of understanding the task, outlining how it will be completed and fully executing the process according to prescribed specifications challenged the researcher's ability to adhere to and follow explicit instructions, think collaboratively, discover new terminology, and understand how each new term fits into a larger framework. The researcher's ability to use time wisely was tested, as during one semester the researcher was forced to repeat the semester because all applicable tasks were not submitted by the deadline. This taught the researcher to manage time more closely and work diligently to finish early rather than slowly completing tasks when convenient. This journey gave the researcher a new sense of urgency and the sense that the best time to complete a task is now. The researcher expanded their ability to collaborate as they worked with the participating organization to arrange the research project. Personally, this research journey taught so much about how to initiate a task and see it through to completion. The researcher is grateful for this journey as it has expanded their depth and breadth of understanding, writing style, and ability to write and communicate concisely.

Professionally, this research journey has expanded many workplace skills such as writing, analyzing, and actively listening. The researcher learned new methods and modes associated with active listening as the researcher employed them during participant interviews and memoing. This journey has taught the researcher how to see, view, and analyze an organization from a holistic perspective, equally considering all critical aspects of an organization including its mission, its people, and its processes and procedures while at the same time considering its profit margin and bottom line. This research project has enabled a greater appreciation for the workforce and for issues and concerns that plague every level of employment. The researcher will be a better middle manager and supervisor because of the realizations they have encountered during this journey.

Biblical Perspective

As a Christian, every aspect of life comes with questions on how things should be done in a manner that is pleasing to God. Being a doctoral student and operating a business or organization is no different. When approaching the research process, it is imperative to first understand people, what occurs, and what situations are often orchestrated by God. This fact eliminates the ability to provide absolutes in any situation if Christians truly believe God allows seasons and situations to occur that may fall outside of what normally occurs, thus potentially skewing research findings and normal matriculation trends. The Bible says, "For my thoughts are not your thoughts, neither are your ways my ways, declares the Lord. As the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts" (*New International Version Bible,* 1978/2011, Isaiah 55:8-9). This scripture illuminates the idea that as groups of people, phenomena, and trends within society and business are studied, no two situations, people, or businesses will be identical. God does what He desires, and our mortal minds are often unable to fully comprehend God's rationale or reasoning for why things happen. Understanding this concept is one of the most critical points of consideration when approaching research projects from a biblical perspective.

When conducting the research project, several themes were prevalent including the treatment of employees and the impact of organizational change and transition on employees, organizational shifts, and component analysis when changing processes and moving towards innovation. Each theme can be seen from a biblical perspective that provides insight into how each concept or idea should be properly addressed in a manner that adequately addresses and solves the problem while simultaneously pleasing God. One primary business function highlighted within the research findings and results was the treatment of employees and how the

organizational leadership's actions or lack thereof negatively affected the employees and their workplace experience. The Bible advises, "Masters, provide your slaves with what is right and fair because you know that you also have a Master in heaven" (*New International Version Bible,* 1978/2011, Colossians 4:1). This scripture admonishes those in leadership or control to treat their employees or servants fair and just; this includes ensuring employees have the tools and training needed to adequately perform their jobs. Throughout the research, especially within participant feedback, a common theme was the lack of notice or inclusion on the upcoming organizational change, as well as the lack of training on the newly adopted and implemented ERP system. The Bible discusses the way others are to be treated: "Do to others as you would have them do to you" (*New International Version Bible,* 1978/2011, Luke 6:31). This scripture reinforces the concept that organizational leadership should have been more intentional with how they handled employees during the transition. Knowing all that was happening and all that would happen, it is certain that if they were in the place of the employees, they would want to be fully informed of what was happening within the organization and how it would affect their positions and daily job tasks, and also to be reassured that they would receive the new and necessary training to complete the job in congruence with the new operating system. Understanding the employee experience from the biblical perspective is critical when seeking to conduct business and lead an organization in God's way.

Along with the employee experience, organizations facing overall change can be difficult because the changes affect the entire organization in potentially different and diverse ways. As revealed through the research results, the analysis of all organizational operations is critical when ensuring overall transition and change are smooth, synchronized, and sustainable. Most often an organization's critical operating components are reviewed and mitigated but not the small

elements; however, it is often the small elements that in the end have a greater impact on the organization's ability to change and adapt to a new operating environment. The Bible advises, "Whoever can be trusted with a very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much" (*New International Version Bible,* 1978/2011, Luke 16:10). This verse provides biblical perspective for an organization's leaders on the importance of being faithful, mindful, and considerate of the small elements within a business because they provide a witness of how one will treat and handle the larger issues within business operations.

Summary of Reflections

In summary, this research project journey has provided many points for reflection and clarity. This journey has provided great personal and professional growth. The researcher's character, commitment, and competency have increased. Their technical abilities to write, articulate, and collaborate have expanded. The researcher has learned to better operate within processes, procedures, and deadlines. This project has also provided depth and direction on how to handle organizational issues involved with transition and change. The researcher has learned the importance of the employee experience and how to holistically view an organization and all mitigating components necessary for the successful adoption and implementation of enterprise resource planning systems.

Summary of Section 3

This research project is reflective of an initial research problem concerning the potential lack of organizational preparedness required to successfully adopt and implement enterprise resource planning systems. This problem was initially discovered as the demand for ERP systems rose and organizations discovered a lack in an established roadmap or collection of best

practices surrounding how to properly prepare an organization for transition and system change from a collective, holistic perspective, while also analyzing its internal components for suitability and the needed adjustments required to accommodate the change. This research project was executed by a constructivism paradigm with a flexible design, using a single case study method. The participating organization agreed to allow participation of employed personnel who worked with the organization within periods before, during, and after ERP system adoption and implementation. The research project used various investigative modes including surveys, interviews, and performance metrics to conclude the effect of adopting an ERP system on the organization, its personnel, its processes, and its profits. Information from the three methods was coded, sorted, and organized to analyze the information for the discovery and interpretation of themes. Triangulation of the available information confirmed the derived themes and provided validity and credibility for the discovered themes. Such themes discovered include resistance to change, lack of organizational morale, and the lack of employee buy-in relating to system operations. Validating themes led to the analysis of research results concerning research questions, the conceptual framework, and the literature. Research results enabled the creation of suggestions for further study such as the ERP system selection and consideration of the employee experience. Solution sets surrounding the need for employee training, system alignment with new ERP system configurations, and the need to review and analyze the organization and organizational change from a holistic perspective through the reconfiguring of processes, policies, and procedures will enable an organization to successfully adopt and implement an ERP system in a manner that decreases supply chain disruptions and increases the organization's profit margin.

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Appendix A: Interview Guide

Question 1. What was done in preparation for system transitions?

Question 2. Organizational performance was more effective to meet and exceed organizational goals during which transition phase? And why?

a. Before System Transition b. During System Transition c. After System Transition

Question 3. Corporate culture and training were more effective to meet and exceed organizational goals during which transition phase? And why?

a. Before System Transition b. During System Transition c. After System Transition

Question 4. Organizational policies and procedures were more effective to meet and exceed organizational goals during which transition phase? And why?

a. Before System Transition b. During System Transition c. After System Transition

Question 5. What is the greatest issue within the organization?

Appendix B: Survey

Question 1. What employment level are a part of: (only circle one)

a. Employee b. Middle Management c. Top Management d. None

Question 2. Were you present at this organization for the entire system transition phase (before, during, and after)?

a. Yes b. No

Appendix C: IRB Approval Email/ Letter

[External] IRB-FY22-23-661 - Initial: Initial - Exempt

do-not-reply@cayuse.com <do-not-reply@cayuse.com>

Fri 2/17/2023 2:47 PM

To:

Harrison, Janet E (School of Business) [redacted];

McCollum, Kaitlyn [redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

February 17, 2023

Kaitlyn McCollum

Janet Harrison

Re: IRB Exemption - IRB-FY22-23-661 Organizational Preparedness Needed for Enterprise Resource Planning System Adoption and Implementation

Dear Kaitlyn McCollum, Janet Harrison,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA)regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB.

Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any

modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at

irb@liberty.edu

.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office

Appendix D: Permission Letter

LOGISTICS READINESS CENTER 1816
SHOP ROAD
FORT LEE VA 23801-1604

5 December 2022

To Whom This May Concern,

Ms. Kaitlyn McCollum, Doctoral Student at Liberty University, requests permission to use The Logistics Readiness Center as the participating organization for a single case study to be used as the primary topic of a Dissertation Research Study. Ms. McCollum has permission to freely interact with employees of the organization as participants within the research study in various capacities to include conversations, surveys, interviews, follow up interviews, and sensing sessions. Ms. McCollum has permission to further review archival performance data and be granted assistance with extracting current performance data from operating databases as needed. This request includes the review of organization policies, processes, and procedural documentation. By signing this form, the organization agrees to allow Ms. McCollum permission to use the organization as a research study thus this document if proof of permission.

[redacted]

Cassandra Pride
Division Chief
Logistics Readiness Center

[redacted]

Kaitlyn McCollum
Doctoral Researcher