

# Empowering High-Tech Manufacturing in Industry 4.0

*Harnessing Change Readiness and Innovation to Maximize Success*



*This study used pseudonyms for the names of the manufacturing firm, the names of interviewees and employees, and the location of the firm to protect confidentiality and anonymity.*



Applied Doctoral Project

Lance Rodman

In Partial Fulfillment of the Requirements for the  
Degree of Doctorate of Business Administration at  
Indiana Wesleyan University



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Signature Page

**EMPOWERING HIGH-TECH MANUFACTURING IN INDUSTRY 4.0**

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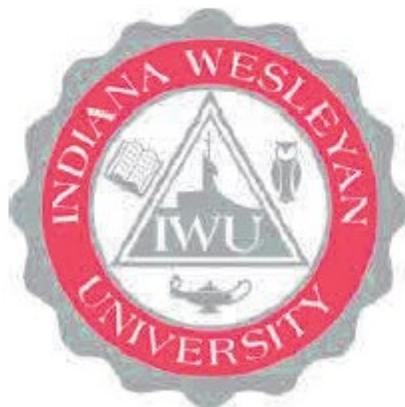
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## Dedication

I dedicate this work to the people of EM Technologies. You have taught me more than you could ever know.

## Acknowledgments

This applied doctoral project is the culmination of the love and support of so many people.

To the One who made this all possible, thank you.

To my spouse, family, and friends, thank you for allowing me the time and space to accomplish my dreams; I look forward to sharing the future with you.

To the leadership of EM Technologies, your faith in me humbles me, and this work would not have been possible without you all.

To my PBL team, thank you for cheering me on for the past couple of years. It was a joy to learn alongside accomplished, dedicated scholar-practitioners like all of you.

Finally, to my research chair, Dr. Debbie Philpott, you are a force to be reckoned with. The only thing more impressive than your absolutely monumental abilities as an educator is your utter devotion and care for your mentees. If completing a doctorate is like being born again academically, then you were my midwife. Words are inadequate to describe my gratitude.

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## Abbreviations

Abbreviation	Name
BKD	be, know, do
CM	contract manufacturing/manufacturer
CMP	change management plan
CVF	competing values framework
EMT	EM Technologies
EMT-AD	EMT — Antennas Division
EMT-CM	EMT — Contract Manufacturing Division
HCM	human capital management
HRCI	HR Certification Institute®
KPIs	key performance indicators
M&A	merger and acquisition
MVV	mission, vision, and values
NTCM	Nadler-Tushman congruence model
MPI	multiple perspectives inquiry
OED	organizational effectiveness and development
R&D	research and development
RF	radio frequency
ROI	return on investment
SDT	self-determining theory
SHRM	Society for Human Resources Management
VBM	virtuous business model

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# APA Modifications List

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This ADP uses the style guide of *The Publication Manual of the American Psychological Association, Seventh Edition*. Since a doctoral consulting report should reflect the client's (partner organization) style, the following modifications to the *APA Style* were used.

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**Abbreviations.** Consistency is applied throughout to show abbreviations, regardless of how few are located in the study (i.e., even when less than three are present).

**Callouts.** Resembling thumbnail figures and tables, callouts are not labeled, titled, or cited since they mirror cited content within the narrative.

**Endnotes.** For ease of reading and to delineate information provided by the partner organization, endnotes are used throughout this ADP. They are single-spaced and are indicated by Arabic numbers. They can be found at the end of the report.

**Font.** To mimic EM Technologies' style guide and to increase the accessibility for its multigenerational workforce, this ADP is designed with the following font types and sizes:

- ITC Clearface size 20 for headings
- Montserrat size 16 for subheadings
- Montserrat size 11 for standard text
- Montserrat size 9 for figure and table note text
- Montserrat size 9 for footnote text

**Footnotes.** Located at the bottom of select pages, footnotes provide clarifying information. They are single-spaced and indicated by Roman numerals (e.g., i, ii, iii).

**Figures and Tables.** Figure and table numbers and titles appear below each and are single-spaced. The label is bolded. By design, not all tables are consistently formatted.

**Headings.** APA heading levels were modified for aesthetic purposes and the use of EMT-branded colors:

- Level 0: blue, bold, left justified, title case
- Level 1: blue, bold, left justified, title case
- Level 2: black, bold, left justified, title case
- Level 3: black, bold, left justified, italicized, title case
- Level 4: black, bold, left justified, italicized, title case, level with paragraph
- Level 5: black, bold, indented, title case, level with paragraph, ending in a period

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**Italics.** Various emphases in the study are shown in italics.

**Page Numbering.** Arabic page numbers were used throughout.

**Spacing.** Single-spacing is used throughout this ADP, with double-spacing in between paragraphs.

**Table of Contents.** Only Level 0 and Level 1 headings are listed in the Table of Contents.

**Text Alignment.** To aid in the professional, accessible overall appearance of the consulting report, paragraphs are justified rather than left-aligned.

**Third Person.** First-person pronouns are not used in the report. Instead, the author is referred to in the third person.

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## Executive Summary

EM Technologies (EMT) is a small but growing high-tech manufacturing and engineering firm in Jamestown, NY. The company specializes in custom-made precision metalworking and fabrication and the design and development of military-grade antennas for federal, state, and local government entities. For a period of 10 years, the firm was managed by the family attorney of the former owner, who had passed away. During that time, the leadership's main goal was to mitigate risk in order to protect the value of the company until it eventually sold. Consequently, all change and innovation efforts were discouraged, as those things were considered too risky. The firm was acquired in 2021. EMT's new ownership has a grand vision for the organization. The new leadership knows the organization must embrace change and innovate to compete in the rapidly advancing high-tech manufacturing sector. The organization anticipates that this study will aid that goal and provide evidence-based solutions to help leadership motivate individuals to welcome change and innovation.

### Significance and Purpose of the Study

As Aduku et al. (2021) highlighted, readiness to accept change is one of the crucial factors in enhancing employee performance. But more than change readiness is needed: The firm must do and make things in new and better ways. According to one of the leading consulting firms in the world, U.S. industrial-technology companies are playing a crucial role in driving innovation and promoting sustainable and inclusive growth in a rapidly changing economy and workforce (Borden et al., 2022). High-tech manufacturing is a vital component of the broader manufacturing sector in the United States. However, it is a vulnerable industry that needs to adapt to keep pace with the exciting developments of the Fourth Industrial Revolution, or Industry 4.0.

EMT's leaders face a persistent challenge to motivate their employees and teams to be more adaptable to change. In addition, they have not yet discovered the most effective way to encourage innovation, essential to maintaining a competitive edge in a competitive market. The organization, its teams, and its employees must embrace change and engage in innovative practices to fulfill ownership's newfound mission and vision and support the company's growth.<sup>1</sup> This study focused on the relationships among individual contributors, teams, and upper-level management at EMT to identify leadership and management initiatives that could positively impact employee readiness for change and their willingness to engage in new and better ways of working. The aim of this project was to explore and provide concrete, evidence-based solutions that enable change and innovation within a high-tech manufacturing environment.

### Research Question

Rapid technological developments and the utilization and integration of advanced technologies throughout the manufacturing process characterize Industry 4.0. This requires firms to be ready for change and welcome it as an opportunity to learn and grow. Because of the rapid pace of change, firms must also engage in innovative processes throughout the manufacturing process to remain competitive in an

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industry quickly adopting new technologies like artificial intelligence, machine learning, and automation. Simply put, successful organizations in Industry 4.0 are the ones that adapt, welcome change, and embrace new and better ways of working. This study aimed to assist EMT in thriving in Industry 4.0 by providing the organization with specific strategies for motivating change and innovation. The study was guided by the following research question:

How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?

To discover the answer to the research question, the researcher developed several guiding questions that focused on the alignment of strategy, structure, culture, and human capital management throughout high-tech manufacturing organizations, as well as effective motivation theories and leadership styles, best practices, benchmarks, and potential methodologies to investigate the problem at EMT.

## Data Collection and Methodology

After a comprehensive review of the relevant scholar-practitioner literature revealed a great deal about strategy, structure, culture, and human capital management best practices and benchmarks, attention turned to EMT itself to close the remaining knowledge gaps surrounding the organization's roadblocks in the way of change and innovation. To that end, two identical surveys were conducted among EMT's leaders and employees to evaluate how each stakeholder group perceived the organization and its practices, giving immense insight into the organization's current state.

Using the quantitative and qualitative data, the researcher analyzed the survey results to determine if and to what extent there was a perception gap between how the leaders and employees viewed the current state of the organization's strategy, structure, culture, and human capital management. Then, the researcher identified several potential solutions derived from the literature and survey data. Finally, the solutions were evaluated using a holistic framework based on multiple perspectives, including gap analysis, fulfillment of organizational goals, and the *be, know, do* model heralded by highly effective organizations like the U.S. Army (1999). Notably, the model is a keystone of the DeVoe School of Business, Technology, and Leadership's virtuous business model, a holistic approach to leadership and organizational development that stresses the ethical advancement of economic, social, and spiritual (i.e., existential) capital (Indiana Wesleyan University, 2024).

## Recommended and Selected Solution

The researcher used the data analysis and multiple perspectives approach to devise the following recommended multi-part solution package:

- Involve frontline management to regularly communicate the firm's new mission, vision, and values since the survey revealed employees have a great deal of trust in their direct supervisors.

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- Operationalize the mission, vision, and values by fully integrating them into the employee lifecycle.
  - Train leaders on servant, adaptive, and virtuous leadership since those are the styles that support change and innovation, according to the literature.
  - Regularly update employee training programs to keep up with industry trends.
  - Empower employees as consumers, giving them the opportunity to identify and help create their own training programs.
  - Form a compensation task force to identify total rewards improvements to better incentivize change and innovation and a continuous improvement task force to recommend process and product innovations.

Sponsors from EMT's leadership team unanimously and wholeheartedly approved the solutions package since they understood the imperative to change and the roadblocks standing in the way.

## Limitations and Generalizability

This study focuses on a particular organization that has approximately 50 full-time employees working in a specific niche of the high-tech manufacturing sector. It only considers a specific point in time in the organization's long history. Therefore, the findings may not broadly apply to the whole manufacturing sector, other industries, or other phases in an organization's history or development. Still, the study provides insight on using a multiple perspectives approach, research-based solutions, and practical frameworks that may be beneficial for scholar-practitioners across industries and in academia.

## Change Management Plan

For change to stick, it must be carefully and thoughtfully planned. To that end, the researcher developed a step-by-step change management plan using Lewin's (Raza, 2019) flexible and adaptive *unfreeze, change, refreeze* model. The plan contains a proposed change management team, communication plan, step-by-step implementation steps, evaluation measures, scenario planning, and strategies to reinforce the change. Each aspect of the change management plan provides detailed information about the specific action required, who is responsible for the change, and a timeframe for each step. The proposed start date for the plan is in the early first quarter of 2024 and will continue through the end of the year, although some aspects will continue indefinitely. Because of the intentional and systematic approach suggested in the change management plan, EMT will be set up for success as it moves into the next phase of its organizational life.

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## Section 1: Problem Identification & Investigation

EM Technologies is a high-tech manufacturing firm located in Jamestown, New York. See Figure 1 for an aerial view of the plant. They are part of the broadcasting and communications equipment manufacturing industry in the North American Industry Classification System Code 334220. The organization has two divisions: RF antenna engineering (EM-AD); and contract manufacturing and metal fabrication (EM-CD). After the death of the former owner, the company entered into a trust managed by the family's attorney. During this time, executive leadership prepared to sell the organization by reducing the risk of devaluation. A significant way they aimed to accomplish risk mitigation was to disincentivize change and discourage innovation of the company's products and design/manufacturing processes.



Figure 1. EM Technologies' Building in Jamestown, NY.

Once new ownership purchased the organization in the spring of 2021, nearly \$2 million of new investments into new product development, upgraded software and machinery, high-quality talent, and major building improvements brought a fresh mission to EMT.<sup>2</sup> Executives insisted on change and encouraged innovation to support these new investments. However, despite leadership's best efforts, individuals and teams continue to resist change and innovation, which poses a significant risk to the viability of the organization's ability to produce favorable returns on investment.

Identified in this study are the long-term effects of disincentivizing change and innovation. Also presented are the attitudes and behaviors of leadership and management that can encourage change and inspire change and innovation efforts by employees and teams. Utilizing the DeVoe School of Business, Technology, and Leadership's (2019) problem-based learning model, the study presents a solution to prepare EMT's leadership and management to act as change and innovation agents as the organization grows and develops. Section 1 includes an organizational and problem scenario overview, discovery, identification, and significance of the problem, as well as this project's broader implications, purpose, and significance.

## Organizational Overview

Founded in 1963, EM Technologies is located in Jamestown, New York—just under an hour west of Albany, NY. The organization has two divisions: EMT—Antennas Division (EMT-AD) and EMT—Contract Manufacturing Division (EMT-CM).<sup>3</sup> Its legal form of business is an S-Corporation.<sup>4</sup>

EMT-AD is the oldest division of EM Technologies and designs, assembles, and calibrates military-grade RF antennas used by the military, law enforcement, and intelligence agencies. This division makes hundreds of products that are sold and used globally.<sup>5</sup>

EMT-CD is a specialized metal fabrication and machine shop. This division manufactures or fabricates many components that go into EMT Antennas' products and has its own book of business, including several Fortune 500 organizations.<sup>6</sup> The division's assets include almost two dozen manual and programable machines such as brake presses, waterjets, CNC lathes, and a new state-of-the-art laser cutter.<sup>7</sup>

## Brief History of EM Technologies

The organization began operations in Amsterdam, NY—a former industrial hub of Upstate New York (City of Amsterdam, n.d.). EM Technologies focused solely on designing and manufacturing RF receivers, not today's sophisticated RF antennas. The company continued to grow for a few decades, eventually adding the contract manufacturing division as a line of business when they moved to their current location in Jamestown, NY, in the mid-1990s.<sup>8</sup>



The company operated under a trustee for five years (2017–2021) due to the previous owner's death. During that period, ownership reinvested little to nothing in the business. Surprisingly, EMT operated without a sales and marketing budget.<sup>9</sup> Despite that, the company continued to grow and generate profits. In March 2021, an investor specializing in scaling small- and medium-sized manufacturing firms purchased the company. The new owner has made significant investments in new machines and people. As a result of these investments, the first full year under new ownership was the best year ever for sales and profits.<sup>10</sup>

The company has over 50 employees today—and counting. The new owner desires to grow rapidly—with a projected annual growth rate of 22%.<sup>11</sup> Ownership started investing in sales and marketing, culture and people, and upgraded the technology and business systems. As EMT enters its sixth decade in operation, it strives to remain a great workplace, and the community is taking notice. Recently, the local newspaper, the *Albany Business Review*, highlighted the fast growth rate and new investments in people, equipment, and technology (Cooper, 2023).

### Problem Description

For five years, EM Technologies existed under a family-owned trust that wanted to sell the organization; therefore, during that period, ownership discouraged change and innovation because they believed those efforts could potentially fail and, consequently, result in the



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devaluation of the company.<sup>12</sup> Surprisingly, though, the company continued to produce marginal profits, even while it did not reinvest in the organization and disincentivized change or innovation.<sup>13</sup> Following the organization's acquisition in 2021, new ownership prioritized change and innovation—and invested and reinvested millions of dollars in new technology, equipment, and high-quality talent. Yet, with few exceptions, individuals and teams seemed hesitant to engage in change activities and initiatives. Individuals and teams have also been reluctant to pursue innovation of processes or products. A common phrase throughout the organization has been, "That is how we have always done it, so why would we change or improve it?"<sup>14</sup>

This phenomenon surprises executives and leadership because of the new ownership's emphasis on growth through change and innovation activities. This low readiness for change and reluctance to innovate processes or procedures poses a serious risk to the organization's viability, especially considering the rapid growth new ownership expects as a result of millions of dollars of reinvestment into the organization. It negatively impacts the organization's morale, manager-employee relationships, productivity, and customer service.

Suppose the organization can discover and successfully implement a solution to this problem. In that case, it can be well-positioned to experience much more than the marginal financial growth it has experienced in previous years and take advantage of the exciting new investment in the organization from new ownership, as well as federal, state, and local investments into high-tech manufacturing as a result of recent legislation.

## Questions From EM Technologies' Leadership

There are several interrelated questions associated with the problem:

- What is the effect of long-term disincentivizing of change and innovation on individuals and teams?
- What is the relationship between management's attitudes/behaviors and employees'/teams' change readiness and innovation efforts?
  - If there is a relationship, what are the attitudes or behaviors of managers that can motivate change readiness and innovation?
- What initiatives can executives and senior leaders implement to encourage and incentivize change and innovation within individuals and teams?

## Problem Scenario

Other factors have presented the opportunity for change and innovation, particularly the unfortunate death of the company's president, who was with the organization for over 40 years.<sup>15</sup> He was a brilliant man who worked his way up from an entry-level engineer, and the former president was known for his hands-on management approach. However, due to directives from former owners, antenna design efforts and measures to streamline and modernize the organization did not occur. While the entire organization mourned his passing, they saw the time following his death as an opportunity to reimagine the organization holistically.

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Post-acquisition leadership took radical steps to reduce the bureaucracy and increase the efficiency of the organization and engender trust between leadership and employees, such as

- reduction of executives' direct reports, creating a new class of upper-level managers who were empowered to make day-to-day decisions;
- creation of functional teams that are responsible for various business units based on shared key performance indicators (KPIs);
- cancellation of lengthy, formal annual performance reviews, replacing them with quarterly, conversational feedback sessions between management and employees; and
- solicitation of an anonymous survey of employees about their supervisor.

## Discovery and Identification of the Problem

The problem remains anecdotal and situational, arising through various interactions between leadership, management, and employees. For instance, a major conflict arose when the new vice president of EMT Antennas attempted to digitize that division's hard copy blueprints to make them more accessible for remote or hybrid employees. Many employees hesitated at this idea, citing how the company filed these documents traditionally. This is only one of many examples of similar conflicts arising from attempts to change or innovate company processes.

Despite leadership's best efforts, the new investments, upgrades, and encouragement to change and innovate have not translated into widespread adoption of change readiness or innovation. The following quote from a recent employee survey perfectly captures the sentiment among many employees.<sup>16</sup>

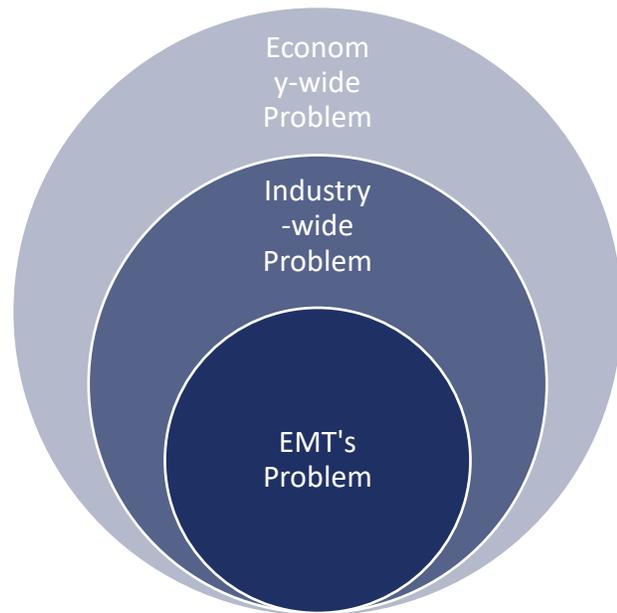


**EMT has been in business for 60 years and the last five years plus have been quite successful. Many things need to be done better, but drastic change may not be the best idea.**

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## Significance of the Problem

The significance and scope of EM Technologies' problem go far beyond the company's reach. If the problem goes unchecked, it can negatively impact the company and the high-tech manufacturing industry at large, various stakeholders, and the global economy. While the context of the problem resides with EMT, it is not unique to this one organization but is experienced industry-wide in a global setting. Nejadi et al. (2017) determined there is a measurable "moderating effect" (p. 163) of change resistance on company culture in manufacturing settings. Adegbite and Govender (2021) also note that resistance to change and innovation are barriers to a manufacturing organization's profitability. Therefore, the lessons learned can be applied and transferred throughout the industry and possibly into other industries.



### Significance for EM Technologies

EM Technologies' leadership have not been able to discover how to motivate more of its employees and teams to embrace change. Nor has leadership been able to spur innovation to grow and maintain its competitive advantage in the marketplace. It is crucial for the organization, its teams, and its employees to welcome change and engage in innovation to perform to the level expected by leadership and demanded by the organization's growth. As Aduku et al. (2021) note, change readiness is one of the primary ways to improve employee performance. Supposing the organization discovers and successfully implements a solution to this problem, it can be well-positioned to experience much more than the marginal financial growth it has experienced in previous years. Further, the organization could take advantage of the exciting new investment in the organization from new ownership, as demonstrated in Appendix A. EMT could also capitalize on federal, state, and local investments into high-tech manufacturing as a result of recent legislation.

### Significance for the Industry

As one of the foremost consulting companies in the world writes, "U.S. industrial-technology companies . . . are driving innovation and sustainable and inclusive growth" (Borden et al., 2022, para. 1). High-tech manufacturing, like broadcasting and communications equipment manufacturing, is a vital part of the more significant manufacturing sector within the United States. Yet, it is a vulnerable industry that needs to adapt to meet the exciting moment in which it finds itself. In general, manufacturing has been central to the American economy. A boom in the mid-to-late 19<sup>th</sup> century, as economists note, boosted manufacturing to effectively constitute 20% of the American labor force (Blackburn & Knoll, 2011). After surging during WWII and

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subsequent years, American manufacturing slowly declined, losing 35% of its workforce over the past forty years (Harris, 2020, para. 1).

However, the industry is experiencing another boom. The substantial bi-partisan support for large-scale investments in American manufacturing—especially high-tech manufacturing—has led to a period of its highest growth in decades under the Biden administration. Remarkably, the sector has added 349,000 new jobs and is receiving billions of dollars of investments to build high-tech manufacturing facilities in those areas hit hardest by past declines and offshoring (Peters & Woolley, 2022). Travelers (n.d.), one of the leading insurance and risk management firms in the world, says it well when they assess that ". . . high-tech manufacturers can mitigate their exposure from international operations through careful study and planning" (para. 1). The high-tech manufacturing industry is certainly more than suitable for fresh inquiry and innovation provided by consultative scholar-practitioner assessment.

## Broader Implications of the Problem

Frankly, when manufacturing does well, society and the economy do well. Moreover, high-tech manufacturing is the future of American manufacturing (McKinsey & Company, 2022). Many factors of society benefit when the broadcasting and communications equipment manufacturing industry operates properly, including good-paying, sustainable jobs, new jobs away from the U.S. coasts, jobs for the underserved or disadvantaged, and national security.

### **Provides Good-Paying Jobs**

Society benefits from the good-paying jobs the industry provides when functioning efficiently and effectively. The National Association of Manufacturers reports that the average worker in the manufacturing sector earns over \$95,000 per year (National Association of Manufacturers, n.d.). Likewise, with a move toward a high-tech economy, high-tech manufacturing jobs pay more and are growing faster than their non-manufacturing counterparts, according to the Austin Chamber of Commerce (Kerr, 2022).

### **Provides Sustainable Jobs**

In the face of the global climate crisis, society benefits when high-tech manufacturing operates in a high-functioning capacity. For example, many firms within the industry design and/or manufacture critical components that go into other technologies that help fight the global climate crisis. Notably, Raytheon Technologies (2021) has committed to addressing the global climate crisis by designing and manufacturing aviation products that lower emissions—and sustainably manufacturing them. Therefore, the jobs within this industry are sustainable in that they contribute to whole-of-industry efforts to curb emissions and fight the global climate crisis.

### **Provides Technology Jobs Away from the Coasts**

A recent Brookings Institute report states that half of the new jobs within the technology sector are centralized within eight "superstar cities" located on the coasts—apart from Austin, Texas (Muro & You, 2022). But what about people who live outside of those cities? Jobs in high-tech manufacturing provide society with the

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benefit of having good-paying jobs in manufacturing firms across the country, not located within the popular coastal cities usually associated with the technology sector (Rouhandeh, 2022).

### **Provides for National Security**

The United States benefits when American-made manufacturing, especially high-tech manufacturing, is positioned to compete in such a way as to bolster national security. There are undoubtedly certain benefits to globalization. However, nations like China are beginning to compete with American manufacturing, threatening national security. The concern for national security was central to the bi-partisan effort to pass the CHIPS and Science Act of 2022 to counter China's dominance over the production of critical parts that go into communications equipment.<sup>i</sup> Notably, the U.S. Chamber of Commerce (2022) endorsed the bill to "safeguard our national security" and its economic benefits.

### **Provides Jobs for the Underserved**

A highly-functioning high-tech manufacturing industry also enriches society by providing good-paying jobs for all—specifically good-paying jobs for those who are underserved and disadvantaged by the skills gap resulting from the rapid "techification" of the economy (Hendrikse et al., 2021, p. 59; Lodewick, 2022). To address the skills gap and prepare for investments in high-tech manufacturing, the CHIPS and Science Act of 2022 addressed the need to ensure equity in the industry (The White House, 2022). As reported in a fact sheet from The White House (2022), the law creates new workforce development initiatives aimed at providing "more people from all backgrounds and all regions and communities around the country, especially . . . under-served . . . communities, . . . education and training opportunities" (Drive Opportunity and Equity section) to prepare them for jobs in high-tech manufacturing.

## **Purpose of the Project**

This project includes an investigation of organizational citizenship behaviors like resilience and innovation within a high-tech manufacturing setting through the lens of organizational effectiveness and development (OED) and organizational behavior. It also presents the correlation of these organizational citizenship behaviors to specific leadership norms that encourage employee change readiness and innovation (Willer et al., 2019).

Further, this applied doctoral project (ADP) focuses on the relationships between individual contributors, teams, and upper-level management at EM Technologies' facility in Jamestown, NY, to identify the leadership and management initiatives that can positively impact employees' readiness for change and willingness to innovate processes. Finally, the project also presents proposed concrete actions EM Technologies can take to train managers in these practices.

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<sup>i</sup> The historic CHIPS and Science Act of 2022 funds the reshoring of high-tech manufacturing in the United States and passed with widespread bipartisan support in Congress (The White House, 2022). For more information, see the fact sheet available from The White House (2022).

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## Significance of the Project

A significant outcome of this study is the identification of leadership and management practices that can positively impact employees' readiness for change and willingness to innovate processes and practices in order to

- provide a favorable return on investment (ROI) from capital investments,
- achieve stated financial growth goals, and
- reach its vision of being a premier high-tech manufacturer.

Since change readiness is one of the major keys to improving employee performance (Aduku et al., 2021), a significant outcome of the project is the identification of management attitudes and behaviors (both positive and negative) that impact employee change readiness and innovation efforts positively and negatively that then support either positive or negative organizational performance.

The researcher seeks to positively impact the partner organization by supporting its vision and goals and contributing to the knowledge available to strategic human capital management professionals throughout the high-tech manufacturing sector and other industries.

## Summary

EM Technologies is a vibrant, growing communications equipment manufacturing firm with a rich and successful history. After a period where former ownership, unfortunately, disincentivized change and innovation, new ownership is investing considerable time and capital to reinvigorate the organization and prepare it to sustain its present growth. However, despite leadership's best efforts, employees' readiness for change and willingness to innovate remains elusive.

Yet, for EM Technologies, the high-tech manufacturing industry, and society at large to fully benefit from the renewed vigor within American manufacturing, a solution is needed to equip managers and leaders with the knowledge, skills, and abilities to encourage change and inspire innovation amongst their teams and employees. In response to the need, this study identifies those attitudes and behaviors of leadership that can encourage change and inspire innovation. An analysis of these attitudes and behaviors and their relationship to employee attitudes and behaviors will be shared, along with the proposal of concrete initiatives to equip and empower managers and leaders to act as coaches and mentors, encouraging change and inspiring innovation. First, there is much more to know about the diagnosis of the problem, as presented in the next section.

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## Section 2: Diagnosing the Problem

Providing an evidence-based solution to EM Technologies' leadership team is imperative to help them inspire individuals and teams to respond to change and engage in innovation efforts positively. The organization's problem was introduced in the prior section; however, it requires a clear and comprehensive overview to deliver the most compelling case possible for any solution. Therefore, this section presents a detailed problem statement, overarching question, and guiding questions to contextualize the problem at hand.

Several analyses are needed to better inform the problem statement and associated questions. This section provides environmental, industrial, and organizational analyses that explore the complex situation in which the organization finds itself. Section 2 also includes the known facts, assumptions, and knowledge gaps associated with the problem.

### Presenting Problem

For years, the former owners of EM Technologies discouraged change and innovation. With a lofty goal to grow the business at a 22% annual rate following its acquisition in March of 2021, the ownership invested nearly \$2 million to upgrade its machinery and technology.<sup>17</sup> Due to these substantial investments, leadership knew that change and innovation would be critical to the organization's success. However, despite their best efforts, the organization's leadership has been unable to help individuals and teams react positively to change. Similarly, leaders have not discovered an effective way to encourage innovation effectively. The presence of the problem is reflected in employee surveys, anecdotes from middle management, regular complaints, and project delays. If the problem is not solved, the organization will be unable to provide consistent returns on investment and will be unable to achieve its stated goal to grow at a 22% annual rate.<sup>18</sup>



Further, suppose an effective solution to the problem remains elusive. In that case, EMT cannot take advantage of the ongoing boom and national, state, and local investments in the high-tech American manufacturing industry. To better examine the problem, environmental, industrial, and organizational analyses are needed.

## Environmental Analysis At-A-Glance

### Socio-Cultural Factors

Several socio-cultural factors impact the environment in which high-tech manufacturing operates. For example, the industry is not immune from the significant nationwide demographic shift. The U.S. Census Bureau analyzes that the nation's non-white population will continue to grow up to 200% in the coming decades (Vespa et al., 2018, p. 4).

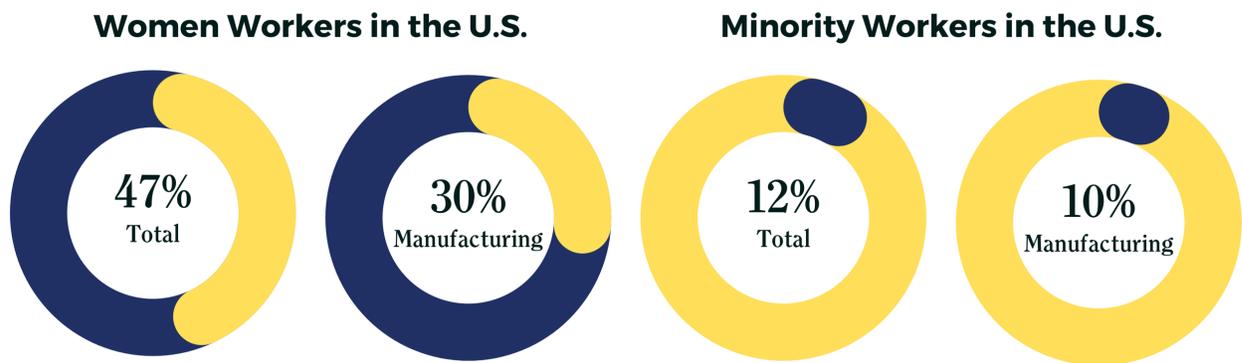


Figure 2. Diversity Data U.S. Versus Manufacturing Sector.

However, as Figure 2 shows, racial and ethnic minorities only make up 10% of manufacturing jobs (Deloitte, n.d., p. 5). Further, recent estimates from the Census Bureau show that women make up almost 30% of the workforce in manufacturing but are nearly half of the total population (Laughlin & Christnacht, 2017, para. 2). As Reyes et al. (2021) state, socio-cultural diversity is vital to the national effort to regain the remaining 41% of jobs lost during the COVID-19 pandemic. Strikingly, there are now more generations in the workplace than ever, presenting new management challenges for business leaders (Purdue Global, n.d.). Automation is also a factor, as indicated in Figure 3.

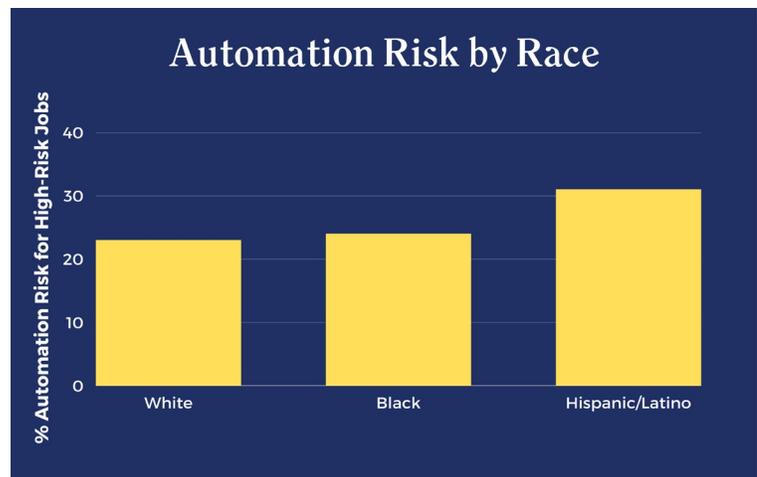


Figure 3. Automation Risk by Race (Zippia, 2022, Automation section).

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## Technological Factors

The impact of technological advancements on the national environment cannot be overstated. Due to the rise in consumer demand for connected and high-speed devices, firms must increase production (Straits Research, n.d.). Further, automation technology will replace an estimated 20 million jobs by the decade's end (Cellan-Jones, 2019, para. 1). Unfortunately, ethnic and racial minorities bear an outsized burden of the risk of job replacement caused by automation (Zippia, 2022). The combined effect of the national labor shortage and increased demand makes the impact of technological factors even more substantial, as all firms face increased pressure to incorporate automation to reduce costs while keeping up with demand.

## Economic Factors

There are many high-impact economic factors impacting the national environment. Historic inflation, labor shortages, rising labor costs, and aggravating supply chain disruptions resulting from the COVID-19 pandemic negatively impact all firms (Anderson & Murray, 2022). See Figure 4 for historic inflation rates. Due to historic inflationary pressures, focus on economies of scale is paramount (Bureau of Labor Statistics, n.d.). Improved processes and the innovative use of technology provide for economies of scale. As firms grow, they can invest in more advanced technology and production processes to increase productivity and lower costs (McGrath & Hoole, 1992). For example, they may use automation and robotics to streamline production or invest in research and development to create new, more efficient production processes. These improvements can reduce costs by increasing efficiency and reducing the number of mistakes made during production.

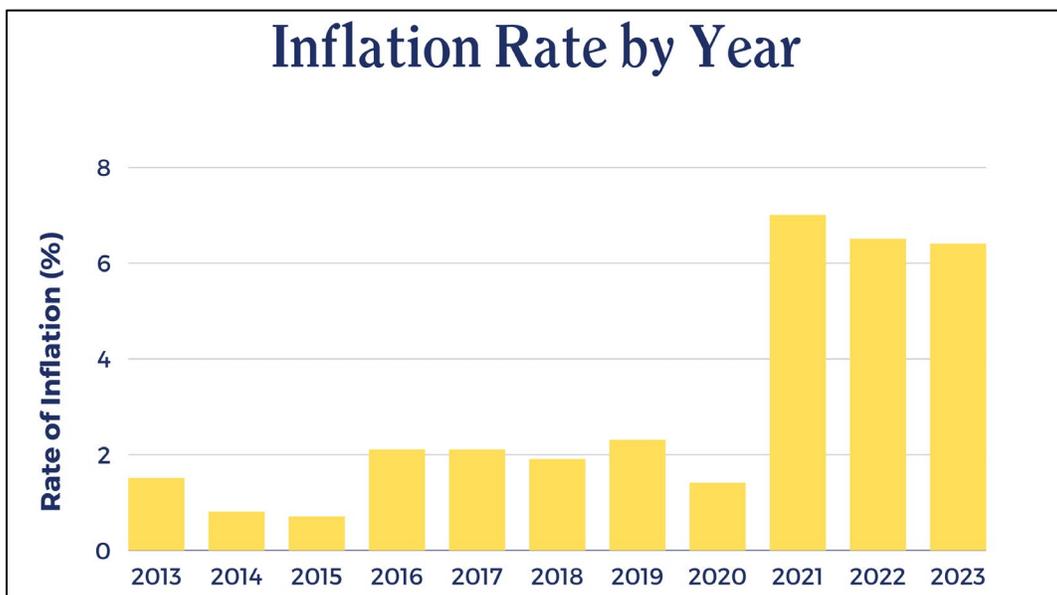


Figure 4. U.S. Inflation Rate by Year (Davis & Benson, 2023, Inflation Rates Chart).

## Environmental Factors

Increased pressure on all firms to consider the environmental impact of their operations is exceptionally high. The U.S. Environmental Protection Agency (2022) has specific regulations on the communications equipment manufacturing sector,

ranging from greenhouse gas emissions to air toxins, ozone-depleting chemicals, and many others. Beyond government regulations, all firms must also heed consumers' demand for environmentally friendly products (First Insight, 2022). Considering the manufacturing sector is the third largest industrial contributor to greenhouse gas emissions, firms in this industry have a long way to go (Roberts, 2020).



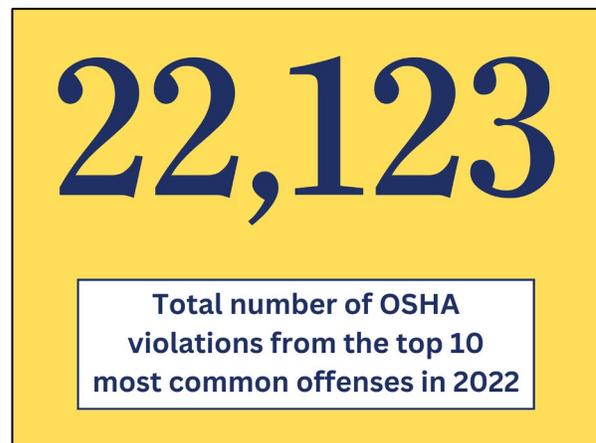
### Political Factors

After years of a political impasse preventing federal investments into the nation's technology infrastructure, firms are now enjoying fresh political steam due to recent bipartisan legislation. The CHIPS and Science Act of 2022 is a historic investment into the tech economy, allocating \$11.2 billion to advanced technology research and development alone (Ambrose et al., 2022, Agency Authorizations section). However, due to the Republican takeover of the U.S. House of Representatives following the 2022 midterm elections, plans for massive spending cuts were reported (Rappeport, 2023). Accordingly, the long-term sustainability of the bipartisan political support for continued investments such as the CHIPS and Science Act is uncertain.



### Legal Factors

The ever-evolving legal landscape continually impacts all organizations. Legal issues such as data and privacy breaches, rapidly increasing international regulations, workplace safety, variances in state-by-state employment law, and product liability put immense pressure on firms (University of Southern Indiana, 2022). In 2022, there were over 22,000 OSHA violations from the top 10 offenses alone (Bullard, n.d., The Top 10 section).



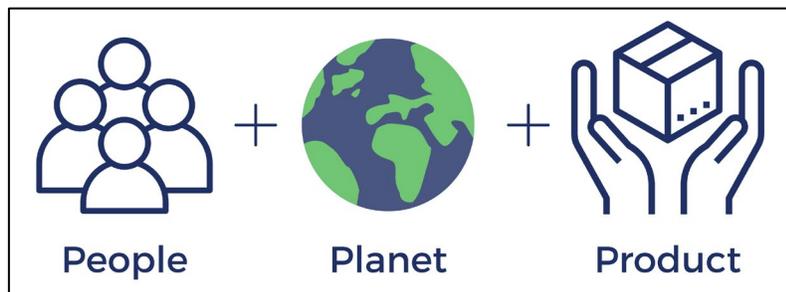


Figure 5. Manufacturing Ethics Framework (Silverglate et al., 2021).

### Ethical Factors

Many ethical factors impact the national business environment. Most pressing is the rising concern about the role of artificial intelligence and automation in society (Pazzanese, 2020). There are also growing concerns about waste and sustainable water use throughout the economy (Silverglate et al., 2021). Ethically Produced (n.d.) describes a simple and compelling framework for ethical business as “People + Planet + Product” (para. 1), as shown in Figure 5.

compris[ing] establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment. (U.S. Census Bureau, n.d., para. 2)

## Industry Analysis At-A-Glance

### Overview

EM Technologies is a high-tech communications equipment manufacturing firm with the NAICS code 334220. This industry is described as

### Fact Sheet

Recent industry data highlights the key metrics (SICCodes, 2021, NAICS Code 34220 Description section).



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## Major Industry Trend: Innovative Innovation

According to a recent study, a few notable major entrants into the communications equipment industry demonstrate a significant industry trend toward product—and especially service—innovation (ABI Research, 2019). One might call this "innovative innovation" as it goes beyond traditional product improvement to process innovation. Some of these organizations are long-existing companies that are modernizing or filling gaps in the industry through innovation, and some are new entrants promising to disrupt an already crowded field (ABI Research, 2019). Disruptive companies like Fractal Antenna Systems and Metawave are among the organizations leading these efforts.



Fractal Antenna Systems' new products and innovative approach to 5G-enabled antennas make them a formidable major entrant into the industry. They are impressive, not because they are necessarily new—they were founded nearly 30 years



ago—but because their technology and offerings introduce novel and cost-effective solutions to the industry (Fractal Antenna Systems, 2023). Founded in 1995, Fractal holds only a .00389% market share based on its latest self-published information (Zoom Info, n.d.). If Fractal is not necessarily a "new" entrant, and its market share is relatively small, why should it be included among major players in the industry?

they are, in fact, new to the field. Many of their notable products and services could be named, but Fractal's recent disruptive entrance into the 5G field is nothing short of pioneering. Fractal was an early entrant in the 5G market. It was selected to install its cutting-edge products in large sports stadiums because of their offerings' comparatively small size and ability to have only one installation technician on a project (Business Wire, 2019). The company's approach to 5G technology recently led them to expand their production capabilities—indispensable to maintain economies of scale (Fractal Antenna Systems, 2021)—to keep up with increasing demand in early 2023. The company might be well-established, but its focus on scalability fills a niche in the market, allowing its customers to receive cutting-edge technologies at a

The company is capitalizing upon technology to help them to act as if



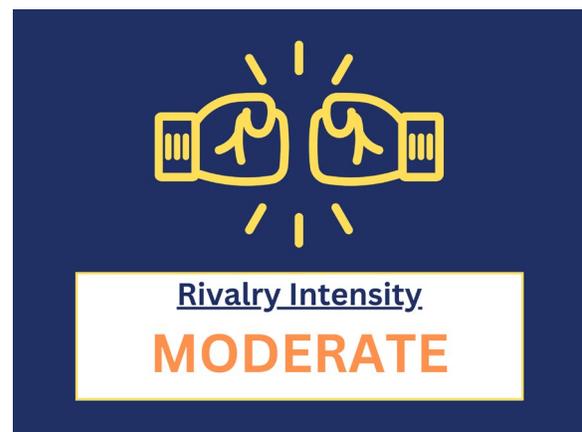
competitive price and decreased installation time. As Mankins (2022) elaborates, in an increasingly challenging world and workplace, organizations must adapt and innovate in order to maintain their competitive advantage. Fractal Antenna Systems is an innovative player in the high-tech manufacturing industry and is a model to be followed.

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Further, Metawave is another new entrant within the communications equipment manufacturing industry. Founded in 2017 by Dr. Maha Achour, a leading expert in the semiconductor and RF fields, the company is already disrupting the industry with its vehicle and aerial imaging technology (CB Insights, n.d.). The organization holds a .0267% market share, which is still impressive for a company under 10 years old (CB Insights, n.d., Financials section). Despite its relatively young age as an organization, Metawave enjoys notable competitive advantages over other established competitors. For example, its "building-block architecture approach" enables greater flexibility and adaptability for its products, unlike a one-size-fits-all approach taken by competitors (Metawave, n.d.-a). Like Fractal, Metawave focuses on updating and streamlining its infrastructure and installation processes, keeping costs low for the organization and its customers (Metawave, n.d.-a). The company also prioritizes public visibility, with its appearance at the Detroit Auto Show and its founder's inclusion on an influential "50 over 50" list (Metawave, n.d.-b). As with Fractal, Metawave is a model new entrant to follow due to its rapid growth, innovative and scalable product offerings, and public visibility.

### Porter's Five Forces

**Rivalry Intensity** Rivalry intensity is one way to determine the level of competition in an industry (The William and Anita Newman Library, 2023). According to recent industry research, there is a great deal of variance in rivalry intensity in the broadcast and communications equipment manufacturing industry—largely dependent upon the industry's segment and geography, which is much of the new intensity in Asia (Mordor Intelligence, n.d.). The same analysis determined that there is moderate rivalry intensity while experiencing a somewhat fragmented, competitive environment. Interestingly, a significant factor enhancing the level of competition within the industry is the continued proliferation of and demand for streaming services of live events like sports and concerts; smaller, less powerful firms such as the two mentioned above are competing and succeeding against larger firms (Mordor Intelligence, n.d.). Several factors increase competition within the industry, especially the rapidly growing demand for high-speed internet connectivity worldwide. A recent Pew study showed rising demand for internet connectivity, especially within large emerging economies where many industry firms compete, specifically in Asia (Poushter, 2022).



Meanwhile, a major moderating factor that keeps the industry's consolidation at bay is the rapid commoditization of the industry's products (D'Aveni, 2015). Many of the same types of products made by a well-established firm could be purchased on Amazon and other e-commerce sites (Amazon, n.d.). As described above, successful firms are combating the trend toward commoditization by offering more innovative and cost-effective installation and infrastructure solutions. In other words, *product*

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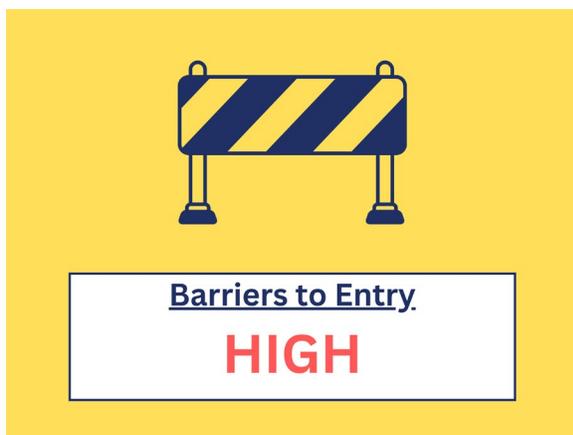
*innovation* is giving way to *process innovation*. The industry is well-suited for competition since such rivalry intensity increases the need for firms to continue prioritizing product and service innovation.

**Barriers to Entry** Significant barriers to entry in the broadcast and communications equipment manufacturing industry include government regulations, high start-up and operating costs, and existing competitor advantage.

First, government regulations pose a significant barrier to entry because of the complexity and fluid nature of federal, state, and local regulatory environments. At the federal level, the U.S. Federal Communications Commission, U.S. Occupational Safety and Health Administration, U.S. Environmental Protection Agency, and other regulatory bodies are responsible for regulating the communications equipment manufacturing industry. For example,

- The FCC sets standards and regulations for the production, distribution, and use of communications equipment to ensure that they do not cause harmful interference with other equipment. (U.S. Federal Communications Commission, 2022).
- OSHA regulates the set-up, maintenance, and use of heavy machinery in manufacturing settings (U.S. Occupational Safety and Health Administration, n.d.).
- The EPA regulates the environmental impact of manufacturing operations and seems to only accelerate these efforts under the current administration (Davenport, 2021).

In addition to federal regulations, each state may have unique and varying numbers of rules, and local municipalities may also have their own regulations and requirements. It is difficult to estimate the total number of regulations that a communications and broadcast equipment manufacturing company may need to comply with, as it can depend on many factors, including the size and location of the company, the specific products it produces, and other factors. Companies in the communications and broadcast equipment manufacturing industry need to be aware of the regulations that apply to their specific operations and to ensure that they comply



with all relevant regulations to avoid penalties or harm to their brands due to increased social awareness of corporate ethics and compliance (Siemens, n.d.).

Further, another barrier to entry into the communications equipment manufacturing industry is the high start-up and operating costs. These costs can make it difficult for new companies to enter the market and compete with established players who often have greater access to capital. High start-up costs include acquiring and setting up a

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manufacturing facility, purchasing equipment and software licenses needed to drive a high-tech manufacturing operation, and obtaining the permits and licenses required to start a business. These high costs may deter new companies from entering the market. Operating costs are also high in the industry, as high-tech manufacturing requires specialized equipment, skilled workers, and ongoing research and development to keep up with the pressure to innovate. These costs can increase the financial burden on prospective new entrants and make it difficult for them to compete with established firms.

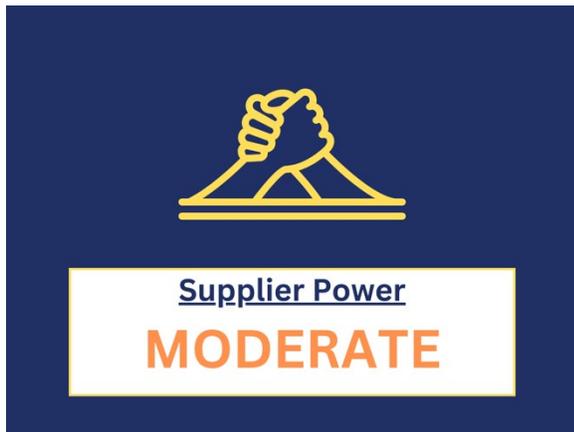
Finally, existing competitor advantage, or *incumbency advantage*, can act as a significant barrier to entry into the communications equipment manufacturing industry. Powerful players in the industry often have solid customer relationships, economies of scale, a strong brand reputation, and advanced technology (MacMillan & Selden, 2008). A recent report predicts that the global communications equipment market will continue to grow significantly, driven by the increasing demand for advanced networking solutions and high-speed internet (Acumen Research and Consulting, n.d.). Those already well-established firms can more rapidly and effectively innovate and go to market, keeping new entrants at bay. Further, since the communications equipment market is only moderately competitive, established firms have a significant advantage due to their scale, which allows them to invest more in research and development (R&D) and marketing and to offer lower prices than new entrants.

In conclusion, the intense regulatory environment, high start-up and operating costs, and existing competitor advantage are substantial barriers to entry in the communications equipment manufacturing industry.

***Threat of Product and Service Substitutes*** There is a moderate threat of product substitutes in the communications equipment manufacturing industry due to the rapid commoditization of many of the industry's products, as described previously. Notable substitutes exist for some products, such as voice-over IP systems, which often replace traditional, antenna-based systems. However, the commoditization of the industry's products limits the threat of substitutes. Because of the industry's rapid growth due to increased consumer demand for ubiquitous high-speed internet access and the rise of live event streaming services, service substitutes are a more significant threat than product substitutes. As described in one analysis by Acumen Research and Consulting (n.d.), major players in the industry are focusing on developing and innovating infrastructure and installation efforts to differentiate themselves from competitors.



**Supplier Power** There is moderate supplier power in the communications equipment manufacturing industry. Suppliers within the industry may have significant influence if they are the sole providers of crucial components or materials or if they have developed unique and differentiated materials that are difficult for manufacturers to obtain elsewhere. For example, suppliers of specialized chips or components used in the production of communications equipment may have significant bargaining power if they have a limited number of competitors. Conversely, if there are many alternative suppliers available, the bargaining power of individual suppliers is likely to be weaker. Additionally, using substitute materials or components may also reduce the bargaining power of suppliers, as manufacturers have more options available to them due to the rise of e-commerce.



Interestingly, Lacoste and Blois (2015) describe how suppliers' perception of power can impact their relationships with their key customers. Arguably, suppliers' power has increased substantially due to the global supply chain crisis due to COVID-19. As a result, supplier power in the high-tech communications equipment manufacturing industry can vary greatly depending on the specific circumstances and the supplied materials or components.

commerce resulting from the COVID-19 pandemic and its subsequent impact on traditional supply chains, all consumers and buyers have significant power (Chapple et al., 2022). Other factors like the presence of many suppliers, the high level of commoditization of products, and the availability of alternative sources of supply provided by e-commerce platforms. This results in increased competition among suppliers, which puts pressure on them to offer more satisfactory terms to buyers. In addition, the increasing use of e-commerce solutions has enabled buyers to understand the market better and compare prices, products, and services offered by different suppliers. As a result, buyers in the communications equipment manufacturing industry have significant bargaining power, allowing them to negotiate lower prices

**Buyer Power** Due to the surge in e-



more favorable delivery terms.



## Organizational Analysis At-A-Glance

### EM Technologies' Mission, Vision, and Values

In the early summer of 2022, the company's leadership came to an agreement—that one of the main ways to transform the organization was to adopt a mission, vision, and set of values by which to operate, as found in Figure 6.<sup>19</sup> These were to guide the company into the post-acquisition like a game plan, a *True North*. EM Technologies decided to capture two realities within these statements. First, the mission, vision, and values were to capture the customer-centric mindset that guided the company through its six decades in operation. The leadership believed that the level of service the company offered was vital to the past success of EM Technologies and that it would guide the company forward.<sup>20</sup>



Figure 6. EM Technologies Mission, Vision, and Values Statement (EMT, 2023).

However, the leadership wanted to capture something that was not explicit within EM Technologies' culture, namely, an employee-centered culture. The leadership believed previous administrations had wrongly put profits over people and operations over employees. Therefore, EM Technologies' leadership made it abundantly clear that the company's future would be simultaneously customer-focused and employee-focused. To put it another way, leadership believed the company could be explicitly employee-focused *for the sake of its customers*.

## Organizational Structure

Figure 7 displays EMT's organizational structure adopted in 2021. The company has gone to great lengths to flatten the organizational structure since the recent acquisition, as flat organizational structures lower bureaucracy and increase employee motivation by reducing management layers, empowering individuals and teams, and focusing on results (Pal, 2014). This type of organizational structure seems to flow naturally from EM Technologies' new mission, vision, and values. Shortly after reorganizing the management structure, the organization's senior leaders conducted a SWOT analysis to understand how each leader perceived the new organization and inform strategies for the future. That SWOT analysis can be found in Figure 8.<sup>21</sup>



Figure 7. EM Technologies' Organizational Structure (EMT, 2023).

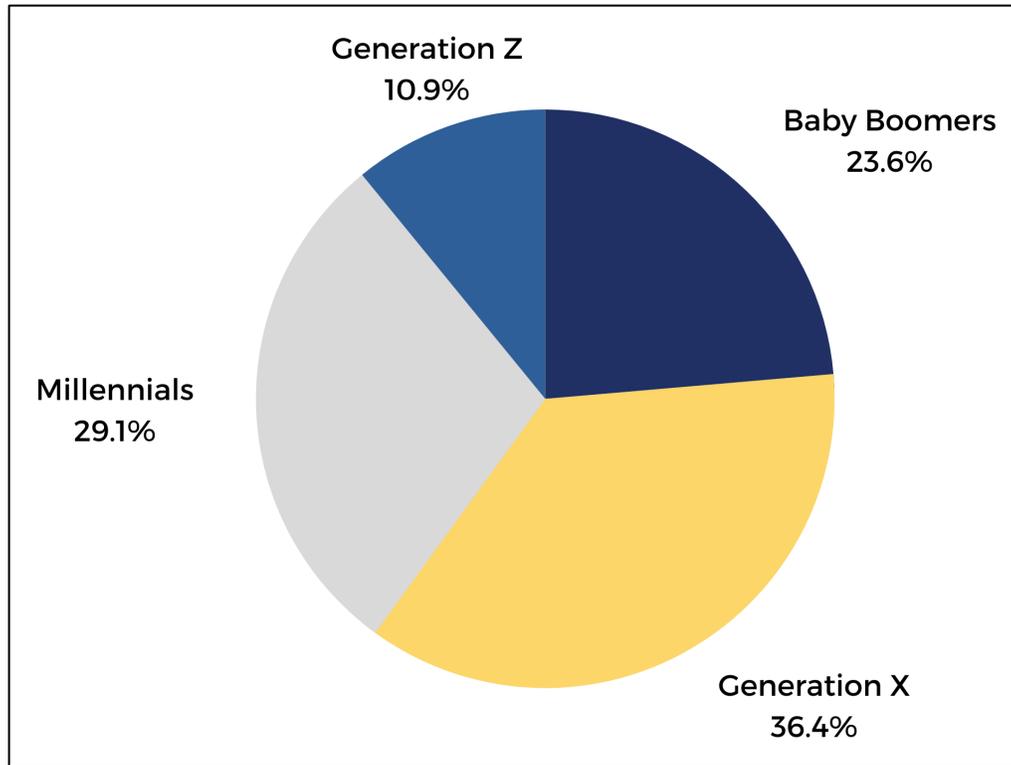


Figure 8. EM Technologies' SWOT Analysis (EMT, 2023).

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## Demographic Breakdown

Workplaces are frequently thought of as a family. As with any family, organizations often consist of one or more generations. In fact, EM Technologies' workforce consists of four of the five generations present in the workforce today, as shown in Figure 9.<sup>22</sup>



**Figure 9.** EM Technologies' Generational Breakdown. *Note.* This data was collected in April 2023.

The average tenure of employees is seven years; 62% of employees have worked at the organization for less than 2 years; 19% have worked for the organization between three and seven years; and 19% have worked at EMT for eight or more years.<sup>23</sup>

## Competitive Advantages

While much smaller than its competitors, EM Technologies Corporation is certainly a competitor within the communications equipment manufacturing industry. Because they are not a publicly traded company, there is no public information on its revenue or profits. However, since this organization employed the researcher, data was readily available. With a posted revenue for 2021 of \$10 million,<sup>24</sup> EM Technologies managed a .0034% market share (CSIMarket, 2023). Remarkable, however, is the fact that for 2023, EMT is expected to net a nearly 40% growth in revenue and significant profit margins compared to other similarly sized organizations. This growth estimate was due to several factors: a recent acquisition by a private equity firm, reinvestments of nearly \$2 million in new technologies and state-of-the-art machinery, and key hires in operations, engineering, sales, marketing, and finance.<sup>25</sup>

EM Technologies also has a critical competitive advantage: Its second line of business is contract manufacturing. This second line allows EM Technologies to act as its own

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supplier for most components that go into its products. The contract manufacturing division is a subcontractor for its competitors and Fortune 50 organizations. So, along with defense subcontracts, EM Technologies has other reliable revenue streams to protect cash flow and insulate it from the bulk of the supply chain shortages experienced by competitors. Another competitive advantage of EM Technologies is its small size—approximately fifty employees—which allows it to operate in a lean capacity.<sup>26</sup> It also has long-standing relationships with local community colleges and workforce development agencies to provide the necessary staffing level to support its recent growth, somewhat insulating the organization from the labor shortage experienced by many of its competitors. While EM Technologies is much smaller in terms of market share, its growth rivals its competitors.

## Diagnosing the Problem

A flourishing, high-performing manufacturing industry benefits local communities that benefit from these firms' presence and the sustainable employment they bring. As detailed above, the national economy also benefits when high-tech manufacturing performs at a high level.

After a long period of decline in American manufacturing, recent investments into the sector have led to a renewed vigor upon which all firms must capitalize. The manufacturing industry is quickly changing, utilizing automation and other cutting-edge technologies to increase productivity and profits. Similarly, product and process innovation is a key competitive advantage for major competitors in the high-tech manufacturing sector.

The above environmental, industry, and organizational analyses show the utter need for firms in the industry to adapt to economic and technological changes and to focus on product and process innovation. However, EM Technologies is behind the curve regarding change readiness and innovation efforts to remain at parity with its competitors, who are, in fact, succeeding in those two areas.

After a long period in which the former leadership of the organization disincentivized change or product/process innovation, new ownership has invested considerable amounts of capital into the organization to update technology and machinery, hire top talent, and improve systems and processes—all aimed at increasing the organization's ability to swiftly and creatively solve the problems associated with product/process change and innovation. To support these investments and provide favorable ROI, organizational leaders have begun to prioritize change and encouraged teams to focus on innovation.

The following sections identify the known facts, assumptions, and knowledge gaps associated with the problem, supporting the development of a problem statement and the guiding questions to aid the completion of secondary research.

## Known Facts, Assumptions, Identification of Knowledge Gaps, and Possible Solutions

**Known Facts** Several facts about the organization and its problem are clear. First, it is obvious from informal conversations with long-tenured employees that previous owners desired to protect the organization's valuation to prepare for potential acquisitions. Because they desired to mitigate risk, executives ordered managers to halt any change that could potentially negatively impact the organization. They also discouraged individuals and teams from pursuing product and process innovations that required capital investments in order to maintain positive cash flow through a potential acquisition.



**EMT has been in business for 60 years and the last five years plus have been quite successful. Many things need to be done better, but drastic change may not be the best idea.**

Further, it is also well-known that new ownership invested significant capital into the organization post-acquisition to improve EMT's systems, machinery, and technology. New executives and upper-level management consistently reiterate the need to change and innovate.<sup>27</sup> Yet, despite these investments and encouragements from executives and upper-level management, change and innovation efforts have been incredibly slow at best. Evidence of this phenomenon includes

- anecdotes from frontline managers, who report conflicting instances in which employees generally support new ownership, but issue criticisms like the one above that change and innovation are not needed;
- increased emotional outbursts and insubordination, as demonstrated in Appendix B;
- a higher turnover rate compared to the industry average;<sup>28</sup>
- poor responses in the company's annual employee survey regarding the proposed changes to the company's processes and efforts to innovate; and
- failed or stalled initiatives aimed to increase and aid innovation and new ways of working to embrace technology.<sup>29 30</sup>

In these ways, it can be reasonably said that EMT's problem, as described here, is a strategic *wicked problem*, a seminal concept among strategists, as it meets each of the framework's criteria:

- many stakeholders with varying priorities,
- complex and interrelated variables,
- fluid and eludes solutions, and
- little to no precedent to gauge it (Camillus, 2008).

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**Assumptions** There are at least three assumptions associated with the problem. First, the former ownership's actions had a long-term effect on current employees, which the principles of industrial-organizational psychology might help to explain. Second, executives and upper-level management genuinely desire to foster an environment where employees succeed and flourish. Third, as rational human beings, EMT's employees have the capability to learn, change, and grow as long as they work in a rewarding and supportive environment.

**Knowledge Gaps** Several knowledge gaps exist surrounding the problem. Additional investigation is needed to determine the long-term impact of discouraging change and innovation. Perhaps this is the reason why many employees and teams insist on following the status quo. Industrial-organizational psychology concepts like organizational behavior and design thinking could be explored to contextualize the problem scenario. Further, it is unclear why there is a stark disconnect between executives' commitment to change and innovation and employees' resistance to the same. Could there be a missing piece to their approach, leadership attitudes and behaviors, or communication style? Finally, it is still unclear whether there is a connection between management attitudes and behaviors within specific organizational units and those units' or individuals' responses to change and innovation efforts. Further investigation and research are needed to close the knowledge gap in those areas.

**Possible Solutions Associated With the Problem** Two hypotheses and potential solutions were identified at the start of the study, ahead of conducting the secondary and primary research as part of the problem-based approach to the research. Following completion of the study, both proved to be logical early assumptions. One proposition related to the lack of intrinsic motivation and resistance to change among employees at EM Technologies and the likelihood that it was primarily due to a deep-rooted organizational culture prioritizing risk mitigation and profit sustainability over innovation and adaptation. This enculturation was further reinforced by the previous management's focus on maintaining the status quo, leading to employees developing a sense of complacency and aversion to change. Research findings supported the anticipated resolve: To address this issue, EM Technologies' new leadership must implement a comprehensive, multi-pronged approach that involves a shift in organizational culture, targeted training and support, and a transparent communication strategy to increase employee engagement, motivation, and willingness to embrace change and innovation. This hypothesis is well-founded on the research surrounding organizational development. For example, Willer et al. (2019) list psychological factors among the six elements needed to maximize ROI within organizations by enabling the processing of new information and solving problems. It was also hypothesized that there is a missing step between leadership's consistently stated desire to change and innovate and teams'/individuals' actual efforts to do so. A review of organizational behavior principles and best practices was expected to be informative of leadership's attitudes and behaviors. As initially thought, the secondary and primary research findings pointed to what was missing to effectuate the desired change. The specifics are detailed in Sections 3 and 4.

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## Problem Statement

High-tech manufacturing firms are facing many challenges, such as rapid technological advancement, increasing competition and commoditization, and pressure to scale operations due to recent public investments. On the national front, the White House (2022) has recognized the need to boost manufacturing in the United States as a means to support the economy and remain competitive globally. To that end, legislation has been enacted. The Bipartisan Infrastructure Law will “provide \$550 billion over fiscal years 2022 through 2026 in new Federal investment in infrastructure, including . . . roads, bridges, mass transit, water infrastructure, resilience, and broadband” (U.S. Department of Transportation, n.d., para. 1). Also, the CHIPS and Science Act of 2022 invests more than \$50 billion into high-tech manufacturing and \$1.5 billion to bolster communications equipment manufacturing alone (The White House, 2022, para. 8). However, while the legislation is favorable to manufacturing, high-tech manufacturing organizations are grappling with scaling operations in response to recent investments. The challenge for high-tech manufacturers is to become more digitally savvy and invest in innovation to remain viable and scale operations to handle these investments in the new American manufacturing renaissance (McKinsey & Company, 2022).

The accelerating pace of technology puts pressure on manufacturing firms to continuously learn and innovate (Pisano, 2015), but the ability to scale operations accordingly is quite slow. In response, over 100 leading manufacturers around the world have joined together to showcase best practices for the Fourth Industrial Revolution (Global Lighthouse Network, n.d., What is the Global Lighthouse section) in recognition that sustaining a focus on cross-functional collaboration and adopting new innovation strategies are crucial for harnessing the creation of new knowledge in the Industry 4.0 age (Obradović et al., 2021). Still, it can take significant time for smaller manufacturers to reap those same benefits as they have limited resources to expend for collaboration, which has its own risks. Meanwhile, competition in the communications equipment manufacturing sector has intensified both in the United States and abroad (Mordor Intelligence, n.d.), and this increased level of competition, together with the commoditization of industry products, present existential challenges for firms that struggle to embrace change or innovate (De Selding, 2022). There are also disruptive firms in the industry, such as Fractal Antenna Systems, that strategically embrace technological change and have begun to focus on product and process innovation to maintain their competitive edge (Fractal Antenna Systems, 2023). The general problem is that lagging high-tech manufacturing firms are at risk due to rapid technological advancements, increasing global competition and product commoditization, and the pressure to scale operations. Moreover, the rising factor costs related to sustainability, automation, and supply chain disruption may erode or flatline the margins of nonresponsive or lagging firms over time (Fursaro & Rahilly, 2022). EMT may miss out on the new American manufacturing renaissance if they cannot effectively and rapidly respond to and embrace change and innovation (Rastegar, 2021).

EM Technologies' specific problem is that despite their best efforts, EMT's leadership has not discovered the most effective way to motivate individuals and teams to

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embrace change, product and process innovation, and the new ways of working required to fulfill the high-tech firm's newfound mission, vision, and values.<sup>31</sup> Organizations cannot lag behind change and innovation due to rapid technological development (Verganti et al., 2020), especially in the high-tech manufacturing industry. However, for several years before its 2021 acquisition, EMT's employees and teams were disincentivized to change and innovate. Instead, they were required to mitigate risk and safeguard the organization's ability to earn sustainable profits without the prior owners making further investments. EM Technologies' new leadership strategy is for the organization to adapt to the market and scale through product and process innovation, but employees are resisting. For example, an organization-wide effort to implement team and individual KPIs failed, with many employees objecting to the efforts to set and track goals.<sup>32</sup> Despite multiple training sessions and hands-on workshops, teams or individuals have not widely adopted the major investment in cloud-based collaboration and productivity software, with only 10% adoption.<sup>33</sup> Similarly, implementation of the powerful task and project management platform remains sluggish, with just 25% of employees using the system.<sup>34</sup> These and other significant initiatives were designed to increase productivity, communication, and accountability as the organization undergoes change and innovation efforts, but they have not been widely accepted or successful. Moreover, absenteeism is now up 52% since 2021,<sup>35</sup> and turnover (42.5%)<sup>36</sup> is higher than the national average for manufacturing (39.9%; U.S. Bureau of Labor Statistics, n.d.). EM Technologies must find an effective solution to this problem to foster a positive and productive workplace environment for its employees, provide favorable ROI to new ownership, and remain competitive in the rapidly changing high-tech industry.

## Overarching Question

This study investigated why EMT's post-acquisition leadership has yet to be effective at inspiring change readiness and innovation. Further, an evidence-based solution and change management plan will be provided to bridge the gap between the organization's current and desired states to apply the research findings of this study to EM Technologies' leadership. The following overarching research question guided this study:

How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?

## Guiding Research Questions

This inquiry proposed an in-depth investigation and analysis of the actions leaders can take to encourage change and innovation. Specific guiding questions focused the investigation, analysis, and exploration of potential solutions, keeping the study within scope and helping identify the means to bridge the gap between current and desired organizational states:

- What lessons can be learned about successful post-acquisition attempts to change the strategy, structure, culture, and human capital of an organization?

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- How can leaders best motivate individuals and teams to embrace change, product and process innovation, and new ways of working?
  - What role does leadership style play in motivating individuals and teams to embrace change, product and process innovation, and new ways of working?
  - How do cross-functional collaboration and knowledge sharing contribute to fostering an environment that supports change, innovation, and new ways of working?
  - How does the level of employee engagement and commitment influence their willingness to embrace change, innovation, and new ways of working?
  - How can organizations create and sustain a learning culture that supports continuous improvement, change, and innovation?
  - What are the key competencies, skills, and behaviors required for employees and leaders to adapt to and promote change and innovation effectively?
  - How can an organization design and implement a total rewards strategy that motivates individuals and teams to embrace change and innovation?
  - What benchmarks have other manufacturing firms used to successfully navigate change and innovation challenges, inclusive of change readiness and innovation measures?
  - How have other studies used gap analyses like the Nadler-Tushman model and others to help organizations understand how to bridge the gap between current and desired states of leadership and employee attitudes/behaviors related to change readiness and innovation efforts?

## Scope

To provide an effective change management plan to increase change readiness and innovation among EMT's employees, the scope of the study needs to be elaborated upon. The scope includes assumptions, limitations, and delimitations to establish adequate boundaries and focuses of the inquiry within the context of the research problem and the overall aims of the study.

## Assumptions

Outlining the assumptions of a doctoral-level study is essential to ensuring the weaknesses of the research are mitigated as much as possible to provide actionable research for management practitioners (Ford et al., 2005). With that in mind, a few assumptions were identified in this study. First, it was reasonably assumed that executives genuinely wished to embody their vision and mission and, accordingly, provided accurate and unbiased information to the researcher. Second, because the researcher served in the role of the senior human resources leader in the organization, it was assumed there would be some level of bias involved in the analysis of the organization. Therefore, to mitigate the inherent bias, the scholarly distance between the researcher and participants was intentionally established when planning the methodology. Third, the researcher strived to objectively analyze the organization through the lens of an outside consultant, aided by scholarly reviewers. A fourth assumption is that the organization wishes to adapt and change to succeed in the marketplace and will make every effort to apply the research findings and implement the recommendations of this study accordingly.

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## Limitations

Research limitations are "constraints placed on the ability to generalize from the results [of a study]" (University of Southern California, 2022, Limitations of the Study section). Hence, these limitations must be described at the onset of a study to inform the research analysis. This ADP focused on one organization with approximately 50 full-time employees within a specific niche of the high-tech manufacturing sector at one point in time in the organization's long history. Therefore, the results may not be widely generalized to the entire manufacturing sector, other industries, or other points in an organization's history or lifecycle. Moreover, as displayed in Figure 8, just over 10 percent of the employees are members of Gen Z, while other generations have nearly double or triple the representation. Therefore, a second limitation of the study is that any insights from employees could lack critical information from the youngest employees. Notwithstanding, the continual aim of this study was to provide research-based solutions to inform practitioners within the industry and across other sectors as well as scholars in the field, and to be inclusive regarding participant representation and input.

## Delimitations

Research delimitations are those self-imposed assumptions and shortcomings of researchers that can impact a study (Theofanidis & Fountouki, 2018). This study's delimitations include efforts to focus on the relationships between leaders/managers and employees at one organization: EM Technologies. Therefore, this study may not be generalizable to another organization of the same size or NAICS code because these relationships are built upon decades of interpersonal history. However, this study strives to provide research-based solutions that can inform other scholar-practitioners as much as possible.

## Summary

This section detailed the environmental, industry, and organizational analyses in order to provide the most detailed information about the context of the problem as possible. Major entrants into the industry showed the importance of product and process innovation and informed the diagnosis of EMT's wicked problem, overarching question, and guiding research questions. Lastly, this section concluded with the scope of the study, as well as the assumptions, limitations, and delimitations, to inform the review of the literature and further research following in the next sections.

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## Section 3: Exploring Potential Solutions

### Exploring the Problem

The previous section outlined the problem statement and guiding questions necessary to explore potential solutions to persistent opposition to change and innovation among EM Technologies' employees. This section contains a comprehensive literature review that examines the questions in depth to gain a better understanding of the problem and insights into potential solutions based on scholarly and practitioner literature. Various relevant sources, including scholarly research, industry, and practitioner resources, have been used in this review.

### Perspectives on the Problem

EM Technologies' leadership is wrestling with a workforce resistant to change and innovation, which is adversely impacting the company's growth and competitiveness in the rapidly evolving high-tech manufacturing industry. This problem has resulted in numerous operational challenges, including low adoption rates of new collaboration tools, productivity software, and project management platforms.<sup>37</sup> It has also led to the organizational struggles of increased absenteeism and a high turnover rate. EM Technologies must develop an effective strategy to nurture a positive, change-ready, and innovation-apt work environment to address this problem and ensure a consistently favorable ROI to new ownership. This comprehensive review will address several guiding questions to clarify EM Technologies' problem and provide compelling actions to inform potential solutions.

### Change in Strategy, Structure, Culture, and Human Capital

To ensure the successful integration of organizations throughout an M&A, it is essential to consider changes in strategy, structure, organizational culture, and human capital that occur post-acquisition. As the business environment rapidly changes, M&As have long been a popular growth strategy for firms seeking to expand their market reach, capabilities, and resources (Cartwright et al., 2012). In fact, according to PwC (2023), despite a pandemic-era slowdown, manufacturing M&As have already returned to pre-COVID levels—even amid the uncertain economic environment. See Figure 10. Consequently, organizations involved in M&A activities must clearly understand the factors contributing to post-acquisition success and the challenges and strategies for managing organizational change effectively. For ease of reference, Appendix C includes a table to categorize and summarize the specific lessons discovered during the literature review, as expounded on in this section.

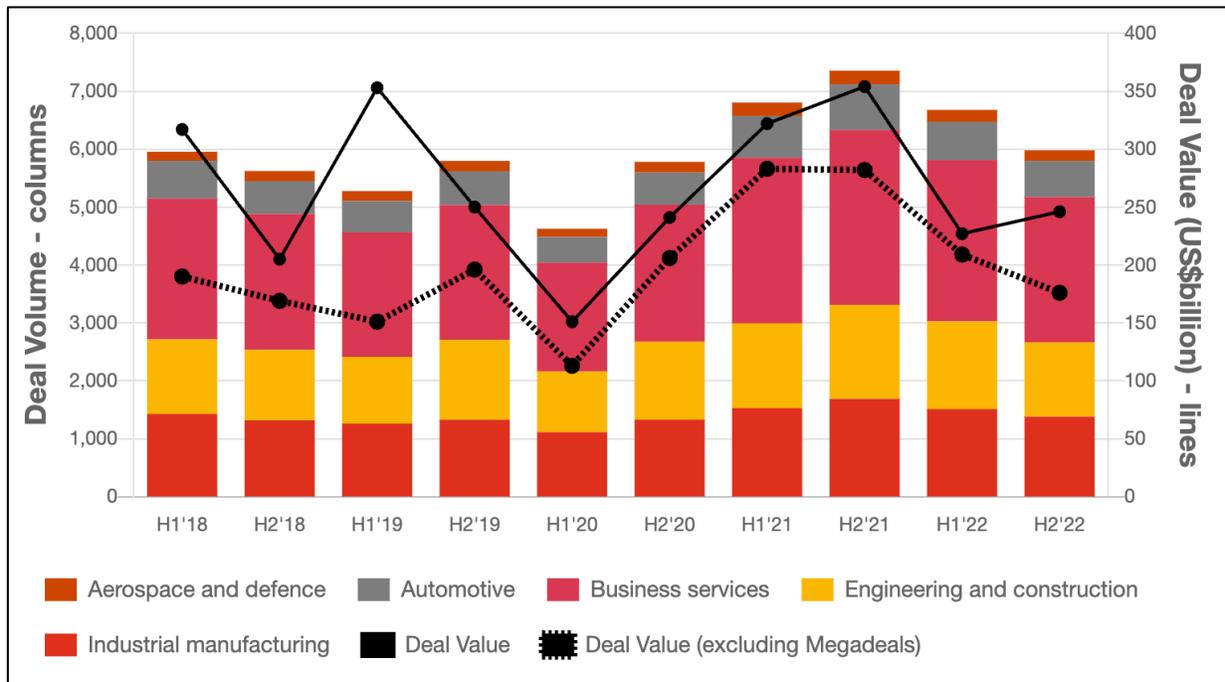


Figure 10. M&A Deal Volume 2018–2022 (PwC, 2023, Industrial and Services Deal Volume section).

### Integration of Strategy and Structures

Execution of the M&A integration process, first and foremost, begins with the realization that it is an ongoing leadership activity. Integration is indeed ongoing—not a one-off or discreet process (Ashkenas et al., 1998). Not only is it an ongoing process, but ensuring integration efforts' success is primarily the role of senior leadership (Zhang et al., 2014), who then prepares functional managers to execute the M&A strategy (Clarke et al., 2020). Doherty et al. (2016) also argue that the success or failure of an M&A largely depends on the actions of M&A leaders. Again, a successful M&A is “contingent upon . . . leadership” (Berkow, 2017, p. 10). Clearly, leaders are responsible for ensuring M&A success. To that point, O’Neill (2017) argues that one of the primary challenges leaders face during an M&A is ensuring that new organizational structures align with the new culture and strategy.

Similarly, Birkinshaw et al. (2000) determined that successful M&As result from the integration of the human elements and task elements of organizations. Human elements, like culture and strategy, must integrate with task elements, like processes and procedures, to ensure a successful M&A. By integrating strategy and structure post-acquisition, organizations can avoid common pitfalls of poorly integrated M&As—such as loss of morale, harm to culture, negative responses to change, and an exodus of key talent (O’Neill, 2017). But what lessons exist about leadership actions to inform a successful unification of the strategy and structures of the pre- and post-acquisition organization?

Lessons from M&A failures provide considerable insights, as much is known about how leadership actions can negatively impact an M&A. Between 70% and 90% of M&A deals fail, mainly due to a lack of leadership effort to ensure an M&A integrates with a

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specific strategic goal from the outset of the deal (Christensen et al., 2011, para. 1). Viegas-Pires' (2013) meta-analysis of nearly five decades of empirical research noted that adverse M&A outcomes—such as conflicting intra-organizational conceptions of teamwork, leadership, and cooperation—did require “specific management actions” (p. 362) to integrate them. A member of the Forbes Council argues that most M&A failures result from upper-level leadership’s unfounded assumptions that the pre- and post-acquisition organization’s strategies are fully integrated (Garrison, 2019). One notable example of an unsuccessful M&A due to lack of integration—specifically technology integration—is the 2012 failure of Santander to effectively incorporate technology in its ongoing merger with a Lloyds Banking Group business unit (Barnes, 2018, Vital to Include Key Team section). The importance of integration is demonstrably quantifiable: Doherty et al. (2016) provide data to show that, of the top four M&A activities, integration is the most considerable difference between high and low performers (see Exhibit 1). The literature indicates thus far that unsuccessful M&A outcomes are mainly due to a lack of integration of pre- and post-acquisition organizations. So, if integration post-M&A is the chief responsibility of top leadership, and most M&As fail due to lack of integration, what actions must leaders take?

Successful M&A integration attempts start with articulating a new and compelling vision or strategy for the organization. Gomes et al. (2012) maintain that establishing clear strategic expectations can help develop effective leadership, lead to a more successful integration process, and improve organizational performance. Of Ernst & Young’s top nine M&A success steps, vision and strategy integration are number one on the list (Hoebarth et al., 2021). The importance of vision-making is also articulated by one of the leading M&A associations, which they describe as “defin[ing] the future state [of the organization]” (East et al., 2012, Ten Critical Success Factors section). Whether redefining the vision of the post-M&A organization or visualizing the future state of the two organizations, successful post-acquisition outcomes require that firms integrate their visions and strategies. Cisco provides an excellent case study indicating the crucial role strategy and vision integration plays in successful M&A. While celebrating its 200<sup>th</sup> M&A, Cisco’s now former chief strategy officer detailed how their organization prioritizes strategy and vision to ensure success (Romanski, 2017). He argues that to streamline operational challenges when they arise, Cisco focused on strategy integration from the outset of a deal (Romanski, 2017). Similarly, Boston Consulting Group (BCG, 2021) describes how they navigated a very complex merger between two large, highly regulated European energy companies, including creating and communicating a compelling merger story as central to the deal’s success. Both examples demonstrate that successful M&As require strategy integration as a proactive effort that allows organizations to streamline other challenges.

Yet, the actual approach organizations should take to integrate strategies largely depends upon the organizational context, according to Van Oorschot et al. (2022), including product-focused, people-focused, and structure-focused approaches. When pre- and post-merger organizations work on the same products but in different locations, they can use a *product-focused* strategy for integration. This strategy emphasizes collaboration and the similarities between the organizations. If the organizations operate together, a *people-focused* approach is used to build trust and familiarity among people. A *structure-focused* approach prioritizes innovation and

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collaboration when pre- and post-M&A organizations complement each other but work separately (Van Oorschot et al., 2022). Organizations must help employees understand their new organizational context in this approach to mitigate misunderstandings and misalignment.

Therefore, it is incumbent upon organizations that wish to foster change and innovation to focus on structural integration as well. Cartwright et al. (2012) define these organizational structures as the formal decision-making processes in an organization that must align with the goals of the newly formed entity. Lest leaders assume these integration efforts can be achieved easily or quickly, Hyde and Paterson (2001) maintain that organizational leaders must be explicitly proactive in managing the structural integration process—generally and specifically. Generally, this process may involve reevaluating and refining existing strategies, eliminating redundancies, and identifying opportunities for cooperation and new value creation (Gomes et al., 2013). Specifically, changes in the organization’s structure, such as the consolidation of departments, allocation of resources, and the establishment of new reporting lines, are vital for facilitating effective integration; these activities also foster a unified organizational identity around a shared post-acquisition mission (Graebner et al., 2017).

Apple is a prime example of how an organization should be structured to foster innovation and change readiness. Podolny and Hansen (2021) highlight how Apple’s organizational structures are aligned around the company’s various functions, each of which is led by a functional leader who is empowered to make critical operational decisions. The authors also stress the importance of competent and detail-oriented leaders, arguing that those two factors are critical to the level of collaboration needed to support agility and innovation. Whichever way organizations wish to integrate structures post-M&A, Ashkenas et al. (1998) implore leaders to announce any structural changes—like layoffs and changes to reporting relationships—as early as possible to avoid debilitating uncertainty and anxiety, as those negative emotions can harm effective culture management.

### **Culture Management**

Another critical factor that influences post-acquisition success is the effective management of organizational culture. In his seminal work, Edgar Schein (1985) defines organizational culture as

a pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration—that has worked well enough to be considered valuable and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p. 9)

Schein’s (1985) concept of culture assumes that changes will occur outside the organization; an organization’s culture is an internal force that either allows or inhibits its ability to react and adapt to those changes. By locating an organization’s culture squarely within the context of its adaptability to problems and challenges, Schein’s definition suggests culture is not an entirely intangible concept; it is the invisible—

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albeit practiced and perceived—environment in which an organization responds and adapts to real-time situations. One author concisely summarizes Schein’s concept of culture by highlighting internal cultural factors such as generating a shared organizational language, defining group boundaries, distributing power and authority, developing norms of interpersonal behavior, defining punishment and rewards, and providing language to explain the inexplicable (Cecil, 2013). Clearly, company culture is far more than ping-pong tables and pizza parties (Hanlon, 2021). A healthy organizational culture is an enabler of change.

Because culture enables or inhibits an organization from reacting to change, the role of organizational culture in post-acquisition integration has been widely recognized as a critical determinant of M&A success or failure (Luthans et al., 2015). Differences in the understanding of an organization’s culture can present significant challenges, as they may lead to misaligned values, practices, and behaviors that hinder the effective integration of the organizations (Schweiger & Goulet, 2005). In fact, one study found that 65% of M&A leaders said cultural issues prevented value creation during the M&A (PwC, n.d., para. 1).

Consequently, firms need to identify and understand the cultural disparities between the organizations and develop strategies to bridge the gap between intangible culture and real-world interpersonal interactions. This could involve promoting transparent communication, as Ashkenas et al. (1998) suggested, participating in initiatives that facilitate cultural integration (Hanlon, 2021), or engaging in any other activity to enhance cultural adaptability (Luthans et al., 2015). Again, Cisco is an excellent standard for demonstrating successful cultural management: Culture management is successful only by ensuring that the intangible aspects of culture actually impact real-world interactions between stakeholders (Boynton, 2020). Similarly, Viegas-Pires’ (2013) meta-analysis includes specific management insight into how culture influences interpersonal interactions in an M&A context. The author insists that leaders bear the greatest responsibility when it comes to managing culture and calls for M&A leaders to ensure

- an “us versus them” mentality does not foment,
- one party does not feel inferior to the other,
- one party understands the ways of the other party to prevent undue conflict,
- balanced merging of both parties’ cultures, and
- a cooperative approach resulting in one unified culture (Viegas-Pires, 2013).

As with integration efforts, all the above culture management efforts require leaders to be proactive cultural forces (Fuhrer et al., 2017). In this way, an organization’s culture is designed *and* maintained to enable employees and teams to solve problems and creatively enhance organizational performance (Luthans et al., 2015). As Razzetti (2023) put it, when pre- and post-M&A cultures are not effectively managed, they often result in a “match made in hell” (Is Alignment Possible section), such as the now-infamously botched Time Warner and AOL merger in which the two organizations had cultures like oil and water. The literature makes it abundantly clear that it is incumbent upon leadership to strive to proactively integrate and protect organizational culture to ensure positive M&A outcomes. To ensure long-term

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success, leaders must commit to supporting stakeholders throughout the entire change process (BCG, 2021).

### **Human Capital Management**

Since successful M&A attempts require the things described above—organizational restructuring, reporting relationship changes, and cultural management, among others—the human resources function is an essential part of the process as those activities are all within the scope of HR (Willer et al., 2019). However, the human resources function was found by one study to be tied for the second-lowest synergy achiever during an M&A—meaning HR was second-to-last in its ability to cooperate and add value to an M&A (Fuhrer et al., 2017).

Unfortunately, HR is often overlooked or undervalued during an M&A. But since employees frequently represent an organization’s most vital and expensive resources (Miller, 2023) and M&As are becoming increasingly prevalent (PwC, 2023), the HR function is becoming increasingly crucial to the success of M&As. Employee retention, involvement, and performance in the post-acquisition stage can substantially influence the overall success of the integration process; staff turnover and opposition to change are typical occurrences (Kempton & Sarala, 2021). Consequently, organizations must develop and implement effective strategies for managing the human capital implications of the acquisition (Graebner et al., 2017). In a recent survey conducted by the Society for Human Resources Management (2023), HR professionals evaluated the effectiveness of their organizations in the top 25 human resources areas; the average effectiveness rating they gave was only 36.8%, down by 2.5% from the previous year (p. 6). This is not entirely surprising considering the complex and multi-faceted nature of the human resources function, which is responsible for so much, including but not limited to

- recruitment, selection, and employee lifecycle management,
- job analysis and training,
- compensation and benefits,
- employee motivation and retention,
- ethics and compliance, and
- conflict management and employee communication (Awu, 2022).

Regarding mergers and acquisitions, the HR function plays a crucial role throughout the entire process. This includes addressing any employee relations concerns, proactively addressing organizational challenges, evaluating the talent requirements of the new entity, and utilizing people analytics to measure the deal's effectiveness after it has been finalized (Sayed, 2022). In a case study conducted by Rodríguez-Sánchez et al. (2019), researchers also found that HR plays a vital role in the success of an M&A from start to finish. The study emphasized the importance of HR in creating comprehensive plans for due diligence, cultural integration, communication, and training to ensure a successful outcome. Bagdadli et al. (2014) and Rodríguez-Sánchez et al. (2019) refer to several activities HR professionals should consider during an M&A. However, Bagdadli et al. (2014) stress that an M&A requires a tailored approach, and HR should act in various roles depending on the unique organizational situation. These roles include strategic partner, administrative expert, employee champion, and

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change agent; HR utilizes all of them but should deploy different tactics depending on the type of M&A, according to the researcher's value (Bagdadli et al., 2014). Without this kind of effective human resources function, an M&A is more likely to fail and less likely to create value (Bagdadli et al., 2014).

Clearly, organizations cannot shy away from effective and impactful HR during an M&A, but where do they start? A study of several major organizations experiencing complex issues with post-acquisition growth, including Microsoft, Allianz, and Bayer, lists several practical lessons for human capital management to ensure success:

1. Design compelling experiences with, not for, employees.
2. Leverage enterprise technology to use future-oriented data.
3. Transform HR into a technology-powered operation center.
4. Use technology-powered HR to scale processes strategically and efficiently.
5. Revisit organizational goals and adjust success measures regularly (at least quarterly).
6. Streamline systems and experiences across functional areas (The Josh Bersin Company, 2022).

Barba-Aragón and Jiménez-Jiménez (2020) determined that effective, strategic human resources management directly and positively impacts employee innovation and reception of change. To ensure HR functions effectively and according to known best practices, organizations should adopt the standards provided by professional organizations, such as the Society for Human Resources Management (SHRM) and the Human Resources Certification Institute (HRCI). These standards cover various crucial aspects of HR, such as employee recruitment, management, training, compensation, benefits, motivation, ethics, compliance, and conflict management (HRCI, 2022; SHRM, n.d.). By aligning HR functions with these standards, organizations can ensure that crucial aspects of M&As are handled proficiently and, ultimately, more successfully (SHRM, n.d.). To measure proficiency and success, HR professionals should benchmark themselves and their organizations according to professional and industry benchmarks, like those defined by the Academy to Innovate Human Resources, which are designed to “increase business impact” (van Vulpen, n.d., Benefits of HR Benchmarking section).

## Motivation Theories for Change and Innovation

Building upon the need for strategic human resources management in facilitating successful M&A outcomes and value creation, a related imperative exists for understanding how to motivate individuals and teams to embrace change and foster innovation. This requirement ranges from the strategic level to the granular aspects of individual and team dynamics. To that end, exploring the existing literature on employee motivation theories and goal-setting practices offers promising insights. Especially within the realm of strategic human resource management, the ability to catalyze change and innovation by motivating individuals and teams has been recognized as pivotal—and essential to operational success (Jackson et al., 2014). This is particularly relevant following mergers and acquisitions, where integration challenges may necessitate reevaluating motivation and incentive strategies (Zhang

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et al., 2014). Seminal and current works on employee motivation and goal setting provide valuable insights in this context.

### **Motivation Theories**

Ryan and Deci's (2017) groundbreaking exploration of self-determination theory (SDT) offers a comprehensive understanding of human motivation that is highly relevant to change and innovation in organizational contexts. They propose that intrinsic motivation, which comes from the inherent satisfaction derived from one's work or task, is essential for stimulating change and innovation—leading to what they refer to as “willingly cooperative [and] innovative . . . interpersonal and group functioning” (p. 622). According to SDT, people are either satisfied or unsatisfied with a task, influencing their motivation to do or not to do similar things. If they derive satisfaction from a task, they will be more motivated to do it again—or at least a similar task. The converse is also true. This aligns with Amabile and Pratt's (2016) work, which argues that intrinsic motivation, such as financial incentives, can stimulate creativity and innovation more effectively than extrinsic motivators. It is worth noting that they distinguish between organic innovation and M&A-related innovation—with the latter not explicitly tied to intrinsic or extrinsic motivation (Amabile & Pratt, 2016). Fischer et al. (2019) support this claim, detailing the statistically significant relationship between intrinsic motivation and innovation performance. Nevertheless, effectively encouraging intrinsic motivation requires an organizational culture that fosters autonomy, competence, and relatedness (Pink, 2009), which signifies the importance of a highly supportive environment as an intrinsic motivator in facilitating change and innovation since feeling supported by an organization would be considered intrinsic rather than extrinsic.

Some other various theories and frameworks can help leaders motivate individuals and teams. One such theory is Herzberg's two-factor theory, which is well-suited for the dynamic and complex context of M&As or other high-change environments (Luthans et al., 2015). According to this theory, there are two various factors involved in motivation—*hygiene* and *motivators*. Hygiene factors, like pay or supervision, only decrease dissatisfaction; they do not actually motivate employees (Luthans et al., 2015). On the other hand, motivating factors, like recognition and rewards, do, in fact, motivate employees; however, organizations should focus on both to create a truly high-performing environment, according to Syptak et al. (1999). Table 1 lists the most researched hygiene issues and motivators. It is important for leaders to address hygiene issues that may demotivate employees and effectively manage and implement programs and policies that enhance motivating factors.

Hygiene Issues (Dissatisfiers)	Motivators (Satisfiers)
Company and administrative policies	Work itself
Supervision	Achievement
Salary	Recognition
Interpersonal relations	Responsibility
Working conditions	Advancement

**Table 1.** Hygiene Issues and Motivators (Syptak et al., 1999, Two Dimensions of Employee Satisfaction section).

Contingency theory is another concept that further illuminates how to motivate employees to adapt to change and engage in innovation. Contingency theory suggests there is no universal approach to structuring, organizing, or managing an organization. Instead, the most effective way to do so depends on the specific environment in which the organization operates (Luthans et al., 2015). It is a simple concept, but it has been applied in many helpful ways. For instance, Prajogo (2016) states that an organization’s activities are contingent upon its environment, which can be dynamic or competitive. Organizations respond to rapid changes in dynamic environments by focusing on product innovation. On the other hand, they respond to competitive environments by focusing on process innovation. In either case, an organization’s ability to innovate effectively is contingent upon its ability to react to and adapt to its environment. Darvishmotevali et al. (2020) also support the idea that there is no universal method for structuring an organization as it must adjust to its specific surroundings. To motivate innovation, leaders must seek to minimize bureaucracy and other barriers to *organizational agility*, which is the capacity of an organization, teams, and individuals to respond to new information and adapt to environmental obstacles. The authors assert that being agile, or able to foresee and respond to change efficiently, is crucial for cultivating an innovative environment (Darvishmotevali et al., 2020). It is no wonder that iterations of contingency theory have proven to motivate better individual and group collaboration and performance (Northouse, 2019).

### Importance of Goal Setting

Complementing motivation theories, the role of goal setting in driving change and innovation is well-established, particularly by Locke and Latham’s (2002) seminal review of 35 years of related literature, which has been cited over 2,000 times. Latham and Locke’s (2006) later research further validates this perspective, asserting that clear yet challenging goals stretch and motivate an employee, enhancing performance, stimulating innovation, and leading to new and better ways of working (Article Metrics section). Likewise, Doan (2020) conclusively determined that having an explicit innovation goal increases innovative performance and motivates employees to participate in processes to share and gain new knowledge. Field data concurs: The most innovative and adaptable organizations establish and consistently review clear goals that include opportunities for employees to stretch and expand their skills, according to Bersin’s (2021) findings. Indeed, the power of goals to motivate employees is immense, and leaders should strive to cultivate a goal orientation throughout their organizations. For goals to be effective and motivating, leaders must

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involve employees in setting them, connect individual goals with organizational goals, and ensure that goals can adapt to real-time environmental changes or challenges (Chowdhury & Hiou, 2017).

However, the motivational power of goals is not relevant to employees in general; goal setting is also crucial to motivating teams. O'Leary-Kelly et al. (1994) emphasize the motivational power of group goal-setting to enhance group performance. In their meta-analytic study, the researchers stress that participative goal setting is crucial to motivating teams since it can increase a sense of goal ownership. By involving team members in setting their own goals, organizations can increase innovation, commitment to new ways of working, and, ultimately, performance. However, the practical application of goal setting requires nuanced adaptation to the specific context of an organization (Johns, 2006). According to Alexander and Van Knippenberg (2014), setting goals as a group can be particularly motivating. They suggest that goals that can be adapted to the challenges faced by the team in real time are especially effective in promoting radical innovation. As promulgated by a pioneering human capital management software company, group goals motivate the group to collaborate and solve problems together (Workhuman Editorial Team, 2023). The platform suggests the following steps for leaders to create motivational group goals:

1. Understand the short-term and long-term goals of the company.
2. Collaborate with the team to develop a strategy to meet these goals.
3. Set SMART goals.
4. Tie individual goals with incentives and the overall goals of the company.
5. Set timelines to achieve the goals.
6. Track the progress.
7. Review the goals regularly (Workhuman Editorial Team, 2023, Steps to Set section).

A summary of relevant concepts related to motivation and associated management or leadership actions is provided in Table 2.



Concept	Leadership Actions	Sources
Self-Determination Theory (SDT)	Foster an organizational culture that supports autonomy, competence, and relatedness. Create a supportive environment that encourages intrinsic motivation.	Amabile & Pratt (2016), Fischer et al. (2019), Pink (2009), Ryan & Deci (2018)
Herzberg's Two-Factor Theory	Address hygiene issues that may demotivate employees. Manage and implement programs and policies that enhance motivating factors like recognition and rewards.	Luthans et al. (2015), Syptak et al. (1999)
Contingency Theory	Adapt strategies and organizational structures to the specific environment. Minimize bureaucracy and other barriers to organizational agility. React and adapt to environmental changes to foster innovation.	Darvishmotevali et al. (2020), Luthans et al. (2015), Northouse (2019), Prajogo (2016)
Goal Setting	Set clear, challenging goals that stretch and motivate employees. Involve employees in setting goals. Connect individual goals with organizational goals. Adapt goals in response to real-time environmental changes or challenges.	Chowdhury & Hiou (2017), Doan (2020), The Josh Bersin Company (2022), Locke & Latham (2002), Latham & Locke (2006)
Group Goal Setting	Involve team members in setting team goals. Adapt goals in real-time to respond to team challenges. Use SMART goals. Tie goals and incentives to organizational goals.	Alexander & Van Knippenberg (2014), Johns (2006), O'Leary-Kelly et al. (1994), Workhuman Editorial Team (2023)

**Table 2.** Summary of Motivation Concepts.

### Leadership Styles in Promoting Change and Innovation

Equally pivotal and interrelated to employee motivation is the role of leadership style in encouraging change and innovation. Leadership is a critical predicting factor in workplace innovation among individuals, teams, and organizations (Hughes et al., 2018). With the right kind of leadership, individuals and teams are guided and nurtured to reach their full potential, creating an environment conducive to change and innovation (Bass & Riggio, 2006). Several studies have illuminated the positive effects of leadership style—particularly servant and adaptive leadership—on fostering innovation and change. The social capital aspect of the virtuous business model (VBM; Indiana Wesleyan University, 2024) also lends helpful insights.

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## **Servant Leadership**

Articulated by Greenleaf (2002), the servant leadership style has received considerable scholarly attention due to its unique emphasis on supporting, encouraging, and empowering followers. The central principle of servant leadership is prioritizing team members' needs and focusing on supporting and empowering followers' personal and professional growth (Greenleaf, 2002). Due to its focus on empowering and supporting followers, servant leadership has been recognized for its significant contribution to fostering change and innovation within organizations (Zeng & Xu, 2020) as well as individuals and teams (Hugues et al., 2018).

By placing followers' personal and professional needs at the forefront, servant leaders create environments that are more receptive to change, according to Oliveira (2012). Faraz et al. (2019) also determined that servant leaders create a sense of psychological empowerment among their followers, increasing their propensity for innovative behaviors. This research goes along with another important concept—psychological safety. A construct widely studied by Edmondson (1999), psychological safety refers to a shared belief held by team members that the group is safe for interpersonal risk-taking and idea generation. It empowers team members to voice new ideas and challenge the status quo without fear of negative consequences. Faraz et al.'s (2019) work demonstrates why servant leadership “works” to enable change-ready and innovative followers. These types of follower-oriented leaders promote a sense of psychological safety and empowerment among team members, allowing them to take risks to attempt to offer new and innovative ideas.

Further, Sousa and van Dierendonck (2014) found that servant leadership positively impacted engagement during a merger when employees are forced to undergo a period of high demand and uncertainty. Similarly, Erkutlu and Chafra (2015) found a positive correlation between servant leadership and innovation. Conclusively, Eva et al.'s (2019) comprehensive review of 20 years of research on servant leadership adds weight to these claims. The authors provide evidence of the positive impact of servant leadership on innovation at both the individual and team levels. Their research strengthens the assertion that servant leadership, which focuses on supporting and empowering follower growth and psychological safety, can foster change readiness and stimulate innovation (Eva et al., 2019).

Putting these sources together, it becomes clear that servant leadership presents a powerful approach to promoting change and innovation. By placing followers' needs at the forefront, creating an environment of psychological safety and empowerment, and supporting team members' personal and professional growth, servant leaders can effectively cultivate a change-ready and innovative culture within their teams and organizations.

## **Adaptive Leadership**

Another approach to leadership that promotes change and innovation is adaptive leadership. Uncertainty is inevitable and can lead to creativity and innovation if embraced (Prigogine, 2019). Conceptualized by Heifetz et al. (2009), adaptive leadership involves leaders supporting and guiding their followers' adaptive work in the face of uncertainty and change. In their seminal work, Heifetz's group of

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researchers present adaptive leadership as a critical response to the unprecedented and complex challenges organizations face in a rapidly changing environment. They argue that these adaptive challenges require both technical solutions and changes in values, beliefs, roles, and relationships, which are often disruptive and uncomfortable. Another seminal study by Heifetz and Laurie (2001) further develops their perspective. They argue that adaptive leaders mobilize people to tackle tough challenges and thrive in change. The primary role of such leaders is not to provide solutions to followers per se but to create an environment where problems are identified, and solutions are co-created by the team, leading to innovative outcomes. Northouse (2019) further describes adaptive leadership as encouraging followers to adapt to challenges and changes, often necessitating a shift in values, beliefs, and behaviors. This leadership style emphasizes resilience in the face of complexity and uncertainty, creating a sense of stability that fosters innovation—balancing the need to innovate but not leaving behind followers who are more hesitant to change (Heifetz et al., 2009). Adaptive leaders anticipate the future and its challenges and articulate them to their followers to gain support for action, adaptation, and accountability (Ramalingam et al., 2020).

Yukl and Mahsud (2010) state that adaptive leadership promotes innovation and adaptation, adding that adaptive leaders are particularly effective in this regard, as they “articulate an appealing vision of the likely benefits from proposed changes” (p. 87). This point is essential to stress: Supportive, adaptive leaders must not automatically assume that all followers share the leaders’ perception of the magnitude or importance of change, as there might be misalignment between leaders’ and followers’ perceptions. Adaptive leadership requires a great deal of emotional awareness and interpersonal skills, so adaptive leaders must develop cultural and interpersonal intelligence to enhance their ability to enact transformative change and adaptation (Azevedo & Jugdev, 2022).

Northouse (2019) further validates the role of adaptive leadership in stimulating innovation by facilitating an environment conducive to adaptation and resilience. Adaptive leaders enable their teams to learn, grow, and innovate in response to evolving circumstances. It is apparent that adaptive leadership provides a powerful approach to promoting change and innovation since it enables leaders to effectively cultivate a culture of innovation within their teams and organizations by fostering an environment that encourages adaptation, resilience, and co-creation of new knowledge. Notably, it also augments and complements the servant leadership approach as they both focus on supporting followers’ growth and adaptation to change.

### **Virtuous Business Model**

The virtuous business model, though not a leadership style per se, provides a valuable framework that stresses the role of leaders’ virtuousness in organizational settings (Indiana Wesleyan University, 2024). Hein and Wilkinson (2015) articulated that the DeVoe School of Business’ distinctive take on virtuous leadership involves the ethical development of three organizational capital forms: economic, social, and spiritual (i.e., transcendent). In particular, the virtuous development of social capital informs how leaders can promote change and innovation. As the literature shows thus far, for

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leaders to encourage change and innovation, they must support the needs of their followers (servant leadership) and promote resilience and growth in response to changing circumstances (adaptive leadership). With this in mind, the virtuous business model's emphasis on developing relationships (or social capital) with followers is "to provide for the relational needs . . . of people" (Hein & Wilkinson, 2015, p. 12). These leaders also create a culture for "open discussion . . . fostered throughout the organization" (Hein & Wilkinson, 2015, p. 13). Further, the virtuous approach to leadership continues to benefit an organization—especially in the face of substantial change (Snider et al., 2019). According to Chen and Hou's (2016) empirical study, when leaders foster a culture of innovation, ethical leadership has a positive effect. Cameron et al. (2004) provide further support for operating a business virtually when stating that qualities such as trust, empathy, and courage [similar to those identified in the VBM] can enhance organizational performance, innovation, quality, and employee retention. Implicit in the virtuous business model is that organizations can create a nurturing, flexible environment that encourages change and innovation by fostering a virtuous culture.

## Cross-Functional Collaboration and Knowledge Sharing

Cross-functional collaboration is a cornerstone of innovative organizations, a critical area of exploration to understand how to foster adaptation to change and encourage innovation. But what is it? Essentially, cross-functional collaboration is a way of working that reduces silos (Coppola, 2023) and solves challenging problems (Kitch, 2023) by involving members of various teams to work together on a task or project (Laoyan, 2022). For example, a team consisting of a marketing director, human resources executive, and finance manager who work together to propose a new employee wellness program would be a cross-functional collaborative team.

Rezvani et al. (2018) elaborate on this concept, describing cross-functional collaboration as the interaction between diverse teams or functions, which fosters communication, coordination, and a broadening of perspectives as a way to improve collective work outcomes. They claim that cross-functional collaboration is a powerful way of working together that promotes diverse viewpoints, facilitates resource sharing, and generates unique solutions, thereby fostering an environment that supports change and innovation (Rezvani et al.). Other researchers also tie cross-functional collaboration directly and explicitly to innovation and change (Bai et al., 2017; Brettel, 2011; Laurent & Leicht, 2019).

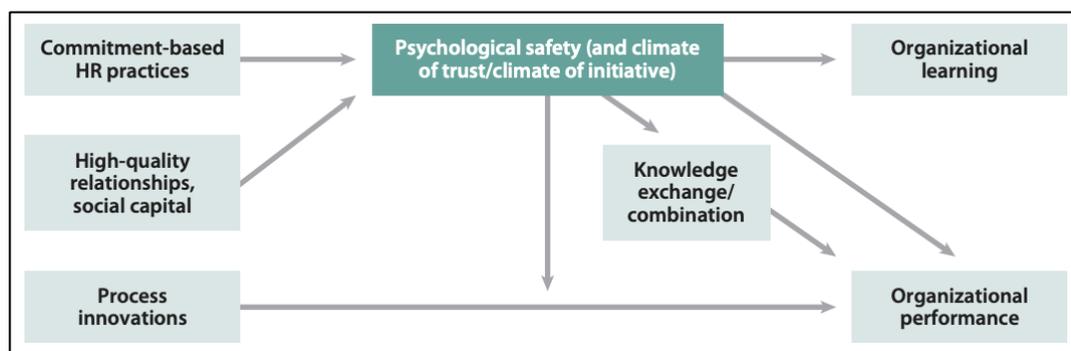
Practitioners know the change- and innovation-enabling power of cross-functional collaboration as well. By working together across various functions, cross-functional teams can yield positive organizational outcomes by dismantling silos and enabling group problem-solving, as per Dunlap's (n.d.) findings regarding how Amazon Web Services leverages collaboration to solve challenges and innovate for their customers. Cisco's former CEO states clearly and compellingly how cross-functional collaboration enables change and innovation:

Our teams working at different levels are cross-functional in nature. This has lent Cisco speed, scale, flexibility, and rapid replication. We had made the shift

to this type of organizational structure in 2001 and had refined it in subsequent years. We had reorganized to break free of the silo culture in the company prior to 2001 so that it could remain agile and innovative in a rapidly changing industry. (Chambers, n.d., as cited in Cascade Team, 2022, How Cross-Functional Teams Help Cisco section).

The mediating role of knowledge sharing also provides helpful insight into how collaboration can enhance adaptation to change and increase innovation. Cross-functional collaboration involves sharing and exchanging knowledge, as Kashyap (2023) notes, and it requires that professionals from diverse backgrounds and experiences work and learn to solve problems together, which enables the creation of innovative solutions that may not be achievable in a more isolated or homogenous context. Joo and Lim (2009) analytically establish a positive correlation between knowledge sharing and organizational learning, resulting in greater comfort with change and innovation. Edmondson and Lei (2014) further underscore the significance of psychological safety, trust, and open communication in creating a collaborative environment that enables innovation and organizational performance. In this context, knowledge sharing is more than a simple exchange of information or working on tasks together; it is a collaborative process where individuals and teams learn from each other, cultivating an entirely new collective shared intelligence (Edmondson & Lei, 2014). This practice fosters a culture of continuous learning and adaptation, which is essential for navigating change and sparking innovation.

As demonstrated in Figure 11, such an environment is fertile and dynamic ground for innovation, especially for process innovation, since coworkers interact and observe how one another does their jobs, learning new ways of working. These high-quality collaborative relationships, centered on knowledge sharing, encourage the free flow of ideas and promote a culture of creative experimentation and risk-taking to support organizational performance.



**Figure 11.** Knowledge Sharing and Organizational Outcomes. *Note.* From Edmondson and Lei (2014, p. 29). Used with permission of Annual Reviews, Inc., from Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct, Edmondson, Amy C.; Lei, Zhike, 1, 2014; permission conveyed through Copyright Clearance Center, Inc.

However, cross-functional collaboration and knowledge sharing are not without their challenges. When diverse people work and share knowledge together, conflict can arise because each person has their own perspective, interests, and potential for

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misunderstandings (Kashyap, 2023). Carmeli et al. (2013) suggest that leaders have an important role in establishing an environment where cross-functional collaboration and knowledge sharing happen, which requires open communication, transparency, and a willingness to share power with others. Lencioni (n.d.) underscores the importance of trust in fostering collaboration and a results-oriented approach within teams with as little unhealthy conflict as possible. In Lencioni's model, trust, clarity, and commitment between team members are foundational to building a results-oriented team. Lencioni (2010) also believes leaders can help their team overcome the fear of conflict and engage in healthy debate by creating trust, boosting open dialogue, and promoting clarity to solve problems. To create greater harmony among knowledge-sharing and cross-functional teams—especially teams charged with innovation—Coradi et al. (2015) incite leaders to ensure these teams work in close proximity and with a shared common language. Yet, the concept of shared proximity takes on an entirely new meaning with the rise of remote work and other workplace technologies, so modern teams should utilize the whole host of digital collaboration and communication tools at their disposal, according to the Indeed Editorial Team (2023b). Similarly, Luthans et al. (2015) encourage leaders to promote vertical (top-down) and horizontal (peer-to-peer) communication, as well as the use of group norms, to ensure effective group interactions. Carmeli et al. (2013) also encourage leaders to follow norms that guide cooperation. Indiana Wesleyan University (n.d.) lists helpful (and alliterative) norms of collaboration:

1. Pause after asking a question to allow others to speak and reflect.
2. Paraphrase what one hears to ensure clarity and organization of one's thoughts.
3. Probe to understand meaning, making the abstract more concrete.
4. Pursue a balance between advocating for one's stance and inquiring about others' stances.
5. Presume positive intentions of others.
6. Pay attention to oneself and others.
7. Present measurable, observable, and specific ideas on the table to broaden others' understanding.

## Influence of Employee Engagement

Transitioning from the previous discussion on cross-functional collaboration and knowledge sharing, this segment will focus on the impact of employee engagement and commitment on an individual's willingness to embrace change, innovation, and new ways of working.

Employee engagement is a perennially difficult human capital management issue since it is a well-known problem for organizations but notoriously difficult to define, according to a literature review by Kular et al. (2008). Forbes Council member Dr. Camille Preston (2018) agreed a decade later, stating that one challenge in defining employee engagement is the difference between how employees and organizations define it. This creates difficulty in reaching a common understanding or approach to address it. Sinclair (2022) also notes that employee engagement is difficult for practitioners to tackle because it must be conceived in relation to the unique

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organization and its own issues. It is essential to address employee engagement, as only one in five employees report feeling engaged at work; not to mention, it is a significant problem for the global economy, costing nearly \$8 trillion (Pendell, 2022, para. 1). In a post-COVID world, where change is frequent and unpredictable, employee engagement is becoming even more crucial (IQPC Editorial Team, 2022). Undoubtedly, understanding what employee engagement means and how to improve it is absolutely essential.

At its core, employee engagement involves an employee's emotional and intellectual commitment to both their individual role and the larger organizational objectives (Shuck & Wollard, 2009). Employee engagement is a dynamic and fluid experience for an employee, involving a deeply-rooted commitment to one's work and workplace that permeates every aspect of an employee's professional life—as a state of mind, a personality trait, and real-world behaviors (Macey & Schneider, 2008). Yet, engagement is not static or one-dimensional, as engagement-focused human capital management platform LumApps (2023) describes. Rather, engagement is the specific emotional response and motivational state an employee experiences, which are directly influenced by the organizational support and job demands they encounter, leading to either low or high engagement levels.

Another way to frame employee engagement is by viewing it through the lens of commitment. Shuck and Wollard (2009) emphasize the positive impact of employee engagement on *affective commitment*—employees' emotional attachment to their organization. Their quantitative study found a significant positive correlation between engagement and affective commitment, suggesting that engaged employees are more likely to be committed and motivated to contribute to their organization's goals and vision. Hence, committed employees are engaged employees who are more open to change and innovation if an organization sets those two goals or includes change and innovation as part of its vision—highlighting the importance of goal setting.

Companies with engaged employees experience various advantages, like lower turnover rates, better job performance, increased profits, and higher customer satisfaction (Harter et al., 2002). MacLeod and Clarke (2009) also write that organizations with higher levels of engagement also enjoy higher levels of innovation activity and adaptability to change, citing copious examples from British companies. Harter et al. (2002) found that individuals and business units with higher employee engagement levels outperformed those with lower engagement in terms of customer satisfaction, productivity, profit, employee turnover, and safety incidents. In this way, employee engagement is vital to positive organizational outcomes, including readiness for change and innovation. Davis (2016) also writes that companies with high levels of engagement experience 80% higher productivity and performance, 22% higher income, and 15% higher innovation activities (Benefits of Higher Levels section). Especially important in a post-COVID world, companies with higher levels of engagement also experience higher levels of employee wellness (Gallup, 2022).

However, employee engagement impacts more than organizational performance in general. In particular, the relationship between employee engagement and organizational performance is critical to fostering a change-ready and innovative

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organizational culture, as investigated by Mone and London (2018). The researchers assert that engaged employees tend to be more satisfied and dedicated, exhibiting higher discretionary effort, which can significantly contribute to more positive performance outcomes. This assertion is also well-supported by empirical evidence from the field in the work of Harter et al. (2002). Likewise, Saks and Gruman (2014) discovered that highly engaged employees tend to be more receptive to change. They found that high work-related energy levels often translate into a willingness to invest more effort into tasks, even in the face of change, lending a similar perspective to Mone and London's (2018) claim. Saks and Gruman's (2014) study suggests that promoting job engagement can potentially result in employees demonstrating higher levels of job satisfaction and commitment, ultimately encouraging a willingness to embrace change and explore innovative solutions—given favorable organizational conditions.

Numerous authors have emphasized the significance of individual and organizational factors that contribute to increasing organizational engagement levels. According to Saks and Gruman (2014), important factors contribute to engagement, including strong leadership that empowers employees, clearly defined roles, a positive and supportive workplace culture, and opportunities for growth, learning, and development. Many authors assert that improving engagement is a responsibility that falls within the purview of management and leadership (Gallup, 2022; Harter et al., 2002; MacLeod & Clarke, 2009). While recognizing that the particulars of employee engagement are unique to each organization (Sinclair, 2022) and that there is not one singular silver bullet to improve engagement, there are several practical steps leaders can take, including

- tying workers' jobs to the larger organizational vision,
- offering clarity to employees,
- appreciating and rewarding employees' efforts and contributions,
- allowing employees to voice their opinions,
- ensuring favorable work-life balance to prevent burnout, and
- training managers to act as coaches (MacLeod & Clarke, 2009).

## Learning and Sustaining Learning Organizations

To fully understand how to create and maintain a culture of learning that supports continuous improvement, change, and innovation, it is crucial to review relevant literature on learning organizations, continuous improvement, and strategies for creating and sustaining a learning culture. The importance of a learning culture for continuous improvement and innovation is supported by López et al. (2004). They argue that a learning culture inspires continuous improvement in an organization because it cultivates an environment where employees feel safe to experiment, make mistakes—and learn from them—which is quite reminiscent of the importance of psychological safety. Their empirical study of Spanish firms found that organizations with a strong learning culture have relatively higher levels of innovation. They concluded that fostering a learning culture can, in fact, drive organizational change and innovation. Similarly, Shi and Zhang (2018) also found that organizations with higher levels of organizational learning have better innovation performance. As

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Fenwick (2005) makes abundantly clear, organizational learning is key to change and innovation since it aids in “generating innovation, integrating new technologies, improving existing processes, predicting and adapting to turbulent conditions, . . . and improving performance” (p. 448).

### **Learning in Adulthood**

Before attention turns to creating and sustaining an organization where learning thrives and supports change and innovation, it is important to highlight the unique ways in which adults learn. In fact, adult learning must be addressed since it guides change and innovation within organizations (Mirci & Hensley, 2010). Underpinning adult learning is the notion that the means of learning are equally important as the ends of learning (Knowles, 1978). In a now seminal work, Knowles (1984) developed the concept of andragogy—or adult learning theory—arguing that adults learn in vastly different ways than children and require unique approaches and environments to be able to learn effectively. He argued that since adults’ brains are more fully developed and have more life experience than children, adults learn more effectively through hands-on, self-directed, practical learning practices. But adult learning theory does not only inform adult higher education; it is also extremely relevant in the workplace. McClean (2006) encourages incorporating adult learning principles into workplace training programs so employers can create a more effective and engaging learning environment for their employees. Merriam and Baumgartner (2020) also stress the importance of the learning environment to enable adult learning—especially in light of rapid demographic and technological change. So, how is an organization created where learning thrives?

### **Creating a Learning Organization**

In their seminal work, *Organizational Learning: A Theory of Action Perspective*, Argyris and Schön (1978) describe that “organizational learning occurs when members of the organization act as learning agents of the organization, responding to changes in the internal and external environments of the organization by detecting and correcting errors” (p. 16). Their description explicitly details how learning organizations are created when challenges and changes are confronted, learned from, responded to, and mitigated (Argyris & Schön, 1978). This definition makes it clear that organizational learning is tied inextricably to an organization’s ability to respond to change and innovate due to what they learned from their interaction with change. Therefore, to create a learning organization, leaders must make it clear that change is part of the organization and must be adapted to (Indeed Editorial Team, 2022).

Similarly, Garvin et al. (2008) explore creating a learning organization in their *Harvard Business Review* article, emphasizing that learning organizations are characterized by an environment that fosters continuous learning, encourages exchanging ideas, and promotes adaptability in response to changes. This environment, they argue, is essential for supporting continuous improvement, adaptability, and innovation. They also make it clear that this type of environment is directly related to innovation: “When leaders demonstrate a willingness to entertain alternative points of view, employees feel emboldened to offer new ideas” (Garvin et al., 2008, Building Block 3 section). Specifically, the authors propose three building blocks for creating a learning organization:

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1. a supportive learning environment where leaders encourage psychological safety, appreciation of diverse perspectives, and openness to new ideas.
  2. concrete learning processes and practices, in which experimentation meets generation and collection of new ideas.
  3. leadership that reinforces the importance of learning by listening to employees and identifying problems (Garvin et al., 2008).

Further, to create a learning organization, it is crucial for organizational leaders to develop systems thinking (Indeed Editorial Team, 2022). *Systems thinking* is a holistic mindset and approach to investigating the interactions among various factors contributing to any given outcome (Morganelli, 2020). In order to support organizations that are ready for change and encourage innovation, it is important to adopt systems thinking. This concept has been studied extensively for over 30 years, especially in the work of Senge and Sterman (1992). They found that the organizations of the future are those that prepare for change and constantly improve by developing systems thinking, which allows for real-time organizational learning. As Mirci and Hensley (2010) write, “Leaders wishing to achieve sustainable innovation need to develop into systems thinkers” (p. 10).

### **Sustaining a Learning Culture**

Creating a learning culture is one thing; sustaining it to maintain continuous learning and improvement is another. Organizations must adopt strategies that consistently encourage organizational learning to support a learning culture. Ellinger and Ellinger (2014) examine continuous learning within the supply chain function and argue that organizational learning can be achieved through initiatives that reward learning and encourage open communication, highlighting the importance of leadership in creating and sustaining a team learning culture. They suggest that leaders who model learning behaviors and provide learning opportunities for their employees can foster an environment that values continuous learning and improvement (Ellinger & Ellinger (2014) . Ghazali et al. (2015) also assert that the sustainability of a learning organization results from the trifold interaction between the protection of learning culture, effective leadership, and open dialogue. Similarly, Garvin (1993) stresses the interrelated nature of interpersonal and intrapersonal learning dimensions that sustain a learning culture. Hussain et al. (2020) tie together many of the themes discussed thus far, insisting that a sustainable and innovative learning organization must balance knowledge sharing and management, organizational culture, and organizational learning.

To better understand how to maintain a learning culture, a recent case study by the Society for Human Resources Management highlights Coca-Cola's approach. They provide regular and tailored feedback to encourage learning, focus on near-term work for individual contributors, and offer employee awards for innovative actions sponsored by executives and the board (Chandele, 2020). Another example can be found in Exco, an Australian manufacturing firm that created a sustainable learning organization by encouraging personal mastery balanced with continuous improvement, standardizing team-based learning, and building, adopting, and communicating a shared vision from the top down of the organization (Quantic, 2021).

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Although every organization is distinct and applies the concepts of learning organizations in their own manner, Marsick and Watkins (2005, as cited in Merriam & Baumgartner, 2020) have identified certain features that characterize a thriving learning organization. These researchers argue that such organizations consistently pursue open organizational boundaries, collaboration, and competitor benchmarking. Additionally, resilience and adaptability to change, knowledge creation and sharing, and building a culture, systems, and structures that capture learning and reward innovation are fundamental.

## Essential Competencies, Skills, and Behaviors

Transitioning from focusing on the leadership's role in fostering a learning culture, it is essential to examine employees' and leaders' competencies, skills, and behaviors to adapt to and promote change and innovation effectively. This is a critical area of research, as individuals' abilities and behaviors directly influence an organization's capacity to respond and adapt to change (Dragoni et al., 2009). In other words, competencies (what people know or learn), skills (people's abilities), and behaviors (how people act and react) are key to understanding how to support change and innovation. Appendix D displays a summary of these items for ease of reference.

### Competencies—What People Know or Learn

Dragoni et al. (2009) underscore the role of both employee and leader competencies as they experience and undergo organizational change. They suggest that certain personal attributes, such as openness to experience new things, readiness for ambiguity, and emotional intelligence, are vital for employees to adapt to changes in the workplace. These researchers also acknowledge that these competencies are learned in practice, so encouraging a hands-on approach is critical. Leaders, in particular, need to possess these competencies as they guide the organization through the change process, model adaptive behaviors, and support employees in adjusting to change. Similarly, Northouse (2019) focuses on three competency areas:

- problem-solving competencies, by which sensemaking and visioning enable one to understand and solve problems;
- social competencies, in which people's skills are mobilized to address organizational challenges and problems; and
- knowledge-making competencies, through which data is understood, utilized, and shared to solve problems.

Further, the practitioner literature also supports the role of competencies in change and innovation. The University of Colorado Boulder (n.d.) has identified key competencies it promotes through its performance management program. These competencies are guidelines for employees and leaders to align their behaviors and attitudes with the university's innovative culture and vision, including integrity, inclusion, collaboration, and communication (University of Colorado Boulder, n.d.). In Kaplan's (2019) article for the American Management Association, there are five competencies identified as crucial for change and innovation:

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- a catapulting mindset, in which new ways of thinking are launched toward reinventing products, services, and—especially—processes;
  - boundary-pushing, by which individuals push themselves out of their comfort zones;
  - data and intuition integration, through which individuals use data available to them but trust their instincts to make decisions;
  - adaptive planning, through which organizations celebrate learning and view setbacks as opportunities to learn; and
  - surprise savoring, in which the unexpected is embraced and seen as an opportunity for value creation.

Finally, since the crucial role of effective human capital management within the HR function was established earlier in the comprehensive review, it seems necessary to include HR-specific competencies. A few key areas arise based on the Society for Human Resources Management’s competencies required for senior professional certification are shared by Willer et al., 2019. First, effective human capital management depends upon business acumen competency, which allows HR leaders to understand and apply business tools and analysis to an organization’s strategic direction. Business acumen enables strategic HR leaders to understand operations, their industry, and how organizational metrics display the value of the human resources function. Next, HR leaders need to be competent in the consultative approach to leadership, which is critical within the change management process. Consultative-oriented HR leaders are competent in identifying problems, designing solutions together with key stakeholders, and supporting organizational change. Finally, HR leaders must be highly competent in critical evaluation, using evidence-based decision-making to advocate for, gather, analyze, and deploy data to make or inform decisions confidently. These competencies offer the necessary knowledge to facilitate change and innovation. However, more information is required to understand how to implement them in terms of skills and behaviors.

### **Skills—What People Do**

**Creativity** Plucker and Dow (2010) emphasize the crucial role of creativity in promoting innovation. They define creativity as the ability to generate new and valuable ideas by combining one’s competencies, processes, and environment. In the context of education, the researchers assert that creativity requires a proactive individual or group who modifies their surroundings based on newly acquired knowledge. Zhou and Hoever (2014) further support this framework, asserting that creativity supports innovation and ignites a culture of innovation. They argue that a creative workforce is adept at breaking free from the status quo, leading to the generation of novel and useful ideas and solutions. Along with Plucker and Dow’s (2010) approach, Zhou and Hoever (2014) also maintain that creativity involves interacting with and adapting to one’s environment to create and apply new knowledge. In addition to supporting change readiness, creativity also encourages innovation. To this point, Lewis (2019) argues that creativity is one of the central skills needed to support innovation since “Creative ideas form the basis for innovation” (para. 6). Innovation is supported when creative ideas are not just generated but also put into practice and deployed to solve problems (University of Colorado Boulder, 2019).

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***Problem-Solving*** While some sources categorize problem-solving as a competency due to its knowledge-based nature (AACRAO, n.d.; U.S. Department of Health and Human Services, n.d.), the literature depicts it as a learned and applied skill. It is a process that demands understanding the root of a problem, generating potential solutions, making decisions, implementing solutions, and evaluating outcomes (Willer et al., 2019). Jonassen’s (2010) work further underscores the role of problem-solving in managing and adapting to change effectively. Jonassen argues that, as organizations learn to solve dynamic, interrelated problems as they arise, they learn to interact with their environment to learn valuable lessons, which can be applied to help manage change and foster innovation in organizations—particularly concerning design innovations, which tend to be the most complex innovations an organization will undertake. To this point, Graham-Leviss (2016) highlights that the ability to examine problems related to business opportunities and strategic advantages is central to innovation as organizations learn to solve their own problems.

Yet, it is crucial to involve stakeholders in the process of identifying and solving problems—especially related to enacting change and engaging in innovation (Loureiro et al., 2020; Ozdemir et al., 2020). Fastenal is a stellar example of how involving stakeholders in the problem and solution identification process is key to achieving efficient, innovative results. As an industrial innovation leader, Fastenal worked with one of its manufacturing clients to involve its employees in process improvement. Consequently, their client developed better and more innovative ways of carrying out tasks to enable workers to concentrate on more impactful work (Trnka, 2023). It is essential for organizations to involve stakeholders in their problem-solving processes, as demonstrated by Fastenal. By leveraging the knowledge and experience of employees and other stakeholders, organizations can identify problems and develop innovative solutions that enhance efficiency and drive results (Loureiro et al., 2020; Ozdemir et al., 2020).

***Critical Thinking*** As a widely recognized aspect of effective decision-making, critical thinking involves systematically processing information and seeking insights with a balanced level of objectivity and creativity (Paul & Elder, 2006). It allows one to analyze unfamiliar ideas and situations to generate solutions to address complex problems (Sasson, 2021). Unlike other types of thinking, critical thinking is a systematic process involving many steps: (a) clarify, (b) question, (c) identify, (d) analyze, (e) evaluate, and (f) create (Monash University, 2022, para. 4).

With this in mind (i.e., analyzing unfamiliar ideas and situations), critical thinking has been identified as a catalyst for change and innovation. Carmeli et al. (2013) found a positive correlation between critical thinking, creative performance, change, and innovative behavior in their study. They argue that by promoting a critical thinking mindset, organizations can foster innovation as individuals are more likely to challenge the status quo and propose novel ideas (Carmeli et al., 2013). Further, Dwyer et al. (2014) expand upon this connection between critical thinking and innovation. They suggest that critical thinking skills—such as analyzing information, questioning assumptions, and making evidence-based decisions—can spur adaptation to change and innovative thinking and behavior. Lastly, Graham-Leviss (2016) encourages

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leaders to develop a sense of critical thinking and curiosity to stimulate new ways of thinking and working.

**Communication** Effective communication skills are extremely crucial in creating a conducive environment that fosters change and innovation within organizations. Northup (2023) defines communication as the giving and receiving of verbal, non-verbal, visual, and written information and encourages communicators to be intentional, simple, and considerate. Research by Johansson et al. (2014) underscores the importance of communication skills for leaders to promote innovation. These researchers argue that innovation-enabling leadership requires communication involving active listening, supportive feedback, and fostering a culture of openness and involvement. In the realm of organizational change, it is essential to communicate in such a way that minimizes uncertainty. For example, Luthra (2015) highlights the critical role of clear, compelling, and consistent communication in reducing uncertainty. Similarly, communication should focus on both the “what” and “how” according to Bansal and King’s (2020) recommendation that effective communication should be timely, accurate, sufficient, and fair. Scott (2019) emphasizes the importance of communication in achieving organizational, team, and individual results in her book *Radical Candor*. She advises leaders to avoid the organizational pitfalls of poor communication by challenging others directly while also caring for them personally (Scott, 2019). Communicating in such a fashion creates an effective balance that fosters clear, honest, and respectful organizational communication.

#### **Behaviors—How People Act and React**

**Interpersonal Behaviors** Clearly, change and innovation require a multitude of interpersonal behaviors. Yet, interpersonal behaviors are essential in all human interactions, especially in the workplace, as Kumar et al. (2014) describe. They argue that interpersonal behaviors significantly shape a team and organization's overall performance and social dynamics. These behaviors encompass various facets, including empathy, self-reflection, and other emotionally adaptive factors associated with emotional intelligence (Blair, 2022). In their book *The Talent War: How Special Operations and Great Organizations Win on Talent*, Sarraille et al. (2020) share their experiences in military special forces observing how high-functioning teams operate. They note that the most successful and innovative teams exhibit certain behavioral traits like drive, adaptability, empathy, and self-confidence.

Further, Odoardi et al. (2015) underscore the significance of several interpersonal behaviors that specifically encourage change and innovation. They suggest the following behaviors are key: teamwork and collaboration, knowledge sharing, and a participative and proactive leadership approach. They argue further that contextual factors like teamwork, information sharing, and leadership style directly impact how a group perceives itself, making it feel motivated or not to innovate. Fortunately, interpersonal behaviors are not permanent or fixed. According to Luthans et al. (2015), these behaviors can be improved by increasing one's interpersonal interactions, using open communication channels, and participating in team-building workshops.

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**Resilience** Additionally, resilience is also critical for managing and thriving amidst change. A well-studied principle of positive organizational psychology, resilience is the individual and organizational “capacity to recover from and adjust to adverse situations” (Northouse, 2019, p. 317). It is one of the aspects of highly performing, innovative, and change-ready teams described by Sarraille et al. (2020). Sutcliffe and Vogus (2003) suggest that resilience equips individuals and organizations with the capacity to respond effectively to change, turn adversity into growth and learning opportunities, and actually increase performance under pressure. Similarly, Lewis (2019) encourages bouncing back from mistakes following an unsuccessful risk-taking activity to support innovation. Resilience as a concept is so crucial to supporting adaptation to change and supporting innovation within organizations, as it interacts with and enhances teamwork, goal setting, employee engagement, commitment, and organizational learning (Luthans et al., 2015)—all concepts that have been discussed throughout this literature review. Unsurprisingly then, resilient workers were 31% more productive and 22% more innovative, and the most innovative organizations were nearly 2x as resilient compared to comparatively non-resilient peers, according to an early COVID-era study (Wu, 2020, Data image). Another recent study conducted by BetterUp (2023) found that more resilient organizations boast nearly 4x higher ROI, over 15% higher team agility to change, and over 20% higher individual innovation activity (Measurable section).

Resilience, adaptation to change, and innovation go hand-in-hand. As Luthans et al. (2015) put it, “Turbulence and instability have become the norm in today’s business environment, and only organizations that can rejuvenate their adaptational systems and bounce back to respond to their ever-changing environments swiftly are likely to improve or even survive” (p. 192). But can resilience be measured, and if so, can it be improved? BetterUp (2023) states that resilience is a behavior that can be learned and measured. They offer a resilience index survey that identifies seven actionable measures of resilience, providing improvement in these areas. They also offer a digital solution called BetterUp Care™, which provides one-on-one coaching, support, and personal and professional development designed and demonstrated to increase resilience, engagement, and growth (BetterUp, n.d.).

**Organizational Citizenship Behaviors** Finally, organizational citizenship behaviors—a widely researched area of organizational behavior and industrial-organizational psychology—also provides useful insights. According to Luthans et al.’s (2015) seminal work, organizational citizenship behaviors are discretionary actions and reactions employees take that benefit an organization and are not necessarily formally recognized in a reward system—but certainly are not forbidden from being included in one. These behaviors include but are not limited to

- *altruism*, or going beyond the call of duty for the sake of one’s organization without the promise of reward;
- *conscientiousness*, or being mindful of one’s responsibilities; and
- *courtesy*, or displaying empathy and kindness (Luthans et al., 2015).

Essentially, organizational citizenship behaviors can be thought of as simply being a good team member, a concept Lencioni (2016) referred to as the ideal team player. In

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his ideal team player framework, the type of employee that organizations want to hire, retain, and promote within an organization displays all three of the following behaviors:

- *humility*, or the lack of pridefulness and the ability to admit mistakes;
- *hunger*, or the willingness to go above and beyond their duties for the sake of their team and organization; and
- *technical and people smarts*, or the capacity to be technically capable of doing one's job and apt to interact well with others (Lencioni, 2016).

## Total Rewards for Change and Innovation

It is essential to bring together the key points discussed thus far at this critical juncture in the comprehensive review. The literature has emphasized the importance of integration, motivation and goal setting, leadership style, and the required competencies, skills, and behaviors for supporting change and innovation after M&A. However, a challenge still needs to be addressed concerning integrating these concepts to enable organizations to embrace change and innovation. This segment focuses on how an environment that encourages change and innovation can be fostered by effectively designing and implementing a total rewards strategy. The two major types of rewards are explored in addition to how an organization can best utilize them to motivate employees.

### Total Rewards

As a fundamental driver for motivating individuals to adapt to change and to innovate, a total rewards strategy can be powerful if designed and implemented intentionally and thoughtfully. According to the Society for Human Resources Management's standards, *total rewards* can be thought of as a general term for an organization's approach to a wide-ranging list, such as compensation, benefits, work-life balance, recognition, performance management, and talent development (Willer et al., 2019).

This review utilizes the term total rewards to encompass both monetary and non-monetary incentives, which Appendix E summarizes. Total rewards are frequently discussed in scholarly literature when identifying employee motivators. Within total rewards, two specific categories of incentives are recognized as particularly effective in driving change and innovation:

- Non-wage/salary monetary incentives, like commissions, bonuses, and equity; and
- Non-monetary incentives, like rewards and recognition (Willer et al., 2019).

For example, Kosfeld et al. (2016) emphasize that monetary and non-monetary incentives can stimulate motivation and meaning, which motivate employees to engage in positive work behavior accordingly. While an earlier study suggests—except for positive feedback—extrinsic rewards like money can undermine intrinsic motivation (Deci et al., 1999), others argue that if carefully managed, extrinsic motivation can complement intrinsic motivation and effectively drive performance (Cerasoli et al., 2014). This claim is also supported in an earlier work by Frey (1997), who

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argues that a well-designed incentive system that does not involve money alone—but includes both monetary and non-monetary rewards—could generate employee commitment towards organizational goals, fostering an environment conducive to creativity and innovation. In their quantitative study, Grebeniuk and Ipatov (2018) conclusively determined that incentives can spur adaptation to organizational change and transformation. Similarly, Bodell (2019) details how top companies like Samsung, Westin, and Intuit creatively utilize monetary and non-monetary incentives to stimulate innovation among their workforces. But what kinds of incentives are best, and how should they be deployed to support change and innovation?

**Monetary Incentives** First, non-wage/salary monetary incentives, like commissions, bonuses, and forms of equity, have, in fact, been found to be especially powerful motivators. Luthans et al. (2015) outline the general categories of non-wage/salary monetary incentives:

- individual incentive compensation plans, in which an individual’s regular pay is largely dependent upon their own performance (e.g., commissions);
- bonus incentive plans, in which an organization offers employees a sum of money for extraordinary performance, either as a planned or discretionary part of their total compensation; and
- stock options, in which an organization provides employees with a certain percentage of equity in the company.

In general, these types of monetary incentives can be very motivating for change and innovation. It is debated whether external motivators, such as money, can harm motivation (Deci et al., 1999). However, economists have long held that financial incentives do inspire individuals (Becker, 1978). This suggests that employees would feel motivated to support change and innovation if they received financial rewards. A seminal work in the organizational behavior literature adds weight to this claim, arguing that monetary incentives increase individual, group, and organizational performance—as long as they are properly designed and aligned with organizational strategies and goals (Luthans et al., 2015). Likewise, Willer et al. (2019) maintain that financial compensation is the “lifeblood of the employment relationship between the worker and the employer” (p. 205).

Even if the scholarship were to discourage monetary incentives—and it does not—recent data from the field would not allow it. According to a recent survey, nearly 70% of employees report carefully reviewing their company’s financial rewards—up almost 10% from the prior year (Morgan Stanley, 2023, Financial Benefits section). Clearly, employees value and pay close attention to financial incentives, and organizations must subsequently carefully evaluate the various forms of financial incentives.

**Individual Commissions.** Commissions have been a consistently popular and effective form of monetary reward for sales-related roles in particular (Coughlan & Joseph, 2012). With commissions, an employee’s regular individual pay is directly tied to their performance, serving as a potent motivator to excel (Luthans et al., 2015). However, the motivational effects of commissions for change and innovation are little to none. Although pay-for-performance has become commonplace, one study

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determined that individual commissions can even dampen innovation in particular because they can distract employees from the goal of change or innovation with potentially selfish motivations (Bachall, 2019). Suppose organizations wish to foster change and innovation through collaboration (Odoardi et al., 2015) and psychological safety (Edmondson, 1999) and wish to see employees exhibit altruistic behaviors (Luthans et al., 2015). In that case, these organizations should steer away from using commissions as a part of a total rewards strategy.

**Bonuses.** Further, bonuses can also motivate employees to go above and beyond their basic duties to adapt and innovate. Research indicates that bonuses—variable, periodic sums of money given to employees—can only effectively stimulate innovative behavior if they are explicitly tied to clear, innovation-focused performance metrics and goals at the group level, according to Curran and Walsworth (2014). These researchers argue that, unlike individual bonuses, group bonuses can encourage both individual and group commitment to achieving shared goals, like adaptation to change and innovation. Similar to how commissions can de-motivate employees to innovate due to the risks involved, group-based bonuses—rather than individual bonuses—allow employees to feel safe to take risks to achieve group innovation goals (Silverman, 2014). Since knowledge sharing, collaboration, and altruism are key to adaptation and innovation, organizations should consider offering bonuses to teams for their ability to change and achieve innovation goals (Curran & Walsworth, 2014; Silverman, 2014).

**Stock Options.** Finally, well-designed stock and equity options also provide employees with a direct stake in the company's performance and success by giving individuals a certain percentage of ownership in the company, which aligns their interests with those of the organization, as Hall and Murphy (2003) explain. Yet, the authors stress that a stock or equity option needs to be done ethically to avoid potential pitfalls. With stock or equity options, when employees perceive that their personal financial success is integrated with the success of the organization, they are more likely to exhibit behaviors that further the organization's strategic objectives, including adaptation to change and innovation—so long as the employee ownership does not become so concentrated that it leads to risk-averse and entrenched management (Frydman & Jenter, 2010).

Moreover, stock options can also be a powerful tool for retaining and motivating high-performing, innovative employees and sustaining a growth-oriented culture, according to one of the leading employee ownership administration companies (Wellman, 2022). Recent field data further supports these claims. According to the National Center for Employee Ownership (2022), organizations that utilized stock options were 4x more likely to retain staff and 18% more likely to increase revenue—even during the COVID-19 pandemic (Employee-Owned Firms section). However, these plans can often be prohibitively costly for small organizations, requiring expensive transaction fees (National Center for Employee Ownership, 2022). Yet, organizations that wish to support change readiness and innovation through teamwork, collaboration, and knowledge sharing should seriously consider implementing a form of employee ownership.

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**Non-Monetary Incentives** Especially crucial are non-monetary incentives when organizations seek to encourage complex behaviors such as change readiness and innovation, which require creativity, risk-taking, and comfort with ambiguity (Amabile, 1997). According to Ryan and Deci's (2017) self-determination theory, intrinsic motivators, such as an employee's satisfaction from performing fulfilling work, can be as influential as extrinsic motivators in driving innovative behavior. Non-monetary incentives such as rewards and recognition can complement monetary rewards in promoting change innovation and are worthy of more detailed investigation.

**Rewards.** While monetary incentives are clearly key to motivating change and innovation, non-monetary rewards are also vital to any incentive strategy. But what are non-monetary rewards? The TriNet Team (2023) describes non-monetary incentives as non-cash awards or perks that employees find valuable. They list personalized things like prizes, trips, and experiences as particularly valuable. In an article for Salary.com, a leading compensation management platform, Reynolds (2019) describes non-monetary rewards as non-cash incentives given to and valued by employees, including fringe (i.e., non-health) insurance, more time off from work, and career development opportunities. Gilbert (2019) lists leadership development opportunities among the most incentivizing non-monetary rewards. Putting these sources together, non-monetary incentives can be considered any tangible, non-cash reward a company gives its employees that is perceived as valuable.

But are non-monetary rewards essential to supporting change and innovation? Non-monetary reward systems are undoubtedly indispensable in cultivating an organization that is receptive to change and conducive to innovation, according to Markova and Ford (2011). Researchers also argue that organizations that desire to foster an adaptive and innovative culture should utilize non-monetary rewards as these systems recognize individual contributions and team efforts, which stimulates cross-functional collaboration and knowledge sharing (Wang et al., 2021). This perspective is further supported by the work of Svetlik and Ilić (2006), who emphasized that a supportive culture and rewards for individual and collaborative efforts are critical for enhancing innovation. Strebel (1996) argues that employees often resist change because the financial rewards do not outweigh the potential risks. Similarly, Boulakis (2018) found that rewards positively impacted employees' resistance to change while recognizing the need for further research to determine the statistical significance of the relationship. Consequently, leaders must deploy rewards that employees genuinely feel are valuable to encourage them to respond to change positively and engage in innovation (Dragoni et al., 2009).

Finally, the organizational behavior literature lends helpful insights into the crucial role of rewards in motivation. Motivated employees are more apt to change and innovate (Ryan & Deci, 2018), so how can leaders effectively motivate employees? Luthans et al. (2015) stress the importance of developing *self-efficacy*—the employee's awareness that they have the power to do what is expected of them if they have done it before. They concluded that employees with a high level of self-efficacy are more motivated, respond better to stressful situations, and can figure out complex problems—and thus react more positively to change and are more apt to innovate. But how can leaders ensure their employees have a high level of self-efficacy?

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According to Schunk (1984) and Malik et al. (2014), *reward it*. Luthans et al. (2015) perfectly summarize the role of rewards: “One way to put [the] importance of organizational rewards as simply as possible is to remember: you get what you reward!” (p. 72).

**Recognition.** Lastly, recognition is also an incredibly—and often overlooked—potent motivator that promotes innovation and adaptation to change within organizations. If an organization wants engaged employees, they need to recognize them: Well-recognized employees are nearly 2.7x more engaged than their non-recognized peers (Wickham, 2023, What is the Importance section). However, according to a joint survey of 1,000 employees conducted by BambooHR and Quantum Workplace (n.d.), only a little over half of the employees report receiving valuable recognition from their supervisor or peers (Employees Who Receive section). However, employees desire recognition more than financial compensation alone since recognition fulfills a basic psychological need as employers increasingly require employees to adapt, change, and find new and better ways of working, as Brun and Dugas (2008) note. As such, recognition of individual and team accomplishments can be a powerful tool for enhancing motivation to change and fostering an innovation-friendly environment. However, before the motivating effects of employee recognition can be reviewed, it is important to detail what recognition is and how it should be offered by supervisors and peers alike.

In the workplace, *recognition* refers to acknowledging and giving explicit attention to an employee’s actions, efforts, behavior, and performance outcomes, according to Brun and Dugas (2008). Employee recognition can take various forms, including tangible items like plaques, trophies, or gifts, and intangible forms like public praise and positive feedback, as explained by Beams (2023), a company specializing in employee recognition software. Recognition is a type of communication that conveys to both the employee and the organization the value that the employee brings to the organization (Bersin, 2021). It can be offered privately and publicly through formal programs such as employee-of-the-month programs or through informal, spontaneous interactions between employees such as a simple ‘thank you’ or ‘good job’ (Bersin, 2021).

Further, the sources of recognition are also important—whether it comes from a supervisory figure or one’s peers. A survey conducted by BambooHR and Quantum Workplace (n.d.) revealed that employees have varying preferences regarding recognition. Some prefer to be recognized by their leaders, while others prefer recognition from their peers. When a supervisor acknowledges an employee’s efforts, that recognition can validate their work and show that the organization values it—even complementing and reinforcing the impact of cash rewards (Long & Shields, 2010). Conversely, recognition between peers can also create a more collaborative work environment, strengthen team relationships, and promote greater mutual respect among colleagues (Bersin, 2021). As peers often have a direct view of an employee’s day-to-day actions, peer recognition can capture and acknowledge contributions that supervisors may notice (Wickham, 2023). According to Nextbee (n.d.), a recognition software company, when peers recognize each other’s efforts and

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achievements, it can build trust and encourage collaboration, fostering an environment that is ideal for promoting innovation (Odoardi et al., 2015).

As Luthans et al. (2015) point out, recognition is a powerful motivator. They argue that recognition reinforces an organizational culture responsive to and even welcomes change and innovation—citing how organizations like Zenith Electronics embed recognition into their change-ready and innovative culture. Recognition of employees, especially from peers and superiors, instills a sense of achievement, reinforces organizational values, and increases motivation (Wickham, 2023), encouraging their pursuit of innovative and creative activities as long as the employee perceives the recognition to be valuable (Malik et al., 2014). The importance of recognition is further supported by another study which suggests that the perception of being recognized increases employees' job satisfaction and intrinsic motivation and increases organizational performance—even in the face of rapid changes during challenging times (O'Flaherty et al., 2021). Based on research by Amabile and Pratt (2016) and Fischer et al. (2019), there is a strong correlation between intrinsic motivation, change readiness, and innovation. It can be reasonably inferred that recognition increases change readiness and innovation by boosting intrinsic motivation.

#### **Total Rewards Implementation Best Practices**

HMI Press (2016) details how there is a substantial gap between the high level of perceived importance of incentives and companies' actual implementation of them. A comprehensive monetary and non-monetary reward system can foster a supportive environment for employees to learn to embrace change and innovation. However, regardless of which incentive strategy an organization wishes to deploy, any successful total rewards program is first dependent upon its alignment with the organization's goals and values to be genuinely effective in stimulating adaptive and innovative behavior.

The importance of alignment absolutely cannot be overstated. Luthans (2015) broadly describes, "Organizations have to offer incentives for desirable outcomes" (p. 95). In the context of an M&A, what are these outcomes? If a significant struggle of an M&A is to integrate strategy, structures, and culture with the new mission and vision of the post-M&A entity, then HR leaders should design incentives to reinforce this objective from the top of an organization down. For example, one meta-analysis of 327 M&A instances showed a statistically significant relationship between CEO incentives and their M&A effort measures (Grinstein & Hribar, 2003, p. 119). But incentives must align down the organization as well. For example, Chao et al. (2020) stress that incentives and rewards should align with organizational objectives to retain high-quality talent post-acquisition. As a critical part of human capital management, incentive programs that align with organizational objectives serve two interrelated purposes, according to Galbraith's (2014) notable work: Well-aligned incentive programs simultaneously motivate employees to perform and support organizational goals and strategies. As Luthans et al. (2015) note, when incentives are aligned with organizational goals, conflicts between the interests of owners and other agents in the organization are avoided. Yet, alignment does not merely happen independently or automatically; it results from intentional, systematic design from start to finish.

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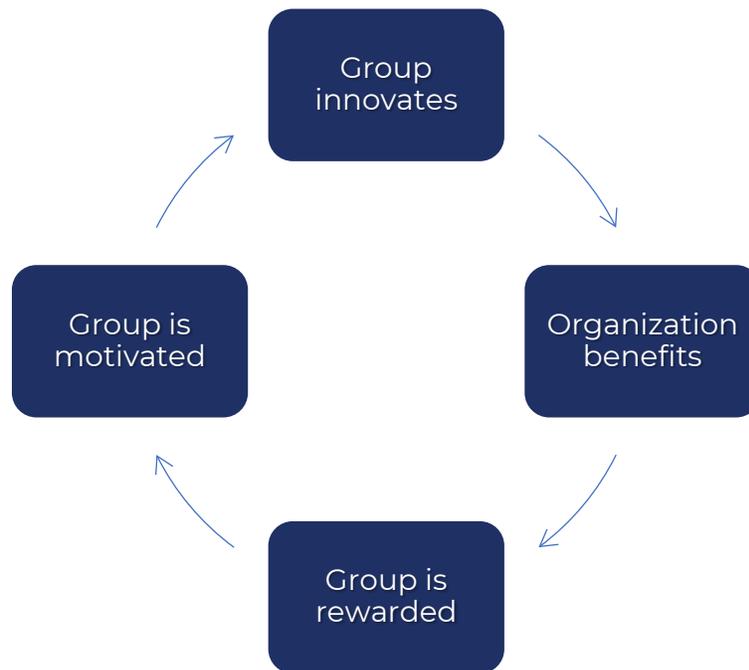
For example, the standards outlined for professional certification in the Society for Human Resource Management maintain that a strategically aligned incentives implementation includes four steps.

1. Assessment, during which an organization surveys employees and determines the current state and desired state of their compensation strategy, asking questions about eligibility, the employees' preferred type(s) of incentives, and funding
2. Design, during which the best type of incentive strategy is selected to accomplish organizational goals best and reach the desired state based on the assessment report
3. Implementation, during which an organization trains managers on the incentive strategy—who will actually implement it—to ensure the successful communication and implementation of the incentive strategy within the workforce itself
4. Evaluation (during which success is measured) and necessary modifications are made (Willer et al., 2019).

However, more is required to ensure the success of incentives than aligning the reward and incentive program with the organization's mission, values, and goals. During the assessment stage, it is crucial to understand employees' preferred type(s) of incentives (Willer et al., 2019). Organizations are comprised of diverse individuals with unique motivations, preferences, and interests. Therefore, incentives should also be personalized to match the unique motivators of different employees (Petruzzellis et al., 2006). Ahmed et al. (2020) offer an insightful concept by describing how it can be an effective approach to consider employees as consumers endowed with the power of choice. O'Boyle and Hogan (2019) agree, encouraging employers not to forget that employees have the power of choice to fulfill their individual needs and satisfy their own preferences. If employers offer personalized incentives, they can effectively treat employees as consumers, enabling them to use choice and tastes to pick the incentive that will better motivate them (O'Boyle & Hogan (2019). An innovative employee incentives software, Blueboard (n.d.), describes how their approach stimulates employee performance by offering personalized, experience-based incentives to employees.

Finally, incentive programs must balance individual and group incentives in organizations wishing to encourage positive responses to change and innovation. Because the efforts and behaviors of groups are key to innovation, group incentives play a critical role in fostering change readiness and innovation within organizations. As noted in previous sections, group behaviors significantly impact change and innovation—like teamwork, knowledge sharing, and vision-making (Odoardi et al., 2015). Consequently, designing rewards and incentives to reinforce values such as these results can stimulate a team-oriented culture (Wickham, 2023). Still, Curran and Walsworth (2014) warn organizations against implementing individualistic incentives to reward innovation, as group incentives encourage risk-taking and are thus more effective. Similarly, Luthans et al. (2015) note how group incentives are particularly effective at increasing innovative and adaptive behaviors that benefit the team and the organization; the organization then shares the fruits of that labor with the group,

which, in turn, is then motivated to keep embracing change and innovation, thus creating a mutually beneficial cycle of innovation and reward as displayed by Figure 11.



**Figure 12.** Group Incentive Cycle. *Note.* Adapted from Luthans et al. (2015).

## Benchmarks for Change and Innovation in Manufacturing

Within the context of organizational performance and management, benchmarks can be defined as standards set by industry leaders or reference points against which an organization's performance is measured (Anand & Kodali, 2008). Moreover, benchmarks are often associated with key performance indicators enabling an organization to assess its progress toward strategic objectives with a focus on organizational improvement. They are thus key to strategic planning, decision-making, and continuous improvement efforts within an organization (Elmuti & Kathawala, 1997). Key performance indicators include two types of metrics: leading indicators and lagging indicators, according to Watts (2019). Leading indicators are a metric that influences and predicts change, while lagging indicators display change results (Coetsee, 2022). But what leading and lagging benchmarks have other manufacturing organizations utilized to measure the success of change and innovation efforts?

If benchmarks can come from the standards set by industry leaders, then manufacturing firms should rely heavily upon the Global Lighthouse Network, a global network of the manufacturing industry's leading, innovative, and change-welcoming firms. These firms seek to provide best practices in order to speed up the technological transformation of manufacturing during Industry 4.0 (Global Lighthouse Network, n.d.). In a recent whitepaper, the World Economic Forum (2023) listed the following lagging indicators that demonstrate an organization is primed for change and innovation in Industry 4.0:

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- Employee engagement at all levels of an organization
  - Transformation-minded positions at all levels of the organization
  - Widespread adoption of cutting-edge technologies, especially IoT
  - Productivity
  - Sustainability
  - Speed to market

Betti et al. (2022) echo those benchmarks, highlighting how the Global Lighthouse Network's benchmarks enable organizations to succeed in Industry 4.0 by providing clear and measurable ways for a manufacturing firm to measure transformation. Recent analysis detailed how organizations that utilized these benchmarks experienced remarkable effects, including but not limited to increased customer acquisition, lower product failure rates, higher labor productivity, and lower design lead time (World Economic Forum, 2023).

Furthermore, there are also benchmarks other leading manufacturing firms have used to ensure and measure success through change and innovation efforts. For example, Somapa et al. (2018) describe how manufacturing firms can respond to a challenging environment by measuring the speed of the progress of adopting enterprise-level collaboration technology to increase performance and visibility—signaling along with the World Economic Forum (2023) that the rate of technology adoption is a valuable benchmark. Likewise, according to Dewar et al. (2023), having a succession plan is an important benchmark for manufacturing companies that want to prepare for the future. They suggest that successful firms in the industry have a pipeline of new leaders ready for the future. In addition, Del Campo et al. (2022) posit other benchmarks manufacturing firms can utilize to be proactive in a rapidly changing environment in which the speed of innovation can quickly make an organization's products or services obsolete. These benchmarks include increasing the firm's supplier network, alternative sourcing for products, and product and process redesign efforts to lower costs (Del Campo et al., 2022).

Yet, most of the benchmarks thus far have either been broad, loosely defined, or difficult to quantify. Gregolinska et al. (2022) provide several quantifiable KPIs as value-creating industry benchmarks, including Inventory holding cost, labor productivity, machine downtime, throughput, forecasting accuracy, and cost of quality. Similarly, Jenkins (2022) details five recommendations from Netsuite—a commonly-used ERP software in manufacturing—for clear and measurable KPIs for manufacturing firms to utilize to guide transformation efforts, including production volume, production cost, on-time delivery, first-time quality, and revenue per employee.

However, the benchmarks that have been included thus far have been leading indicators—not directly related to change and innovation specifically, but merely predicting and influencing them. So, what are some lagging indicators to benchmark an organization's change readiness and innovation activity? Change and innovation efforts require substantial employee energy; when mismanaged, these efforts can often lead to opposition and turnover (Kempton & Sarala, 2021). Therefore, manufacturing firms should include the industry-average turnover rate as a benchmark to measure the success of change efforts. Abbas (2022) also lists KPIs like

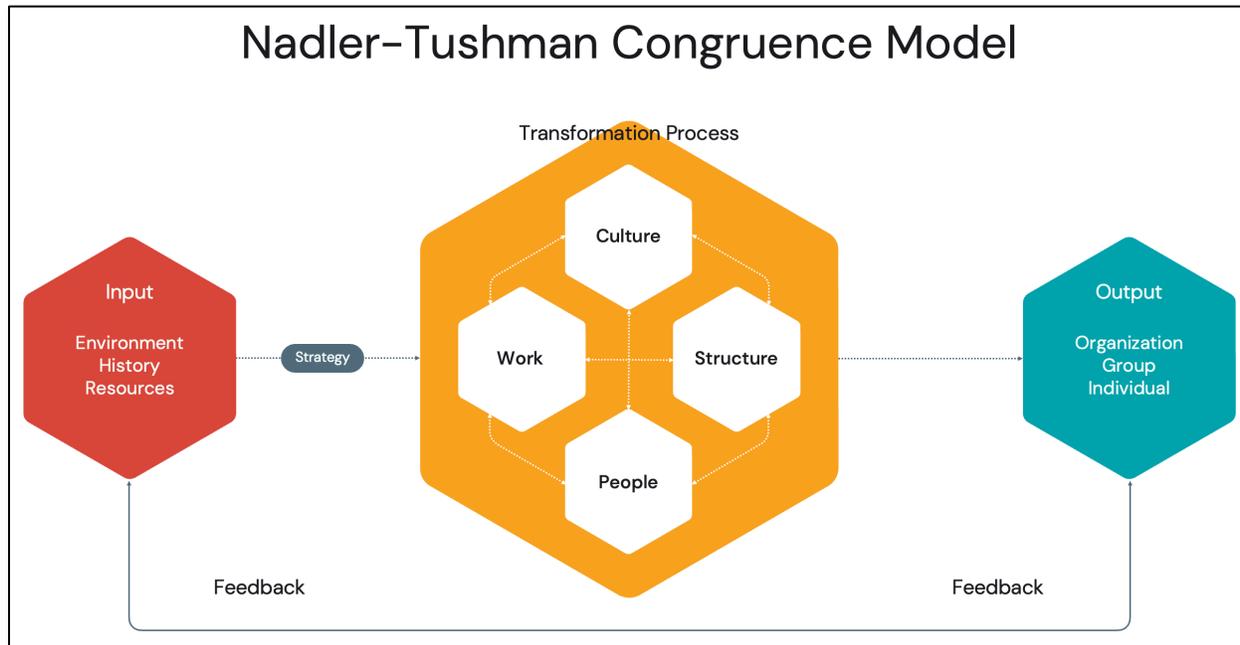
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the number of employees who successfully adopt change, the number of changes successfully implemented, and the number of employees who attend training sessions for new changes. On the innovation front, Staack and Cole (2017) detailed in PwC’s annual innovation report that nearly 70% of organizations claimed sales growth was the most important metric to measure innovation activity and success (p. 5). But Beetham (2016) also lists several other innovation benchmarks, like the percentage of time employees spend on innovative activities outside their regular duties, the number of innovative ideas per employee, and the size, value, and success of an intellectual property portfolio. Being that it is a major determinant of adaptability to change and innovation output, resilience can and should be measured, perhaps by utilizing a resiliency index similar to BetterUp’s model (2023). Finally, since it encompasses and combines multiple success factors—especially during an M&A—return on investment on its own is often the sole KPI used to measure success (Fuhrer et al., 2017).

Of course, the review has identified two dozen benchmarks and KPIs manufacturing firms can use to gauge the success of change and innovation efforts. Organizations could naturally feel overwhelmed and need clarification on which benchmarks to utilize. However, not all these benchmarks are necessary to adopt at once. Still, leaders should “[f]ocus on KPIs that encourage [their] business to improve process speed and quality, enhance customer experience . . . [and increase efficiency]” (Jenkins, 2022, para. 9). In other words, organizations should assess their own needs and pick a well-rounded mix of benchmarks that can support their strategy, context, and goals. Leaders can also refer to Appendix F, which summarizes all the above benchmarks for ease of use and reference.

## Gap Analyses

Adapting to internal and external change and fostering innovation often requires understanding the gap between leadership’s current and desired states and employee attitudes toward those initiatives. The Nadler-Tushman congruence model (NTCM) provides a strong framework for conducting gap analyses and allows organizations to design strategies to bridge these gaps (Nadler & Tushman, 1980). The model is based on a systems theory understanding of organizations, provides a general and transferrable framework for solving organizational problems, and centers around the interaction among an organization’s inputs (i.e., environment, resources, and history) and outputs (i.e., organizational, group and individual results; (Nadler & Tushman, 1980). The model also notably argues that the transformation process interacts with and is influenced by four interrelated strategic factors: tasks, formal organizational structure, people, and the informal organization (Nadler & Tushman, 1980), as displayed in Figure 13.



**Figure 13.** Nadler-Tushman Congruence Model. *Note.* HiSlide.io © 2023 Used with permission. Presentation template by HiSlide.io.

According to the NTCM framework, transforming inputs into outputs involves an organization's strategic decision-making process. This includes managing tasks, informal and formal organizational arrangements, and individual factors such as knowledge, skills, needs, perceptions, and backgrounds. The goal is to determine whether the work being done in each area supports the others (Weller, 2018). It is especially helpful when organizations seek to understand internal or external changes and solve tricky and complex problems (Nadler & Tushman, 1980). To utilize the model, Nadler and Tushman (1980) outline several steps for organizations to take:

1. Identify the symptoms of the problem.
2. Identify inputs and organizational strategy.
3. Identify actual and desired outputs.
4. Identify problems, the gaps between actual and desired outputs, and the associated costs.
5. Describe the components of tasks, informal and formal organizational arrangements, and individual factors.
6. Assess the congruence between the components, using other models if necessary.
7. Identify the root cause(s) of the gaps (problems).
8. Recommend action steps to address the root cause(s).

Other modifications of the model have made the application of the NTCM far simpler and easier to apply, like Lucidity's (n.d.) three-step model:

1. Analyze the attributes of each of the four components of the model.
2. Map the relationships between the various components.

- 
3. Develop congruence between non-congruent components, deciding which changes are needed to impact organizational performance most.

Many researchers have utilized the NTCM and its various components to solve tough organizational challenges. For example, Gholami et al. (2008) utilized the model to provide insight into how manufacturing organizations can adapt to changes and pursue innovation. They posit that the NTCM's transformation concept can be reframed as multiple layers of flexibility, particularly strategic, tactical, and operational flexibility. Focusing on increasing these types of flexibility, Gholami et al.'s study provides an effective example of how the Nadler-Tushman model can identify gaps throughout an organization when it undergoes change. Further, Yoon et al. (2020) heavily relied on the Nadler-Tushman congruence model when conducting their empirical study within a manufacturing firm. They specifically utilized the concept of transforming and integrating organizational components to support adaptation to change and innovation, concluding conclusively that *organizational foresight*—an organization's ability to anticipate and be proactive toward change—significantly impacted its innovation output (Yoon et al., 2020).

Further, other forms of gap analysis are also useful, like a recent study conducted by Baicu et al. (2021) that substantially relied on the Nadler-Tushman model, particularly the concept of congruence and interrelatedness between organizational components. They used the model to inform a new diagnostic tool to investigate how effective and efficient an organization is at change and innovation, concluding that their tool can be used to inform strategic management decisions related to moving an organization toward the types of transformation required in Industry 4.0. While their model is novel, they note that it has been reliable and can offer implications for the future. The researchers' model is particularly significant because a known weakness of the NTCM is its inability to provide answers for the future (Lucidity, n.d.).

Further, the competing values framework (CVF) is an eminently helpful framework for analyzing organizational culture. Based on the principles of OED, the competing values framework can enable organizations to avoid unsuccessful change initiatives by ensuring they consider cultural variables (Lincoln, 2010). The model categorizes organizational culture into four types: *clans*, in which people have much in common and tradition holds people together; *adhocracies*, where employees are creative and bond by taking risks, experimenting, and innovating; *markets*, in which results and winning keep people together; and *hierarchies*, in which formal structures, procedures, rules, and policies are bonding agents (Goldminz, 2020). The model fits nicely with the NTCM as it allows organizations to analyze gaps between the current and desired states, propose relevant solutions, and address any incongruences by providing clear action steps (Maher, 2000).

When taken together, these studies provide invaluable insights into how the Nadler-Tushman model and other forms of gap analysis can help organizations to better understand the gaps in attitudes towards change and innovation, ultimately enabling organizations to navigate their Industry 4.0 transformation journey effectively.

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## Identifying Potential Solutions

Especially within the context of an M&A, successfully ensuring encouraging change and innovation is primarily the responsibility of organizational leadership (Ashkenas et al., 1998; Berkow, 2017; Doherty et al., 2016). It is utterly crucial, then, for organizations to begin any initiative with efforts to train and develop leaders to be change and innovation agents. Organizations could consequently conduct training seminars or workshops to cultivate change- and innovation-encouraging servants (Hugues et al, 2018), adaptive (Ramalingam et al., 2020), and virtuous (Chen & Hou, 2016) leadership styles among its leaders, utilizing adult learning theory's best practices to ensure the effectiveness of the training.

Once leaders are adequately trained and developed on relevant leadership theories, they can then be well-equipped to implement initiatives to encourage change and innovation. However, they should choose solutions that align with motivation theories and other theoretical concepts discussed throughout the comprehensive review to best encourage organizational change and innovation. To effectively motivate individuals and teams to change and innovate, it is essential to choose initiatives tailored to their specific contexts and situations based on the contingency theory of motivation (Luthans et al., 2015; Northouse, 2019; Prajogo, 2016). It also involves

- addressing both intrinsic and extrinsic motivation (Amabile & Pratt, 2016);
- fostering employee satisfaction to encourage self-determination (Ryan & Deci, 2018);
- focusing on mitigating hygiene and cultivating motivation factors (Syptak et al., 1999);
- concentrating on increasing employee engagement (LumApps, 2023; MacLeod & Clarke, 2009); and
- encouraging cross-functional collaboration (Kashyap, 2023), knowledge sharing (Joo & Lim (2009), and learning (Argyris & Schön, 1978).

With motivation theories and engagement squarely in view, the literature highlights many promising potential solutions to address change and innovation, like goal setting (The Josh Bersin Company, 2022), creating and sustaining a learning organization (Merriam & Baumgartner, 2020), or promoting collaboration through establishing group collaboration norms (Carmeli et al., 2013). In particular, two potential solutions could go hand in hand due to the research insights—a personalized support and development offering and a comprehensive total rewards strategy.

First, change and innovation depend on employees feeling supported (BCG, 2021; Erkutlu & Chafra, 2015; Sousa & van Dierendonck, 2014) and being provided opportunities for growth and personal development (Saks & Gruman, 2014). Therefore, an organization could offer a digital solution like BetterUp Care™, which provides one-on-one coaching, support, and personal and professional development designed and demonstrated to increase resilience, engagement, and growth (BetterUp, n.d.). This could be a powerful solution since resilience is a key determinant of adaptability to change and innovation activity (BetterUp, 2023).

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Further, implementing a total rewards initiative stands out as an incredibly effective solution based on the research thus far. As Luthans et al. (2015) noted, organizations get what they reward. Organizations wishing to encourage change and innovation should reward and incentivize those things. Previous research by Frey (1997) supports the idea that an effective incentive system, including monetary and non-monetary rewards, can encourage employee commitment to organizational goals. This can lead to a creative and innovative work environment, especially if the potential solution focuses on individual and team incentives (Curran & Walsworth, 2014; Luthans et al., 2015). Recent quantitative studies, like the one by Grebeniuk and Ipatov (2018), also confirm that incentives and rewards can help employees adapt to organizational change. Top companies like Samsung, Westin, Intuit, and Coca-Cola have successfully used both monetary and non-monetary incentives to inspire change and innovation among their employees, as reported by Bodell (2019) and Chandele (2020). The literature provides the following considerations for leaders to design a potential total rewards initiative.

### **Personalization and Customization**

To create an effective total rewards strategy, it is important to recognize and appreciate the unique preferences of each employee. This means providing personalized rewards and incentives that align with their financial objectives (Strebel, 1996) and other non-monetary preferences like career development or experiences (Blueboard, n.d.; Petruzzellis et al., 2006). Any solution(s) should also be customized to meet an organization's unique needs, per the contingency theory of motivation (Luthans et al., 2015; Northouse, 2019; Prajogo, 2016).

### **Goal-Oriented**

A successful total rewards strategy should also motivate and acknowledge employees to achieve their goals. This goal-oriented strategy aligns individual and group objectives with the company's goals (Alexander & Van Knippenberg, 2014; The Josh Bersin Company, 2022; O'Leary-Kelly et al., 1994).

### **Alignment with Mission, Vision, and Needed Competencies, Skills, and Behaviors**

Finally, it is essential for a potential rewards strategy to align with the organization's mission, vision, and values and acknowledge the competencies, skills, and behaviors needed to foster change and innovation. Organizations can create a culture of change and innovation by aligning rewards and incentives with desired competencies, skills, and behaviors (Dragoni et al., 2009; Luthans et al., 2015; Malik et al., 2014; Schunk, 1984). Organizations could refer to Appendix D for a comprehensive list of change- and innovation-supportive competencies, skills, and behaviors.

## **Need for Further Research and Potential Methodology**

Section 2 of the consulting report detailed many of the known and unknown factors within EM Technologies. Among the known factors, the organization is experiencing a wicked problem due to a long-standing risk-averse legacy, leading to change and innovation being avoided and discouraged among employees despite post-acquisition efforts to the contrary. Even with the new ownership's recent investments and leadership's focus on embracing change and innovation, there is still widespread

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resistance to change and little to no impetus to innovate. Yet, the extent to which a long-term and lingering impact of the former ownership's vilifying change and innovation is unknown. Also unknown is why the new leadership's efforts to encourage change and innovation have not taken hold or been fruitful. The literature review was beneficial as it offered valuable insights to tackle EMT's problem and provide solutions for leadership at all levels, including the organization itself, leadership, and teams and individuals.

Strategy, structure, culture, and human capital integration at the organizational level is paramount, as usefully summarized in Appendix C. Especially after a merger or acquisition, organizational leaders are primarily responsible for ensuring that the new entity's structure and strategies align with culture to avoid common pitfalls like a talent exodus, morale loss, and change resistance (O'Neill, 2017). Doherty et al. (2016) clearly detail how integration is the single most impactful factor distinguishing low and high-performing organizations post-M&A. Romanski (2017) explained how Cisco successfully conducted 200 acquisitions by focusing on strategy integration from the outset of a deal to prepare for and streamline any operational problem that would certainly arise along the way. The extremely valuable M&A research of Van Oorschot et al. (2022) would seem to lead EMT's leadership to adopt a hybrid between a people-focused and structure-focused post-M&A strategy since essential trust, collaboration, and innovation are lacking. Obviously, any solution must address the organization's structure and people. And The Josh Bersin Company (2022) reminds organizations to design compelling post-M&A human capital solutions with, not for, employees.

Additionally, the literature review revealed several lessons for leadership, offering insight into potential solutions. Again, it is right to prioritize and heavily focus on leadership because successful M&A and integration efforts are "contingent upon . . . leadership" (Berkow, 2017, p. 10). With that in mind, the leadership styles that are most supportive of change and innovation are servant leadership (Hugues et al, 2018), adaptive leadership (Yukl & Mahsud, 2010), and virtuous leadership (Chen & Hou, 2016). Since Lacerenza et al. (2017) determined that leadership training is almost always effective at accomplishing at least some level of positive change, there is compelling evidence that any solution should involve training to develop those leadership styles in EMT's leaders.

Finally, the literature offered valuable lessons on how a potential solution can best motivate and engage individual employees and teams. Setting goals and offering incentivizing rewards are both prescient. When creating goals, it is essential to challenge employees and involve them in the process, aligning individual and organizational objectives while being flexible and adaptive to any changes or challenges in the internal or external environment (Chowdhury & Hiou, 2017; Doan, 2020; The Josh Bersin Company, 2022; Locke & Latham, 2002; Latham and Locke, 2006). Shuck and Wollard (2009) tie together the concept of goal-setting directly with employee commitment and engagement, which are crucial to organizational change and innovation performance (Harter et al., 2002; Mone and London, 2018; Saks & Gruman, 2014) and can be increased by recognizing employee contributions and efforts (MacLeod & Clarke, 2009). In addition to recognition, other aspects of a total rewards strategy are also key to encouraging change and innovation, including the

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various forms of monetary and non-monetary incentives (Bodell, 2019; Kosfeld et al., 2016). Indeed, total rewards are clearly important to a potential solution. Yet, the strategy should be tied to individual and corporate goals (Workhuman Editorial Team, 2023). Incentives should also be personalized to match the unique motivators of different employees (Petruzzellis et al., 2006) and designed to recognize and reinforce the competencies, skills, and behaviors a company values (Wickham, 2023). Refer to the list in Appendix D.

Although the preceding solutions promise to encourage change readiness and innovation within organizations, many unknown factors still need to be discovered. Examples of these unknowns include whether or not there is, in fact, a disconnect between the leaders' and employees' perceptions of the new organization. After all, most M&A failures result from upper-level leadership's unfounded assumptions that the pre- and post-acquisition organization's strategies are fully integrated (Garrison, 2019). Therefore, an analysis of the current and desired states of EM Technologies is necessary. The use of gap analyses may help identify misalignments or gaps between the current and desired states of leadership and employees at EM Technologies. However, gap analyses alone are generally insufficient, so they often include primary research such as focus groups or surveys, as a best practice (Agency for Healthcare Research and Quality, n.d.).

A survey that offers open-ended questions about helpful and unhelpful aspects of EM Technologies' strategy, structure, culture, and human capital could offer valuable insights to understand better how EM Technologies employees view the organization. It would also validate whether a proposed solution would be generally accepted among the organization's employees. Finch et al. (2010) conducted a study to explore ways to make higher education more adaptable to change, in this case, using focus groups to help analyze and apply organizational theory to their specific context. Importantly, the researchers involve the group in the solution generation process; a focus group or another method can be used, however. Maher (2000) also detailed how a large manufacturing firm formed small teams that were trained in the new culture, formed action plans to address cultural change, acted as change agents, and assessed the success of change initiatives. Also, because there is a posited disconnect between leadership's new vision and the willingness of employees to adopt it, conducting a survey seems fitting to better understand the issues from the perspective of EMT's employees and to gauge their attitudes toward any proposed solutions arising from identified best practices and through use of the Nadler-Tushman or another form of gap analysis. Similar to how Lurie (n.d.) determined that upper-level leadership is often woefully out of touch with how they perceive human capital issues, a potential methodology could involve issuing an identical survey to leadership and employees to gauge any potential perception disconnect, as well as an open-ended follow-up survey for employees to offer their feedback.

Understanding existing gaps is essential to answering the central question of how EMT's leaders can best motivate individuals and teams to embrace change, innovation, and new ways of working to fulfill the firm's newfound mission, vision, and values.<sup>38</sup> When coupled with discoveries from the literature review, obtaining additional internal information could facilitate targeted actions to bridge the present

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status quo to a more fully integrated post-acquisition strategy and culture. With EM Technologies' diverse team of employees spanning multiple generations, it will be necessary to capture their unique perspectives regarding what prevents them from embracing change and how best to motivate them, such as knowing whether to focus rewards on culture, work, structure, or people factors in alignment with the NTCM. This approach is also supported by the contingency theory of motivation, which underscores that no one-size-fits-all solution exists for any given organization. Further, utilizing the Nadler-Tushman model or one similar could lend valuable insights into which solutions to pick and how to tailor them to ensure alignment between strategy, structure, culture, and human capital management.

## Summary

This section explored different perspectives on the problem at hand and reframed it to ensure a comprehensive understanding of EM Technologies' problem. Scholarly and practitioner literature was reviewed to answer guiding questions that offered insight into potential solutions. Further, industry benchmarks were examined to understand how to measure the effectiveness of change and innovation in the manufacturing sector. Lastly, potential solutions arising from the research were briefly discussed, as well as the need for further research and methodology.

The next section will involve a multiple-perspective inquiry approach to conducting research, encompassing data collection, analysis, and the identification of viable solutions to address EM Technologies' problem.

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## Section 4: Multiple Perspectives and Test Solution

The previous section included a detailed review of the relevant scholarly and practitioner literature to answer the study's guiding research questions. M&A integration, motivation theories, effective leadership styles, collaboration and knowledge sharing, employee engagement, and learning organizations were reviewed. Critical competencies, skills, and behaviors that enable change and innovation were identified. Additional valuable insights were provided from a review of how total rewards and other solutions can be leveraged to motivate individuals and teams to embrace change and engage in innovation. Finally, Section 3 concluded with an overview of the benchmarks for measuring change and innovation in manufacturing, several frameworks that can be used to identify potential solutions, and the need for further research and potential methodology for such research.

Section 4 begins with a description of multiple perspectives associated with the overarching problem, literature, and organizational context, which guides data analysis and solution development. Then, the research design is outlined to describe the planned inquiry, a targeted employee engagement survey. Qualitative and quantitative data gathered from the research conducted at EM Technologies helps address the knowledge gaps found during the literature review. The section concludes with resolving any remaining knowledge gaps and a well-justified and evidence-based recommendation for the proposed test solution.

### Multiple Perspectives Framework

A *multiple perspectives inquiry* (MPI) is “. . . the process of making long-term decisions that shape the course of an organization, while taking into account diverse perspectives” (Wainfan, 2010, para. 1). These inquiries are beneficial since there are often additional frameworks to conceptualize a problem, contextualize or analyze data, and inform a well-justified and evidence-based solution. Essentially, in an MPI, a researcher holds up a problem like a gemstone to light, observing the many facets that comprise the whole. This study addresses multiple perspectives on the problem, ethics, and social capital.

#### Perspectives on the Problem

Thus far in the study, it is more than apparent that EM Technologies has a wicked problem.<sup>39 40</sup> For years before the 2021 acquisition, the company sat still—growing slowly but steadily, with the prior leaders actively discouraging change and innovation to protect its value as they sought to sell it. Yet, despite encouragement and pressure from new ownership and radically new mission, vision, and values, leadership has not been able to engender a lasting or pervasive embrace of change or innovation among individuals or teams. Foundationally, the solution must fully answer the driving research question: How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values? To that end, it would be helpful to reframe the problem by looking at it from the perspective

of post-M&A integration and then realigning EMT's values according to the NTCM and CVF.

***The Problem: Organizational Misalignment and Tension***

The comprehensive review revealed that the Nadler-Tushman Congruence Model is a valuable form of gap analysis that breaks an organization down into its parts: the organization's inputs, people, work, formal and informal organizations, and organizational outputs (Weller, 2018). In this model, organizational outputs are impacted by the congruence or incongruence of the informal and formal organizations, work, and people—irrespective of the quality of the input. EMT's leaders believe they are inputting positive things, such as millions of dollars in new investments and a seemingly compelling mission, vision, and values<sup>41</sup> that they hoped would engender a widespread and lasting embrace of change and innovation. Yet, they are not receiving the desired output of change readiness, innovation, and subsequent return on investment. To better understand a problem, it is often helpful to break it down into individual parts to see if there are any new informative perspectives to examine and solve (Indeed Editorial Team, 2023a).

Like Lin (2012), one can reframe the individual components of the NTCM to mirror the M&A alignment areas utilized throughout this study, as shown in Figure 14. When the NTCM is reframed in this way, it becomes clear that there is misalignment somewhere within EMT. Therefore, the data analysis should look for insights into how EMT can align the themes of the NTCM and M&A integration areas.

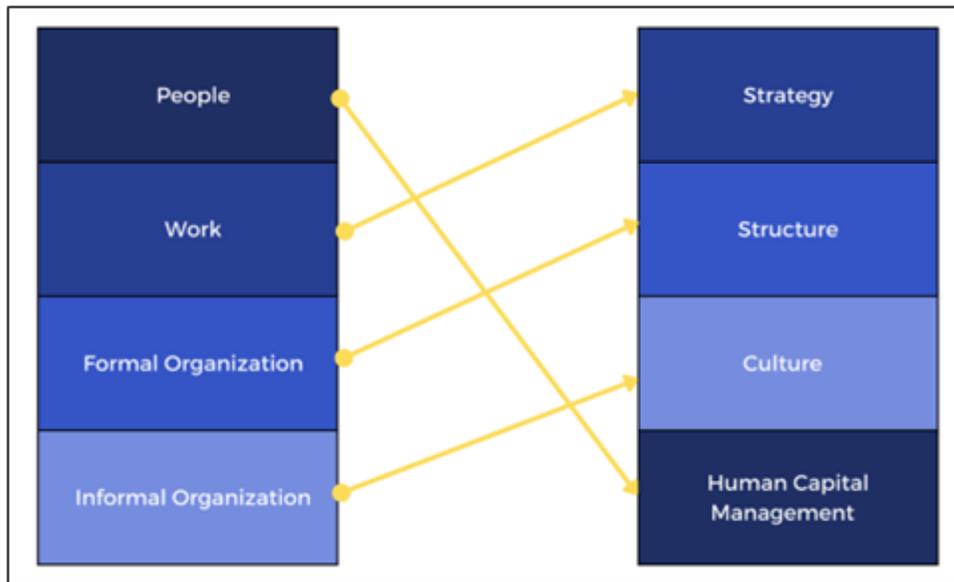


Figure 14. Reframing the NTCM Into Alignment Areas.

Another approach to organizational integration and alignment is the CVF. This framework helps create and sustain successful change initiatives by ensuring they consider cultural variables within organizations (Lincoln, 2010). The model categorizes organizational culture into four types as outlined in Table 3, two or more of which may be present within an organization at any given time, which can result in organizational

tension. Notably, the model does not necessarily call any of the types of organizations good or bad; instead, the model suggests that the type of organization should fit the organization's goals. What works for a small business may or may not work for a multinational corporation, and so on. Competing values of two or more groups within an organization lead to *tension*, a sense of uncertainty among employees at best, and conflict at worst that can impede organizational and cultural change (Reiman & Rollenhagen, 2012).

Type	Description	Example
Clan	A strong sense of community and shared values characterize a clan culture. Employees feel like they are part of a family and are highly supportive of each other.	Small and/or family-owned businesses, religious organizations
Adhocracy	A focus on creativity and innovation characterizes an adhocracy culture. Risk-taking and experimentation with new ideas are encouraged.	Tech start-ups
Market	A focus on competition and results characterizes a market culture. Employees are rewarded for their individual performance and contributions to the bottom line.	Large insurance brokerages and real estate firms
Hierarchy	A formal structure with clear lines of authority characterizes a hierarchy culture. Employees are expected to follow strict rules and procedures.	Government agencies and the United States Army

**Table 3.** CVF Framework. *Note.* The content is based on Goldminz's (2020) descriptions of the types of organizations.

Until this point in the study, the two primary groups examined within the company have been leadership and employees. The tension between these groups has already been made clear: Leadership desires the change and innovation associated with an adhocracy culture, and, generally speaking, employees have yet to be compelled or motivated to do so. But what about other groups that may or may not be experiencing tension?

As discovered in Section 3, post-M&A leaders must ensure that an *us versus them* mentality does not form (Viegas-Pires, 2013). Perhaps one has already formed between various groups within the organization, especially employees who have been with the company before the acquisition and those who were hired after it. While just under two-thirds of the organization started working for EMT after the 2021 M&A, over a third of employees have been with the company since the long-suffering period of stagnation when the company was held in a family trust. Notably, almost one in five employees (~20%) have been with EMT before and during the trust—when change

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and innovation were discouraged. The demographics make it apparent that at least two other groups—rather, segments of the larger Employee Group—exist in the organization: Those who worked for EMT *before* the M&A and those who started with the company *after* the M&A.<sup>42 43</sup> The former can be conceived as holding to the historic clan culture, as described in the CVF, since these longer-tenured employees have in common their seniority, shared experiences of the organization's history, and perhaps closely held traditions. The group of employees who joined after the acquisition can be framed as more associated with an adhocracy culture Goldminz's (2020), a group of employees who have only known the new mission, vision, and values—and so these employees are potentially more open to taking risks associated with change and innovation. But this assumes both the pre- and post-M&A employees know, believe in, and live according to the company's new direction—but at this point in the study, that is still unknown.

There are five challenges of workplace culture change listed by Perucci (2023), which can lead to tension between those who get on board with change and those who do not, including resistance, lack of motivation and ownership, complacency, and capped potential. The lack of motivation for change and complacency toward new ways of working have been uncovered and discussed in previous sections. Potentially, though, there are other forms of resistance within the two employee segments. Resistance does not always look outwardly rebellious, such as public insubordination or outbursts. Resistance can also mean quietly spreading negativity, sowing mistrust in leaders, or rallying others behind divergent ideas. Especially with older employees, resistance to change can also look like quiet dissent. Perhaps longer-tenured employees, dissatisfied with the post-M&A changes, feel their closely held traditions or organizational history are not being honored, leading them to dig into the clan culture. There might also be a lack of ownership of the change and innovation push, leading to a stalled post-M&A strategy. Employees are a vital part of the change process and are responsible for changing company culture as well. What if the top-down approach taken by EMT's post-M&A leadership has not entirely created a sense of ownership among employees, such that they feel distant from or powerless to affect change, which can often happen during culture changes? Or, what if the well-intentioned employee resource group created by leadership does not fully capture the general or widespread sentiment of the employees at large? Finally, change and innovation require new competencies, skills, and behaviors. Perhaps there is capped potential among EMT's employees such that they are not yet well-equipped to engage in change and innovation, needing growth and learning opportunities to overcome this challenge to change.

Finally, another group may have been left out of the equation thus far: frontline management. Leaders must continuously shepherd integration efforts for a merger or acquisition to succeed (Ashkenas et al., 1998; Doherty et al., 2016). But leaders alone will not make an M&A successful; frontline functional managers actually execute M&A strategies (Clarke et al., 2020). The problem investigation revealed that leadership's labors to execute the company's post-M&A strategy have not stuck—by no fault of their own. What if leadership has missed a step by going straight to employees without first involving frontline managers, who are ultimately responsible for strategy execution?

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### ***The Problem: The Scale and Pace of Change***

EMT has experienced foundational changes in rapid succession surrounding the 2021 acquisition. Shortly after the M&A, the company hired a new COO tasked with shepherding the company through the transition and overseeing day-to-day operations. The COO knew that the M&A would only be successful if he surrounded himself with a well-rounded team of people to help with the integration efforts. Within a few months of the M&A, the COO hired a new human resources director, corporate controller, senior engineer, junior engineer, and other key roles. Each of these new roles was newly created as well. During this time, several new technologies and systems were implemented to handle the exponential growth the company was experiencing, as described in Section 1. Unfortunately, a few months after the M&A, the company's longest-tenured employee and president passed away. Also, the EMT's long-standing CFO retired, and a new vice president was hired to replace many of the late president's duties, specifically overseeing the antenna division. Needless to say, there were several rapid and large-scale changes employees weathered during a short amount of time.

Within a relatively short timeframe, EMT experienced five of the six most common events that led to organizational change listed by Perucci (2023). However, organizational change should not occur in rapid succession, especially significant change, which could take months to implement and for employees to adjust (Perucci, 2023). Perhaps EMT's employees are simply exhausted with the scale and pace of change. Therefore, any solution(s) should be implemented with that in mind and be implemented slowly and deliberately.

### **Perspectives on Ethics and Adherence to Organizational Goals**

Any test solution must be held to the highest standard of ethics. Due to the nature of its work in government contracting, EMT is subject to a federally mandated code of ethics.<sup>44</sup> In particular, the code of ethics requires EMT to ensure no deviations from project plans; therefore, when encouraging change and innovation, leadership must ensure that no change or innovation interferes with contractual product designs and specifications. If EM Technologies implements a solution involving compensation, it must abide by applicable laws that govern equal pay for equal work among men and women, such as regulations set by the Equal Employment Opportunity Commission (n.d.) and the New York State Department of Labor (n.d.).

Further, EMT's executives publish among its leadership team their business improvement goals (B.I.G.)—strategic initiatives that guide each department's goals, as shown in Figure 15. The B.I.G. initiatives either stem from or directly support the organization's mission, vision, and values. To support these strategic initiatives, any potential test solution(s) should directly or indirectly support one or more of these organizational goals.

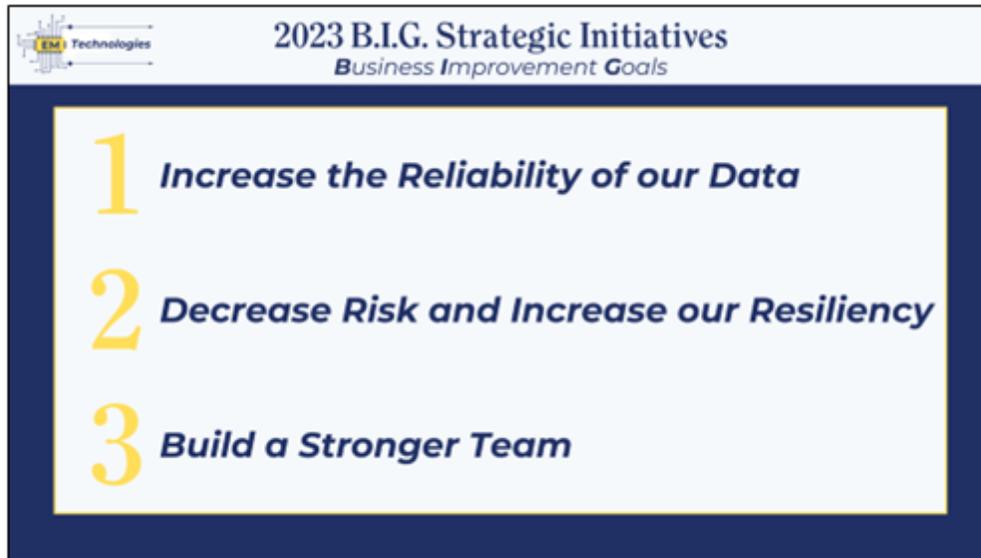


Figure 15. EMT's B.I.G. Strategic Initiatives (EMT, 2023).

### Perspectives on the Social Capital Domain of the Virtuous Business Model

There is a growing and widespread crisis of faith in capitalism as a good and positive economic model (McCarthy, 2020). Tuccille (2022) also describes this phenomenon, writing that, "When it comes to economic systems . . . a growing number of Americans don't seem to believe in much at all" (para. 1). The VBM, pioneered by the DeVoe School of Business, Leadership, and Technology, was designed to address the growing, arguably justified, dissatisfaction with capitalism.

Essentially, the VBM is a multi-faceted approach to leadership and organizations that emphasizes the integration and development of three forms of capital: *economic capital*, the financial aspect of leadership and organizations; *spiritual capital* (i.e., ethical or existential), which is the moral aspect of leadership and organizations (DeVoe School of Business, Technology, and Leadership, 2024); and *social capital*, which is the interpersonal aspect of leadership and organizations (Hein & Wilkinson, 2015). Rather than focusing exclusively on turning profits quarter after quarter, the VBM encourages leaders and organizations to act and conduct their work ethically by building and developing relationships (social capital) and promoting integrity, service, and excellence (spiritual capital; Hein & Wilkinson, 2015). This study addresses all three forms of capital development. In particular, the importance of the social capital dimension of the VBM is evident throughout the report. By stressing the need to develop relationships with followers, as well as its emphasis on "provid[ing] for the relational needs of people" (Hein & Wilkinson, 2015, p. 12), social capital development is central to how any test solution should be conceived since much of the overarching problem depends on relationships between leaders and employees.

With its four building blocks, the influence model will be used to evaluate the solutions from the VBM framework to improve the social capital needed to encourage organizational change. These building blocks are defined by Basford and Schaninger (2016) as the primary actions and behaviors needed to transform an organization successfully and include (a) role modeling, (b) fostering understanding and

conviction, (c) developing talent and skills, and (d) reinforcing change with formal mechanisms.

### ***Be, Know, Do***

One final aspect of the VBM is its use of the *be, know, do* (BKD) framework—which encompasses what organizations/leaders should embody or emulate, what they should know, and what actions they should take or behaviors they should display (Campbell & Dardis, 2004). The BKD framework, utilized by highly effective organizations like the United States Army (1999), ensures a holistic approach to generating or evaluating solutions, contributes to effective leadership and organizational development, and should thus inform the recommended test solution.

### **Multiple Perspectives Triangulation**

Each perspective on its own helps to contextualize and reframe EMT’s problem and could certainly be utilized to inform data analysis and solution evaluation. However, it is helpful to triangulate the perspectives to streamline their use for data analysis and



Figure 16. Multiple Perspectives Triangulation.

solution evaluation. Figure 16 displays the multiple perspectives triangulation, which will be used to determine whether a solution is viable. The literature review highlighted many possible solutions, and more are sure to be discovered through the results of the planned inquiry.

But more than just any solution is needed; an optimal solution combines the previously mentioned perspectives. To determine multiple recommended solutions, each recommendation doesn't need to meet all criteria as long as the package of solutions does. For example, in the event of three proposed solutions, one solution might address all three criteria, the second only two, and the third only one. Or, three smaller solutions that touch on each domain of the triangulation would also be considered a viable test solution package. If the solutions answered the driving research question by addressing the problem, then adhering to ethics by supporting organizational goals and increasing the social capital dimension of the VBM, the solutions would remain viable.

### **Planned Inquiry**

After identifying a framework to analyze data and evaluate potential solutions, attention now turns to the planned inquiry. The inquiry was designed to address the remaining knowledge gaps and gain valuable insights from EMT's leaders and

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employees to aid in the post-M&A integration process. In Section 3, the extant scholarly and practitioner literature was thoroughly reviewed to answer the driving research question and guiding questions. Yet, knowledge gaps remained, like how to integrate further the strategy, structure, culture, and human capital management and tailor the test solutions to meet the needs of EM Technologies. For those reasons, the planned inquiry was designed to gain valuable insights from EMT's leaders and employees to aid EMT's post-M&A integration of strategy, structure, culture, and human capital management.

### **Alternative Methodologies**

Several methodologies could have been employed in the planned inquiry instead of the one described. Three examples of alternative methodologies have been identified. First, the study could have followed Finch et al.'s (2010) approach, which utilized focus groups to explore ways to make higher education more adaptable to change. A focus group approach could have been adapted to include both the Employee Group and the Leader Group separately or together. Second, the planned inquiry could have also utilized document analysis incorporating the organization's prior three years of Best Places to Work survey data. The organization participates in the annual Best Places to Work survey, which yields insightful results about the same themes as this study. Third, the principal investigator could have conducted an observation or employed an interview method to understand the strategy, structure, culture, and human capital management of EMT firsthand (Scribbr, n.d.). However, the targeted employee engagement survey methodology was ultimately selected because targeted surveys offer descriptive data that allow researchers to collect information objectively and anonymously (Scribbr, n.d.). The selected method is also supported by the fact that there was the potential for conflict of interest in conducting focus groups, observations, or interviews, as pointed out by the IWU Institutional Review Board (IRB), because of the researcher's position as the human resources director at EMT. Further, given the current state of the culture, it was imperative to offer the employees an opportunity to voice their views openly.

### **Inquiry Design**

The overarching framework for the planned inquiry was a gap analysis informed by the NTCM and the CVF concepts. A gap analysis helps an organization understand how to move from the current state to the desired state (Leonard & Bottorff, 2022). The planned inquiry was explicitly designed to inform the selection and specifications of the test solutions to assist EMT in transitioning from the present state of opposition or apathy towards change and innovation to a state where they are embraced and encouraged to maintain competitiveness in Industry 4.0.

To assist with and inform the gap analysis, the methodology used in the planned inquiry described below was a targeted employee engagement survey. Many similar studies noted in the comprehensive review utilized applied research to measure the effectiveness of organizations' strategies, structures, cultures, and/or human capital management practices—usually in the form of surveys (BetterUp, 2023; Finch et al., 2010; Lurie, n.d.; Morgan Stanley, 2023). To do the same, this study utilized applied research in the form of a mixed methods research survey.

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## Inquiry Method and Process

There were two primary research methods in the inquiry: quantitative and qualitative. The quantitative data collection design included the distribution of Likert ratings for each question and in the aggregate from both groups: leadership and employees. The qualitative design included optional open-ended comments for each survey question from both groups, with the Employee Group survey also including three follow-up questions about EMT's practices. Participants accessed the employee engagement survey through a link embedded in the emailed invitations. Refer to Appendices G and H. A total of 51 employees (8 leaders and 43 employees) were eligible to complete the survey. Neither the executive assistant—who was selected to send out the survey invitations—nor was the researcher eligible to take the survey. Participant consent was required before the survey instrument was made available in Microsoft Forms. See Appendices I and J for copies of the leadership and employee consent forms. Once surveys were completed, Microsoft Forms automatically compiled both groups' aggregate Likert ratings and open-ended responses.

## Research Instrument

To strengthen the validity of the data collection, a modified version of the SHRM-standard employee engagement survey detailed in Willer et al. (2019) was incorporated into the research instrument. The survey consisted of 15 statements that respondents rated on a 5-point Likert scale, as depicted in Figure 17. Open-ended response boxes followed each Likert scale item, allowing respondents to comment further on their answers.

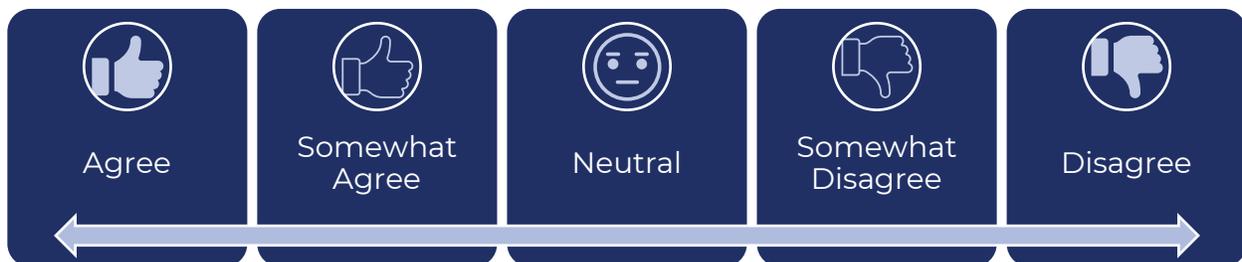


Figure 17. Likert Scale.

The employee engagement survey content was identical for both groups, the Leader Group and the Employee Group, but there are also a few notable distinctions in what was provided to them. First, in recognition that upper-level leadership is often out of touch with how employees perceive human capital issues Lurie (n.d.), the Leader Group was explicitly instructed at the top of their survey to answer as if they were answering on behalf of the average employee. This was purposively done to gauge if there is a perception gap between leadership and employees.

What distinguished the Employee Group survey is that, in addition to the employee engagement questions, it included three open-ended questions about what should be stopped, started, and continued at EMT to motivate change and innovation to help answer the study's driving research question. The Leader Group did not receive the start, stop, and continue questions since the inquiry sought a secondary purpose:

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Gaining employee input on any proposed test solution. The approach also resulted in positive secondary implications of enhanced protection of confidentiality and impartiality for the smaller purposive sample. The insights from the field research helped to reduce the remaining ambiguity by collecting and analyzing the survey data and employee comments regarding the strategy, structure, culture, and human capital management practices of EM Technologies. A copy of the survey instrument is located in Appendix K.

**Data Analysis** To analyze the quantitative data, several tools were utilized to provide various metrics, analyze relevant descriptive statistics, and compare the data from both groups. These tools include Microsoft Excel and JASP, an open-source statistical analysis software. Qualitative data analysis was thematic in nature. Thematic analysis is a methodology for analyzing qualitative data, during which data is examined for themes and patterns, often mitigating confirmation bias by providing narratives and patterns from the data (Caulfield, 2023). The thematic analysis of the open-ended responses from both groups provided context to the narratives and patterns discovered in the quantitative data, visualized using ChartExpo (n.d.), an online data visualization platform.



## Sample Size

Two distinct groups within EMT were surveyed: the Leader Group and Employee Group. Eight senior-level employees above the senior manager level in the organizational structure above the senior manager level comprised the Leader Group. . All remaining employees, regardless of tenure or classification, comprised the Employee Group, totaling 41. A sum total of 51 eligible participants were invited to participate in the study.

## Universe Characteristics

Demographic information was not collected in the survey to protect the confidentiality of the participants. However, several characteristics of the entire population of all eligible participants were extractable from the company's HRIS system, as found in Table 4. EMT employs 37 self-identified males and 14 self-identified females, not including the researcher or executive assistant. In terms of age, EMT's workforce includes employees from four of the five generations present in today's workforce: Generation Z (13.7%); Baby Boomers (23.5%); Millennials (29.4%); and Generation X (33.3%). There are no Traditionalist generation employees.

Characteristic	Number	%
<b>Self-Identified Gender</b>		
Male	37	72.5%
Female	14	27.5%
<b>Age</b>		
Generation Z (1997–2012)	7	13.7%
Millennials (1981–1996)	15	29.4%
Generation X (1965–1980)	17	33.3%
Baby Boomers (1946–1964)	12	23.5%
Traditionalists (1928–1945)	0	0%
<b>Length of Service</b>		
Less than 2 years	30	58.8%
3–7 years	11	21.6%
8–12 years	3	5.9%
13+ years	7	13.7%
<b>Average Tenure (years)</b>	6.5	
<b>Hiring Timeline</b>		
Pre-M&A	18	35.3%
Post-M&A	33	64.7%
<b>Highest Education Level</b>		
No high school diploma	2	3.9%
High school diploma or GED	25	49.0%
Some college, no degree	10	19.6%
Associate's degree	7	13.7%
Bachelor's degree	6	11.8%
Master's degree	0	0.0%
Doctoral degree	1	2.0%
<b>Department</b>		
EMT Antennas	10	19.6%
EMT Contract Manufacturing	14	27.5%
EMT Administration	27	52.9%

Table 4. Potential Sample Characteristics.



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Well over half (58.8%) of employees have worked for the company for less than two years. Nearly two-thirds were employed after the 2021 M&A. The average tenure is six-and-a-half years. Nearly 90% of employees have less than a bachelor's degree, while only 13.7% (7) have earned at least a four-year degree. Finally, over half (52.9%) of EMT's workforce consists of administrative employees—traditionally white-collar workers—followed by EMT-CM (27.5%) and EMT Antennas (19.6%). All surveyed employees live within approximately 50 miles of the company's headquarters in Jamestown, NY.

### **Researcher's Role**

As the head of human resources at EMT, the researcher is a member of the Leader Group and Employee Group and, therefore, did not participate in either survey. The researcher's role in data collection was limited and primarily hands-off. The company's administrative assistant sent the invitation emails to the leader and employee groups with the link to the survey on the researcher's behalf to put distance between himself and the study, to protect its integrity. However, as an employee and head of HR at the company, the researcher has a unique perspective as someone who has experienced the problem firsthand. Also, the researcher has been with the company since the early days of the acquisition and has conversations related to the problem with various stakeholders almost daily. This rich professional experience has given the researcher deeper knowledge of the problem and organization and prompted unique, valuable insights into the problem.

### **Institutional Review Board**

The inquiry involved human research in the form of a survey, which was required to answer the driving research question fully and fill in the remaining knowledge gaps. To ensure the highest level of academic integrity and protect the research participants, the planned inquiry was evaluated and approved by Indiana Wesleyan University's Institutional Review Board. The research approval by the IRB and SHRM's copyright license for the survey can be found in Appendices L and M. The researcher was recused from participating in both surveys to address a potential conflict of interest and ensure the highest academic integrity. Additionally, the survey was administered electronically through Microsoft Forms. Confidentiality was maintained by not requiring respondents to provide personally identifying information or demographic data. Taking the survey was voluntary; employees were not required to participate, and participants could leave the survey at any time. The principal investigator will retain electronic copies of all data in a password-protected Microsoft OneDrive folder for a period of three years. Copies of all participant-signed consent forms were sent to the IRB after completion of the study.

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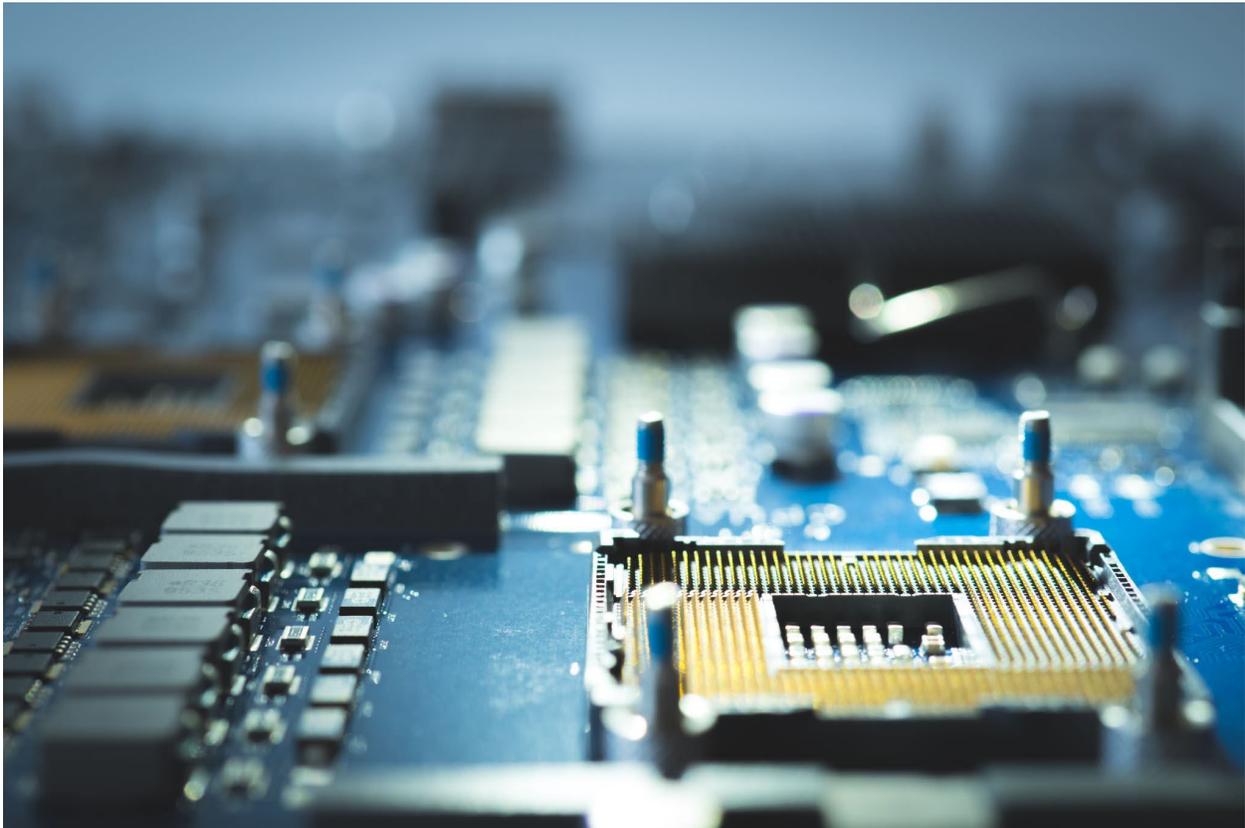
## Inquiry Execution and Findings

### Planned Inquiry Execution

The research was conducted over a two-week period starting in September 2023. An invitation containing the link to the survey was sent to both groups on September 5, 2023, and a reminder email one week later. Of the 51 eligible participants, 14 responded to the survey (28%). Among the two groups, 50% of the eligible Leader Group (4 of 8) and 23% of the Employee Group (10 of 43) voluntarily participated in the survey. No participant in the Employee Group survey commented on the three follow-up questions regarding what practices EMT should start, stop, or continue to support its new mission, vision, and values.

### Research Findings

The full results from the quantitative and qualitative data can be found in Appendices N and O, respectively. Figure 18 summarizes the aggregate results of the survey Likert data in a visual format.



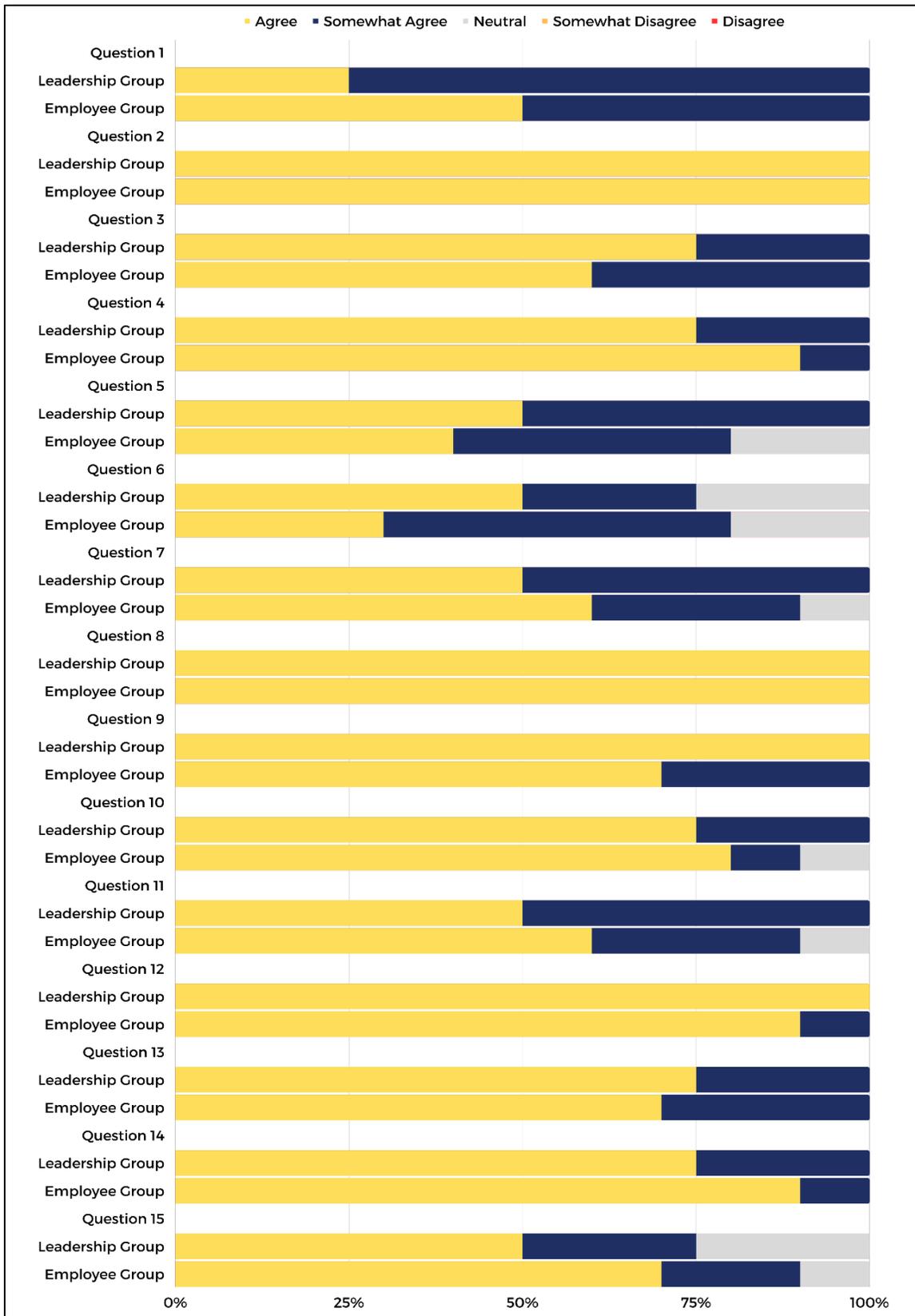


Figure 18. Survey Likert Data.

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## Data Analysis

### Participation Rate Considerations

During the survey period, 50% of the eligible Leader Group and 23% of the Employee Group participated in the survey, as shown in Table 5. Consequently, the Leader Group survey has a non-response bias of 50%, and the Employee Group survey has a non-response bias of 77%. In sum, the planned inquiry had a 27% response rate and a 23% margin of error. Further, no participant in the Employee Group survey commented on the follow-up questions regarding what practices EMT should start, stop, or continue to support its new mission, vision, and values.

	Leader Group	Employee Group
Eligible Participants	8	43
Actual Participants	4	10
Participation Rate	50%	23%

Table 5. Participation Rates.

Assuredly, it would have been ideal for more employees to participate in the survey since a higher participation rate can often indicate higher levels of employee engagement and yield more reliable and actionable results (Kailash, 2023; Jonas, 2022). If, in fact, the low participation rate for the survey for this study potentially indicates a low employee engagement rate, it would certainly align with the insights from the comprehensive review: Engaged employees exert more discretionary effort, such as participating in an optional employee survey (Davis, 2016; Saks & Gruman, 2014). One could also argue that the lower participation rate and the lack of suggestions to improve the company’s practices mirror the lower levels of employee engagement, which aligns with the overarching problem of a lack of receptiveness to change and innovation. However, the Leader Group had over a 2x higher response rate than the Employee Group, which is notable and further indicates leaders’ willingness to be engaged.

The lower-than-hoped-for participation rate does not necessarily invalidate the planned inquiry. One survey platform reports that their average response rate for a medium-length survey—one with more than 12 questions—is less than 10% (PeoplePulse™, n.d.), but yields informative data. Moreover, as Gartner author Jackie Wiles (2015) notes, “It’s far better to focus on the results of employee engagement surveys than the number of people who participated” (para. 1). Also, the leaders’ survey comments appear to indicate that they did not follow or understand the instructions on how to respond—that is, how they thought the average employee would respond. Instead, the leaders responded as they would to most other surveys—by answering the questions on their own behalf. Regardless, the open-ended survey responses yielded insightful findings that augmented the low participation rate. With that in mind, the quantitative and qualitative results of the research are undoubtedly enlightening and provide wonderful insights into the problem and potential solutions.

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## Perception Gap

The primary goal of the inquiry was to answer the driving research question. Toward that end, it was crucial to determine if there was a perception gap between leaders and employees. The quantitative and qualitative data were analyzed, in part, from this perspective. The quantitative data analysis certainly offered valuable insights into whether and to what extent a perception gap exists between the two groups in the organization.

The researcher modeled the quantitative analysis for this study after Rizwan et al.'s (2021) research. The researchers conducted a study to identify differences in how female engineering graduates and employers perceive graduates' employability skills. They used a survey method similar to the planned inquiry of this study by giving the same survey to two distinct and targeted groups. Then, the researchers grouped the survey questions by M&A alignment category and gave the mean rating for each group to determine perception differences. It is important to note that the respective mean ratings of both groups were calculated only from the groups' ratings on the highest Likert rating, in this case, the *agree* rating. This approach is based on one of the study's primary goals: to determine to what extent the groups are aligned with how they view the organization.

Using only the *agree* rating means is also in line with other studies. For example, Romney et al. (1986) used only the first and highest rating, in their case *competent*, to determine the level of cultural consensus in their study. Further, Dykema et al. (2022) note that *agree* ratings can and should be interpreted as the most "alignment with the construct" (Table 2) in subjective Likert evaluations when *agree* is the highest possible rating. Nyutu et al. (2021) utilized a similar approach to determine students' perceptions of their lab environments based on gender and college major. Therefore, only the *agree* Likert ratings were applied in this study to determine what defines alignment, which is aligned with this study's goal and other similar studies. But it is also necessary, considering the distribution of the data.

Notably, no participants in either group rated any question lower than neutral; all questions received agree, somewhat agree, or neutral at worst. In other words, as Figure 17 displays, most of the data is at the positive end of the Likert scale. To be clear, all ratings are valid and used throughout the analysis. But whereas the data was normally distributed with all five Likert ratings utilized, *agree* and *somewhat agree* could have been combined to form a general agreement rating. For example, if a group had rated a question with 20% agree, and 40% somewhat agree, one could determine that 60% of respondents generally approve of that item. Similarly, if 10% somewhat disagree and 30% disagree with a question, it could be determined that 40% of respondents generally disapproved. In this instance, it is clear what percentage view the item the most positively (20%), positive but less so (40%), most negatively (30%), and negatively but less so (10%). However, since only the top three Likert ratings were used, only the agree ratings can be used to determine if a group approves of a topic since that rating alone is the highest. When 10% agree, 20% somewhat agree, and 30% neutral, which is most positive, less positive, or most negative? If no respondents rated an item as disagree or somewhat disagree—the typically lowest ratings on a Likert scale—then the meanings of the ratings are entirely different. Agree

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remains the highest possible rating, somewhat agree would become the neutral rating, and neutral becomes the rating indicating the least agreement on the scale. Sure, all ratings would then be assumed to be positive overall, but when determining the least positive ones, neutral would effectively become the least favorable rating for analysis purposes.

This phenomenon is known as a *ceiling effect*, which occurs when surveys that utilize a scale produce data close to the upper limit, in this case, the agree option (Chyung et al., 2020). For example, if the data had spread throughout each Likert rating, the difference between agree and somewhat agree would not have been crucial. Instead, the difference between agree and somewhat agree is crucial because the worst rating on any question was the neutral option. In other words, normally distributed Likert scale data would mean that agree would be the most positive and disagree would be the most negative. Because no respondents rated any question less than neutral, it can be reasonably inferred that neutral would be the most negative rating. A ceiling effect makes the difference between agree and somewhat agree all the more important to determine a perception gap.

Notwithstanding, this project consciously interpreted the data as it is, not as desired or assumed. Moree (2018), writing about research among marginalized communities for the *Oxford Research Encyclopedia*, cautions researchers against assuming that research participants—especially marginalized ones—are helpless victims. Instead, researchers are to view them as “agents able to tell their own stories” (para. 1). She also alerts researchers to the *antagonism* often found in research results, a phenomenon that occurs when research participants often choose between the two extremes of a scale when presented with a decision they have to make during the course of the research (Moree, 2018). It appears that an antagonism phenomenon is also present in this study's results. The researcher presumes research participants made a conscious decision when selecting among the ratings for each question. Such agency was reiterated by the fact that survey participants had a choice to take the survey or not, walk away anytime during the survey, and answer to the best of their knowledge regarding what they perceived to be the average employee's view.

### **Quantitative Analysis**

The survey data provides insightful revelations about the groups' perceptions of EMT's strategy, structure, culture, and human capital management. While the quantitative data shows evidence of strong consensus and alignment between the groups, there are also areas where alignment is far less pronounced, and that present a foundation for targeted interventions.

Following Rizwan et al.'s (2021) model data analysis, the questions were categorized by theme, which can be found in Table 6.

Category	Question Number	Question
Strategy	8	People believe in what they (and/or the organization) provide to their customers.
Strategy	13	People buy into where the company is going.
Structure	3	People are able to easily work with other teams or colleagues without barriers.
Structure	4	People from diverse backgrounds and opinions are able to collaborate.
Structure	14	Managers support their teams to be successful.
Culture	1	People are able to act on their own authority and innovate on the job.
Culture	5	People believe in and trust their senior leaders.
Culture	9	People feel they are adequately recognized and appreciated.
Culture	12	People feel like they can achieve a work-life balance as an employee of the company.
HCM	2	There are opportunities for people to grow and develop in the company.
HCM	6	People feel they're compensated fairly.
HCM	7	People feel the company's benefits meet their needs.
HCM	10	People have the right tools (computers, systems, etc.) to do their job.
HCM	11	People feel that there are enough people on their team to support their workload.
HCM	15	People feel they have the training they need to do their job.

**Table 6.** Survey Questions by Category. *Note.* HCM equates to human capital management.



Based on the data, several general observations can be made about the comparisons and contrasts between and within the groups, which are also helpfully visualized in Figure 19.

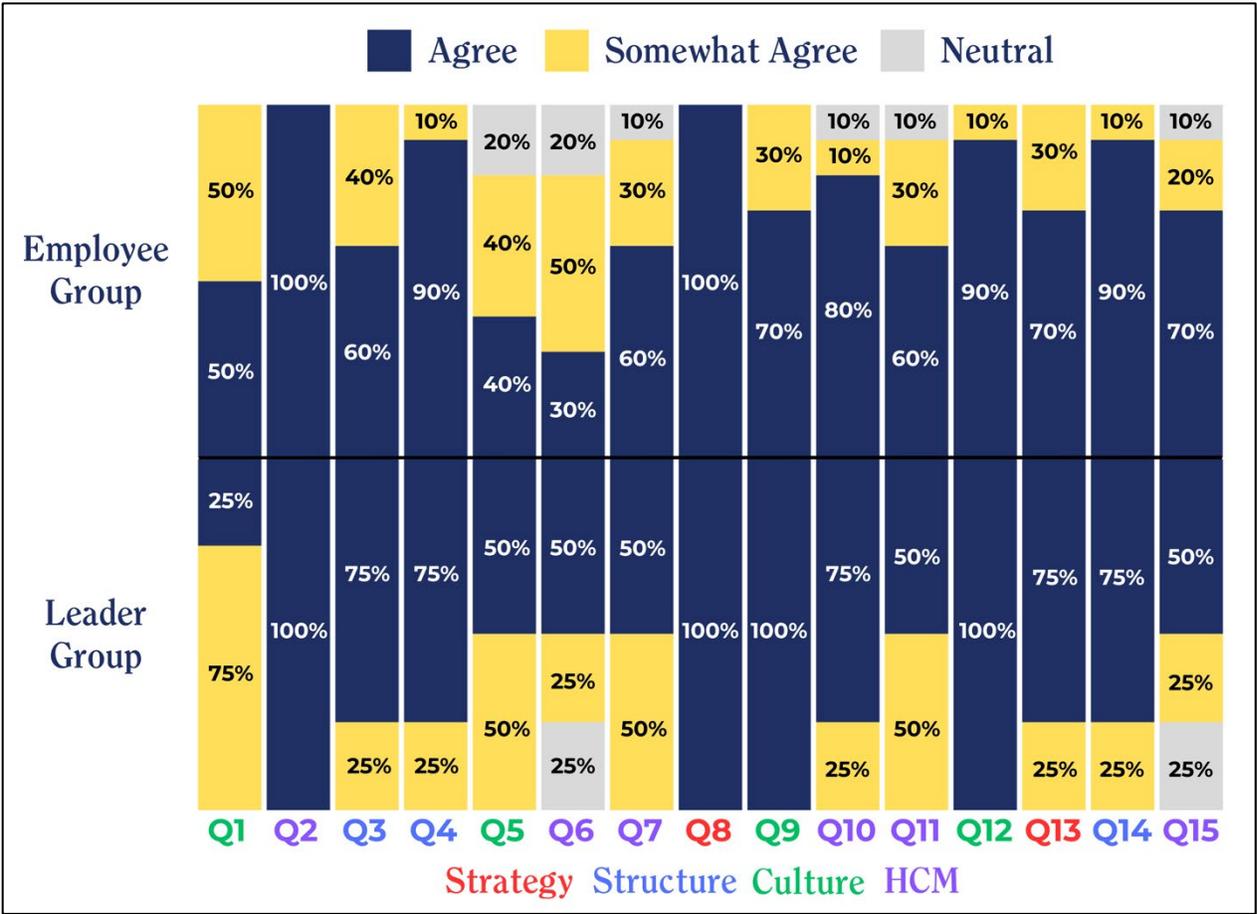


Figure 19. Ratings Comparison Between Groups.

As indicated in the visualization, there is high alignment between the Leader and Employee groups in certain areas, most notably in their unanimous agreement on the potential for growth and development within the company (Q2) and belief in what the company provides to its customers (Q8). This suggests a shared positive perception of company growth opportunities and customer value. The alignment of having the right tools for the job (Q10) and buying into the company's direction (Q13) is strong but shows a slight discrepancy, with leaders more in agreement than employees by a five-point gap in both questions. These minor gaps may indicate areas where leaders perceive the situation more positively than employees.

There is total agreement within the Leader Group on growth opportunities (Q2), customer value (Q8), recognition (Q9), and work-life balance (Q12), showing strong consensus on these aspects. Conversely, there are more varied opinions among leaders regarding compensation (Q6), benefits (Q7), and management support (Q11), where 50% agree, and the rest are split between somewhat agree and neutral. This suggests that leaders are not consistently convinced about compensation, benefits,

and management support, indicating potential areas for potential solutions. Within the Employee Group, there is also notable consensus on company and customer value (Q2 & Q8), collaboration (Q4), management support (Q14), and work-life balance (Q12). However, there are divergent opinions on compensation (Q6), management support (Q11), and company direction (Q13), with a spread across agree, somewhat agree, and neutral responses, highlighting these as potential areas for improvement from an employee perspective.

The results indicate significant gaps between the Leader and Employee Groups regarding recognition (Q9) and compensation fairness (Q6). The gap is particularly large in the case of recognition, with a 30% difference between the two groups. This suggests that the Employee Group has a more critical view of these issues than the Leader Group. On the other hand, both groups are aligned on customer value (Q8), recognition (Q9), tool adequacy (Q10), work-life balance (Q12), and managerial support (Q14). The areas with the most somewhat agree and neutral ratings include autonomy and innovation (Q1), collaboration across teams (Q3), compensation (Q6), benefits (Q7), and training adequacy (Q15). These areas require greater attention from the organization to address the lack of alignment.

Overall, the findings indicate that while there is strong alignment in certain areas, there are evident discrepancies in others, which could indicate underlying concerns that may need to be addressed to improve overall satisfaction and alignment within the company. But can further quantitative analysis by category help to understand perception gaps and areas for improvement?

### Category Analysis

Also, the means and standard deviation were calculated by category to analyze the survey data, which then enabled the perception gap to be quantified and ranked highest to lowest by absolute value, following Rizwan et al. (2021). This analysis can be found in Table 7 below.

Category	Leaders Agree Rating Mean	Standard Deviation	Employees Agree Rating Mean	Standard Deviation	Gap (Absolute Value)	Rank
Strategy	0.875	0.177	0.85	0.212	0.025	4
Structure	0.75	0	0.8	0.173	0.05	2
Culture	0.6875	0.289	0.625	0.252	0.0625	1
HCM	0.6697	0.238	0.7	0.223	0.033	3

**Table 7.** Survey Data Analysis by Category.

But how was this data calculated, and—more importantly—what does it mean? First, using JASP, an open-source statistical analysis software, each group’s agree ratings were added and divided by the number of questions for each category. For example, the culture category means were calculated by adding the agree ratings for the culture-related questions (see Table 5). Then, the sum of the ratings was divided by the number of ratings, producing a mean of .6875 (or 68.75%) and .625 (or 62.5%) for

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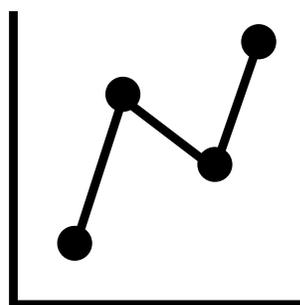
the leader and employee groups, respectively. This data essentially translates to the average rating for each group by category. Comparing the means of each group is a way to assess how each is aligned and related to the other in a given category.

But what about how to determine the alignment within the groups themselves? The standard deviation (SD) measures the average variability within a dataset (Bhandari, 2023). A standard deviation of zero would indicate no variance in the data; relatively, a higher SD indicates that the values are more spread out, while a lower standard deviation indicates that the values are closer to the mean. For example, 75% of the Leader Group agreed on all structure-related questions, resulting in an SD of 0. That would mean there is perfect alignment within that group for that given category. However, on culture-related questions, there was an SD of .289 for the Leader Group, meaning the ratings could skew by 28.9% from question to question or respondent to respondent.

Next, the gap measures the difference between groups by category and is calculated by subtracting one group's mean from the other. Since the number is the same no matter which group's mean is subtracted from the other, thus, the gap is presented as an absolute value. For example, structure-related questions had a gap of .05, meaning the groups were only 5% apart in that particular category.

Finally, each category's gap was ranked from greatest to least. The SD did not factor into the rankings since that number indicates intra-group misalignment, not inter-group. While intra-group misalignment is valuable to observe and analyze, one of the goals of the survey was to determine misalignment between EMT's leaders and employees. Therefore, the categories were ranked using the gap in means only. In other words, the larger the gap, the larger the misalignment between groups. In their study, Rizwan et al. (2021) used the same approach to determine the perception gap between the two groups. From another perspective, the larger the numerical gap, the more pronounced the perception gap in a given category. HCM-related questions were the most misaligned, followed by culture-related, structure-related, and strategy-related questions.

The perception gaps and other insights become abundantly clear when the data is presented visually, as in Figure 20.



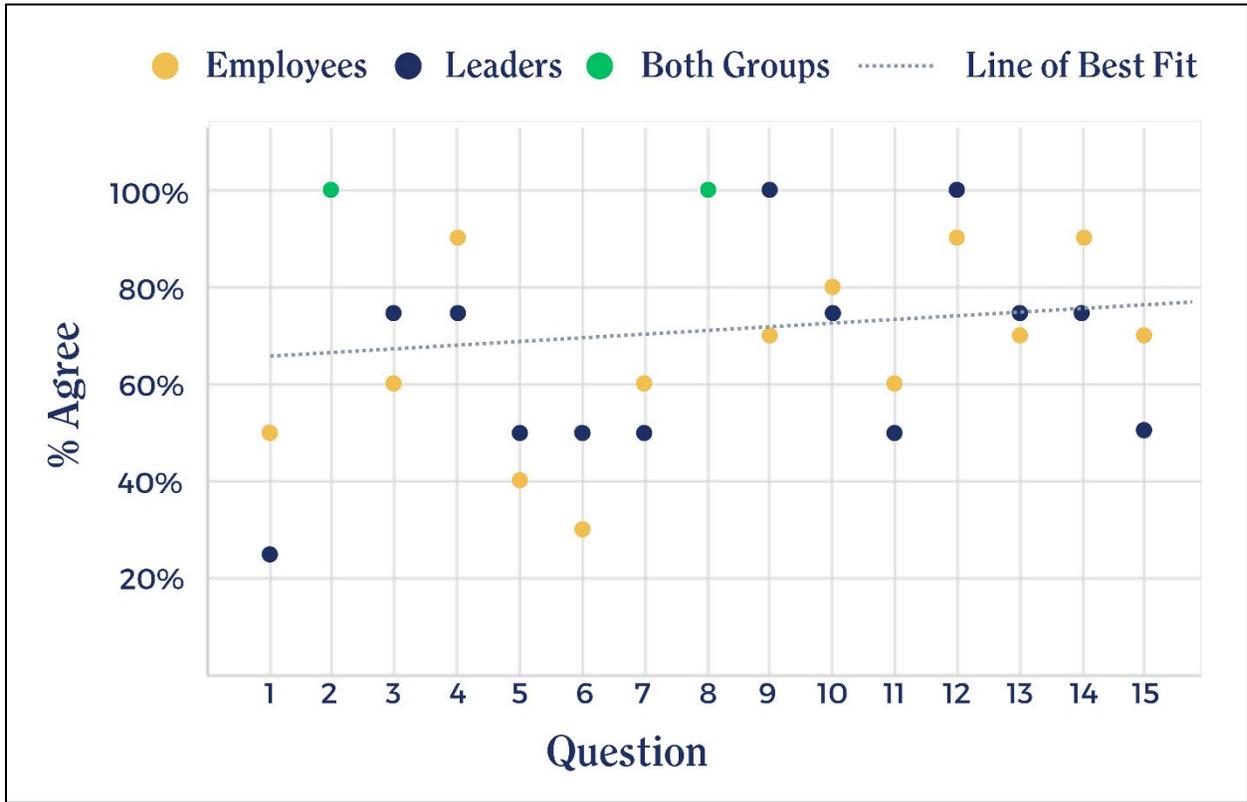


Figure 20. Agree Rating Scatterplot by Group.

In the scatterplot visualization, each dot represents the agree rating for each group by question, with yellow dots representing employees and blue dots representing leaders. Dots that are closer together indicate closer alignment between the groups on a particular survey item and vice versa, and green dots represent questions where both groups agree ratings were equal. Once the data were plotted, a few trends and insights rose to the surface. Based on the various ways to view the quantitative data, it became apparent that—while the data certainly skewed positively—there were notable differences in how each group viewed the various categories and specific questions.

### Analysis of the Quantitative Observations

The responses above reveal that the area with the most robust alignment between and within the groups relates to EMT’s human capital management. For example, leaders and employees agree that there are opportunities for growth and development (Q2), indicating strong alignment on the company’s professional development efforts. On the other hand, there is a significant perception gap between the groups on the adequacy of EMT’s employee recognition and appreciation (Q9), compensation (Q6), and benefits (Q7).

When looking at the data, it becomes clear that EMT has done a great job promoting a shared vision and offering growth opportunities to employees. However, some areas need attention, such as compensation, benefits, recognition, communication, and collaboration, to ensure everyone is motivated and working cohesively. Employees

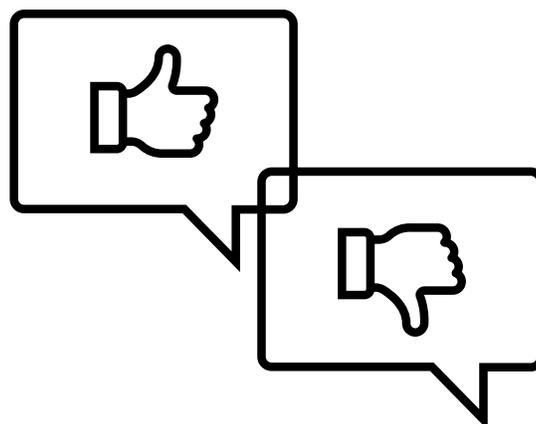
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and leaders are also not as aligned regarding employees' ability or authority to innovate, a phenomenon that must be addressed to achieve leaders' desires to scale the organization through innovation. To address these concerns, it may be helpful to implement leadership development programs that help leaders understand and listen better to their employees. Involving frontline management can also augment any solution since there is a high level of confidence in them among employees. Comprehensive compensation and benefits package reviews can also help ensure transparency and fairness. Finally, initiatives recognizing and appreciating employees' values and expectations can go a long way in boosting morale and motivation.

### Qualitative Analysis

One of the meaningful and consistent findings throughout this consulting report is that leading firms are adapting to Industry 4.0 by adopting cutting-edge technology to streamline operations and remain competitive in a dynamic business environment. In that same spirit, the researcher used the generative AI platform from Google GenAI, Bard, to conduct an analysis of the survey comments. Then, that data was used to create Sankey charts in ChartExpo (n.d.) for data visualizations in Figures 21 and 22. Sankey charts are helpful when categorizing multiple factors by matching them to two or more domains; the thicker the line from category to domain, the more comments there are within that category (Google Developers, n.d.). The tables used for the analysis can be found in Appendix P.

Google GenAI (2023) identified 12 common themes within the qualitative data: innovation/autonomy, growth/development, collaboration, senior leadership, compensation (comp.)/benefits, communication, customers, tools/resources, work-life balance, company direction, and manager support. While the comments from both groups were sparse, some exciting insights rose to the surface when the qualitative data was visualized in the charts below.



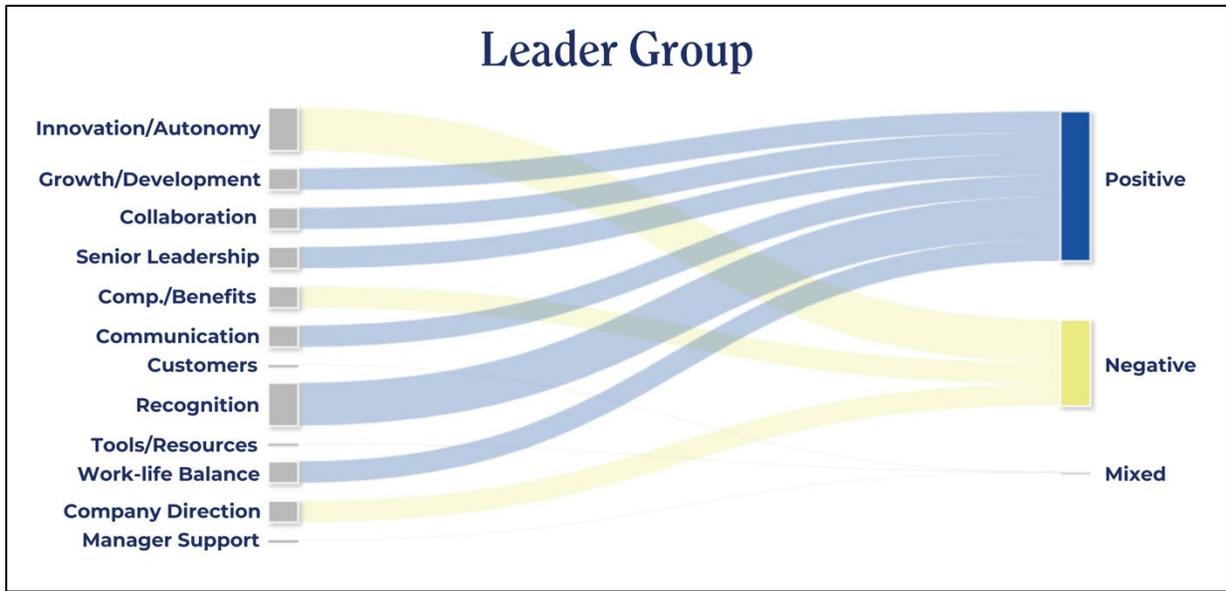


Figure 21. Leader Group Sankey Chart.



Figure 22. Employee Group Sankey Chart.

The Leader Group's comments were generally positive, with recognition being the strongest category. According to Bard's sentiment analysis, the group also negatively rated innovation/autonomy, compensation and benefits, and company direction. The Employee Group's comments were far more negative than the leaders', with only three categories rated as positive: growth/development, customers, and—very slightly—recognition. Compensation/benefits received the most negative comments from employees, with every other category being rated negatively as well. The only exception is collaboration, which received mixed sentiment comments.

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### **Category Analysis**

For example, both groups had a high level of alignment on strategy-related questions (Q8 and Q13). That makes perfect sense, considering the strategy category had the lowest numerical gap. Structure-related questions (Q3, Q4, and Q14) were categorically some of the survey's most well-aligned. This indicates that both employees and leaders believe they can easily work together cross-functionally (Q3), collaborate with those with whom they may not highly relate or agree (Q4), and have a high level of faith in support from management (Q14).

While culture was the second most misaligned numerically as a category, the groups were also relatively well-aligned on two culture-related questions, Q5 and Q12, indicating a high trust in senior leadership and belief in a positive work-life balance provided by EMT, respectively. The two questions that received some of the highest marks, as well as perfect alignment—both groups 100% agree—are Q2 and Q8, indicating a high level of support for the organization's professional development efforts (Q2) and great pride in the company's products (Q8). However, without Q2, the HCM category appears much bleaker than Table 7 reflects. Most of the other HCM questions—Q6 (compensation), Q7 (benefits), and Q11 (workload)—were some of the lowest-scoring questions in general, and Q6 had one of the most substantial gaps (20 percentage points). There is a similar phenomenon with strategy-related questions. While Q8 (pride in products) was tied for the highest-rated question, Q13 (company direction) ranks much lower, falling below the line of best fit, with a high level of alignment between how leaders and employees perceive the company's new direction.

**Strategy** Based on the analysis, the company's strategy is generally well-received. The survey data shows a strong correlation between the value the company provides to its customers (Q8) and the direction the company is taking (Q13). However, while the data suggests that there is some alignment, qualitative feedback indicates that there is still room for improvement in terms of creating a shared vision and understanding of the company's strategic objectives following the M&A.

**Structure** The results showed a slightly high misalignment in the structure-related questions, with a gap of 0.05. This category ranked second highest in misalignment. There was significant agreement on teamwork (Q3), diversity (Q4), and managerial support (Q14). However, qualitative insights revealed that the structural aspects were experienced differently across various departments and levels, highlighting the need for a more nuanced analysis.

**Culture** The questions related to culture showed significant misalignment, indicating discrepancies in how cultural values were perceived and implemented within EMT. The qualitative data revealed issues such as lack of authority to innovate (Q1), trust in senior leadership (Q5), and inadequate recognition (Q9). Notably, though, no challenges were noted in achieving work-life balance (Q12). Employees' comments regarding the need for better recognition and trust indicated specific cultural practices that needed improvement.

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**Human Capital Management** The results of the human capital management survey questions showed some areas where employee expectations were not being met. While there was agreement that there were opportunities for growth and development (Q2), there were gaps in compensation (Q6), benefits (Q7), tool adequacy (Q10), team support (Q11), and training (Q15). The feedback provided by employees showed that there was dissatisfaction with compensation and benefits. This highlighted the need for the EMT to review and potentially overhaul its total rewards offerings to better align with employee expectations and market standards. The qualitative data provided further context that highlighted specific areas for improvement. For example, employees acknowledged the professional development opportunities but expressed concerns about compensation, benefits, and recognition, which were essential to their overall satisfaction and engagement.

### **Putting the Data Together**

The engagement survey provided quantitative data presenting the organization with strong evidence of alignment in key areas, particularly in strategic and structural domains. Both leaders and employees agree on the quality of tools provided for their jobs and the value of the company's offerings to customers. This indicates a robust operational foundation and a shared belief in the company's mission. However, the survey also revealed significant perception gaps, particularly in the areas of recognition, compensation, benefits, the ability or authority to innovate, collaboration, and communication between the groups and EMT's business units. These gaps may indicate underlying issues in the company's incentives, communication, and collaboration systems.

The qualitative feedback provides a deeper understanding of the findings, highlighting the nuances behind the numbers. While leaders view the company's culture and recognition practices positively, employee comments reveal significant dissatisfaction with compensation, benefits, and the perceived ability to innovate due to strict product specifications. Employees also expressed a lack of confidence in leaders' familiarity with the actual work that occurs but high confidence in their frontline supervisors. These insights suggest the need for EMT to revisit its reward and recognition systems, particularly in the areas of compensation and benefits, to better align with the workforce and incentivize other kinds of innovation to support the company's new and largely popular strategic direction. The combination of quantitative and qualitative data emphasizes the importance of comprehensive reforms in EMT's compensation structures and communication and collaboration strategies to improve employee satisfaction and alignment with the company's goals.

### **Potential Solutions**

So, what solution(s) can address the myriad issues surrounding EMT's strategy, structure, culture, and human capital management? Servant leadership, Greenleaf-informed executive coach Banu (2021) writes that organizations and leaders should identify and maximize their strengths to overcome weaknesses. But with two areas of great strength and numerous weaknesses, there is no straightforward way to discern only one or two potential solutions. Innovative projects can be stopped entirely when there are too many weaknesses that it becomes extremely unlikely for the strengths

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to overcome—or too many strengths that one or more of them can become imbalanced and become a weakness, according to Drs. McLaughlin and Richins' (2015) textbook on innovation.

Rather than one or two potential solutions that would capitalize on EMT's strengths to overcome weaknesses, it appears that based on Morgan et al.'s (2019) description and requirements of a *kitchen sink strategy*—one that involves many interrelated and interdependent smaller solutions—would most benefit EMT's situation since they have the capacity (EC24, EC25) and development strength (LC3, EC3, EC4) to do so. This all-hands-on-deck, no-stone-left-untuned strategy should address each of the four misaligned M&A integration categories. In other words, what is needed at EMT is not necessarily a singular solution targeted at one or two M&A integration categories, per se, but a comprehensive organizational development strategy that addresses each one, according to the Association for Talent Development (n.d.). The *be*, know, do framework of the VBM will help organize the multi-faceted solution package.

### Potential “Be” Solutions

A few solutions could develop the “be” aspect of the VBM based on the information gained throughout the study thus far. After EMT's acquisition, the new executives developed a mission, vision, and values (MVV) they hoped would define the identity of the new organization. A firm's MVV is its foundational ethos and reason for being and should be internalized throughout an organization at every level so that all employees feel a sense of ownership (Coleman, 2022). It does not appear that this is the case at EMT, particularly among employees. The survey question (Q13) related to the MVV garnered below-average ratings from employees; 30% of employees were neutral toward that question. Moreover, the MVV-related question was among those with the greatest split among the Employee Group, with about a 70%/30% split between employees rating it as either agree or neutral.

The qualitative data was a bit more favorable, but comments from both groups (LC11, EC28) indicated there was at least a possibility that there was a minority of employees who were not on board with where the company was going. While the survey did not collect any demographic data to protect anonymity, the general population at EMT consists of about one-third of employees who were with the organization pre-M&A and about two-thirds of employees who joined only after the acquisition. Perhaps the pre-M&A employees do not agree with or fully know the new MVV. Or perhaps communication of the MVV has not been consistent or clear enough. Or perhaps the organization's onboarding program does not effectively or uniformly introduce the MVV to new employees. Perhaps something unknown is still related to the MVV outside the scope of this study. To address the MVV-related problem, the *be* solution could involve re-formulating and re-introducing the MVV to the organization, as Coleman (2022) recommends. Another solution could be to regularly give company-wide presentations on aspects of the new MVV at its well-regarded bi-weekly company lunches (EC13, EC20, EC28) since it often takes constant repetition for MVVs to stick lunches (Webb, n.d.). EMT could also integrate the MVV at every stage of its *employee lifecycle*—from hire to fire—as a part of the employee experience (Sharma, 2022).

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### Potential “Know” Solution(s)

Training is also vital to the potential test solutions package as the *know* solution. The survey underscored the positive reception of the organization’s professional development programs, notably among its employees. For example, one illustrative comment from an employee (EC33) highlights this sentiment: “If we do not have the training to do our job, then the company will be more than happy to provide the training needed” (EC33). Employees (EC2, EC4, EC32) and leaders (LC3) shared similar perspectives. Yet, something is still missing from the training and development initiatives at EMT.

Based on the literature and survey results, a potential solution that is most obviously needed focuses on leadership training. Another potential solution would be to offer training on servant (Zeng & Xu, 2020), adaptive (Heifetz et al., 2009), and virtuous (Hein & Wilkinson, 2015) leadership. By placing followers’ personal and professional needs at the forefront, servant leaders create environments that are more receptive to change, according to Oliveira (2012). Further, Yukl and Mahsud (2010) state that adaptive leadership is crucial in promoting innovation and adaptation. These authors argue that adaptive leaders are particularly effective since they “articulate an appealing vision of the likely benefits from proposed changes” (Yukl & Mahsud, 2010, p. 87). Finally, proponents of virtuous leadership propose that the style’s emphasis on trust, empathy, and courage can enhance organizational performance, innovation, quality, and employee retention (Cameron et al., 2004). Considering the literature and some survey results that indicate low trust in EMT’s leadership and leaders’ unfamiliarity with employees’ daily activities (EC11, EC31), leadership training is undoubtedly a warranted potential solution.

But what about employee training? The results for Question 2 (“There are opportunities for people to grow and develop . . .”) indicate confidence in the organization’s capability to foster future growth and development opportunities; Q2 was one of the two perfectly aligned questions, with both groups in unanimous agreement. On the contrary, the results for Question 15 (“People feel they have the training they need to do their job”) indicate comparatively diminished confidence in the adequacy of current training for employees to effectively perform their immediate job functions. While still showcasing strong support, only 70% of employees agreed with Question 15—a 30 percentage point decrease compared to Question 2. Notably, however, two employees commented favorably (EC32, EC33). The Leader Group, on the other hand, was far less confident in the company’s current level of training—only 50% agreed, 25% somewhat agreed, and 25% were neutral. In fact, Q15 is among the few questions that received the most neutral ratings (L–25% neutral, E–10% neutral).

There seems to be a problem with the training and development programs in the organization, as indicated by the difference between the seemingly divergent survey results for Questions 2 and 15. The survey results show that employees are confident about future growth opportunities but less sure about the adequacy of their current training. This disparity may be due to a couple of factors. Firstly, the training may not align with employees’ immediate job requirements. Although the organization aims to promote long-term professional growth, the training might not be tailored enough to meet the specific and practical needs of employees’ current roles. Yet, that seems

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reasonably unlikely since employees believe they are well-trained for their current jobs. Another—perhaps more likely—possibility is that job requirements and industry standards are changing rapidly due to technological advancements, and training at EMT may not keep up with the pace of change (Tamayo et al., 2023). Either way, one solution could be to regularly update training programs and materials to meet the current and future needs of the organization. Another solution could be to adopt Tamayo et al.'s (2023) employee-as-consumer learning and development strategy. This strategy involves understanding the skills they currently have (*supply*) through an organization-wide skills assessment, assessing the skills needed to be competitive in their job and industry (*demand*), and then employees have the ability to act as consumers (O'Boyle & Hogan, 2019) by allowing them to co-design training programs alongside their leaders and supervisors.

### Potential “Do” Solutions

EMT needs to adapt to the rapidly changing business environment to remain viable in their competitive high-tech industry (Mordor Intelligence, n.d.). One potential solution would be to reorganize their organizational structure to support change and innovation by reducing bureaucracy and flattening their structure, as Podolny and Hansen (2021) recommend. Organizational restructuring often follows M&As and can often be needed when a firm is not meeting performance expectations, wants to engage in innovation, or simply knows something is broken in the company (Lucidchart, n.d.). Another potential solution would be to form a task force or task force to track industry trends and recommend solutions to respond to them, as Fuller (2021) described a manufacturer has already done.

One strategic framework, in particular, has been shown to offer organizations great success in increasing motivation, innovation, and the ability to scale effectively: MIT Sloan School of Management professor Zeynep Ton's (2014) *good jobs strategy*. Ton conducted a case study on several forward-thinking companies like Southwest Airlines, UPS, Toyota, Costco, Trader Joe's, and others to determine any common practices or strategies these organizations use to maintain a competitive advantage in a rapidly evolving business landscape. What Ton discovered is that these companies all utilize what she dubbed the *good jobs strategy*—a comprehensive, double-edged sword approach to virtuous organizational development and operations that involves two overarching strategies that must go hand in hand:

- investing in *people excellence* (i.e., compensation, benefits, training/development, and work-life balance), and
- offsetting that high investment in people by focusing on *operational excellence* (i.e., streamline products, standardize but empower, cross-train every employee, and operate with slack; Ton, 2014).

On their own, each of the facets of the good jobs strategy seems self-explanatory and seemingly easy to employ; yet, not many companies are willing or able to enjoy the benefits of this strategy—happy and productive employees, competitive prices, and excellent customer service—because, according to Ton (2014), each aspect of the strategy has “to be carried out carefully, forcefully, continuously, and in the face of

many obstacles” (p. ix). Table 8 below breaks down each aspect of the good jobs strategy. One potential solution for EMT is to implement the strategy partially or fully.

Strategy	Description
<b>People Excellence</b>	Invest in above-market compensation, benefits, and work-life balance.
<b>Operational Excellence</b>	Offset people-related investments by focusing on operational excellence.
<i>Streamline Products</i>	Offer less products, not more. This allows organizations to focus on making their best products even better. One can think of the difference between a restaurant with a one-page menu versus a 10-page menu.
<i>Standardize but Empower</i>	Companies should create standard operating procedures for making products or offering services but should also give employees the autonomy to make real-time decisions about improving processes to make their jobs easier and customers happier without cutting corners or acting unethically.
<i>Cross-train</i>	Companies should ensure that each employee is not only trained on their job but is also sufficiently trained in the essential functions of at least one other job. This allows any employee to be deployed to another job or team if and when they are needed.
<i>Operate with Slack</i>	Operate with more employees, not less. While it seems counterintuitive, companies should not operate on a skeleton crew to keep labor costs down. Instead, they should have more employees than are needed to allow time for cross-training, group process improvement, healthy competition, and termination of chronically underperforming employees as needed.

**Table 8.** Good Jobs Strategy (Ton, 2014).

### List of Potential Solutions

The potential solutions can be categorized under the be, know, do framework based on the comprehensive analysis of the literature, EMT's problem, and the survey results. Table 9 contains the summary of the potential proposed solutions:

Solution	Description
<b>Be</b>	<b>What kind of organization does EMT want to be or become?</b>
<i>Integrate MVV into Employee Lifecycle</i>	Embed MVV in every stage of the employee experience, from hiring to separation.
<i>Regular MVV Presentations from Frontline Managers</i>	Implement presentations on MVV aspects during bi-weekly lunches.
<b>Know</b>	<b>What does EMT need to know to get to where it wants to be?</b>
<i>Leadership Training</i>	Conduct training with leaders on servant, adaptive, and virtuous leadership styles to enhance trust and familiarity.
<i>Employee Training Program Update</i>	Regularly update training programs to adapt to rapid industrial and technological changes.
<i>Employee-Directed Training</i>	Empower employees as consumers to co-develop their own training programs with leaders and supervisors based on a skills assessment and competitive analysis.
<b>Do</b>	<b>What does EMT need to do to get to where it wants to be?</b>
<i>Implement a Modified Good Jobs Strategy</i>	Implement the Good Jobs Strategy using a compensation task force to evaluate and recommend total rewards modifications and a continuous improvement task force to recommend process and product application innovations.

**Table 9.** Potential Solutions.

The next step will involve tailoring these potential solutions into a refined package that aligns with organizational needs, literature, and the frameworks discussed in the MPI.

## Test Solutions Evaluation and Recommendation

Throughout this study, from the preliminary investigation of the environment, industry, and organizational situations to the comprehensive literature review and culminating with the planned inquiry analysis, this applied doctoral project aims to answer the research question: *How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?* To that end, the recommended test solutions are detailed below.

### Recommended *Be* Solutions

Table 10 contains the two recommended *be* solutions. The first recommended *be* solution is for EMT to integrate the new MVV into each stage of the employee lifecycle—from hire to fire—as recommended by Sharma (2022): job postings, new

employee onboarding, performance reviews, promotion decisions, and justification for terminations. The solution addresses culture and HCM, the two lowest-rated M&A alignment categories, answers the DRQ by helping the firm to fulfill its newfound MVV, is supported by the literature, and utilizes the VBM social capital building blocks of reinforcing change and innovation with formal mechanisms and fostering understanding and conviction. Appendix Q provides a sample job posting preamble and a sample performance review supplement that can be used to inform promotions and terminations.

Solution	Description(s)	Alignment Category	DRQ Area	Supporting Concept(s) and Literature	VBM: Social Capital Building Block
Be	What kind of organization does EMT want to be or become?				
<i>Integrate MVV into Employee Lifecycle</i>	Embed MVV in every stage of the employee experience, from hiring to separation.	Culture, HCM	Mission, Vision, and Values	Sharma (2022)	<ul style="list-style-type: none"> <li>Reinforce change and innovation with formal mechanisms</li> <li>Fostering understanding and conviction</li> </ul>
<i>Regular MVV Presentations from Frontline Managers</i>	Implement presentations on MVV aspects during bi-weekly lunches.	Culture, HCM	Mission, Vision, and Values, Embrace of change and innovation	Edmondson & Lei (2014), Webb (n.d.)	<ul style="list-style-type: none"> <li>Reinforce change and innovation with formal mechanisms</li> <li>Fostering understanding and conviction</li> </ul>

**Table 10.** Recommended *Be* Solutions.

Finally, the second recommended solution is to implement presentations on the MVV during weekly lunches. However, this is not quite a purely new solution for EMT to implement; instead, it is a modification of their existing practice. Both groups spoke highly of the bi-weekly company lunch meetings, during which executives “[let] everyone know where this company is going and where he would like to see us in the future” (EC28). But, despite the regular communication from executives, it seems extremely likely that it is not engaging the remaining holdouts of the company’s new direction. Enabling change takes great trust and psychological safety (Edmondson

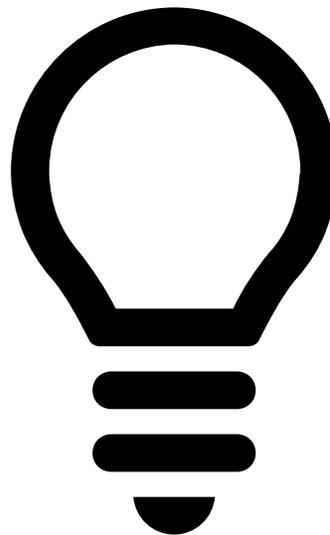
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and Lei, 2014). Yet, the survey results showed that the employees largely do not trust senior leaders, but they do, in fact, have confidence in their frontline managers. Therefore, the recommended solution would be to have frontline managers give presentations on the new MVV.

The potential solution to reformulate and reintroduce the MVV, while justified by the literature, is not recommended because both groups were numerically well-aligned with a relatively small gap, and no respondent ever suggested the MVV is faulty in any way in and of itself. In fact, leaders and employees alike speak well of the company's new direction—with the only problem being that some employees are still not fully bought in. By integrating the MVV into the entire employee lifecycle, the remaining holdouts will either be brought into the fold or terminated, and those who truly embody it will have that reflected in their reviews to inform any promotion decision.

### **Recommended *Know*Solutions**

Table 11 details the recommended *know* solutions. The first recommended test solution is an intensive and comprehensive leadership training program focusing on change-and-innovation-enabling servant, adaptive, and virtuous leadership styles. Lacerenza et al. (2017) determined that leadership training almost always produces at least minimally positive results, there is compelling evidence that any solution should involve training to develop those leadership styles in EMT's leaders. The fact that the leadership—by no fault of their own—have not yet been successful at motivating change and innovation also warrants training on the styles of leadership shown to enable those things. The solution directly answers a major aspect of the DRQ: Leaders can enable change and innovation by utilizing leadership styles shown to enable change and innovation in followers.



Solution	Description(s)	Alignment Category	DRQ Area	VBM: Social Capital Building Block
Know	What does EMT need to know to get to get to where it wants to be?			
<i>Leadership Training</i>	Conduct training with leaders on servant, adaptive, and virtuous leadership styles to enhance trust and familiarity.	Culture, HCM	Leadership	<ul style="list-style-type: none"> <li>• Reinforce change and innovation with formal mechanisms</li> <li>• Fostering understanding and conviction</li> <li>• Developing talent and skills</li> </ul>
<i>Employee Training Program Update</i>	Regularly update training programs to adapt to rapid industrial and technological changes.	HCM	Mission, Vision, and Values	<ul style="list-style-type: none"> <li>• Reinforce change and innovation with formal mechanisms</li> <li>• Fostering understanding and conviction</li> <li>• Developing talent and skills</li> </ul>
<i>Employee-Directed Training</i>	Empower employees as consumers to co-develop their own training programs with leaders and supervisors based on a skills assessment and competitive analysis.	HCM	Mission, Vision, and Values	<ul style="list-style-type: none"> <li>• Reinforce change and innovation with formal mechanisms</li> <li>• Fostering understanding and conviction</li> <li>• Developing talent and skills</li> </ul>

**Table 11.** Recommended *Know* Solutions.

Additionally, the next two recommendations involve employee training. The first recommendation is to regularly update company training materials and programs to adapt to rapid industrial and technological changes. The second recommendation is to empower employees as consumers to co-develop training programs with leadership and managers. The solution

- is based on the literature and justified by the survey results, which showed that leadership do not fully believe that employees are adequately trained to do their jobs (L-50% agree, L-25% somewhat agree, L-25% neutral).

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- helps to build a stronger team, a major goal of the company.
  - reinforces change and innovation with formal mechanisms, fosters understanding and conviction, and develops talent and skills—thereby developing social capital per the VBM.
  - is a prime example of involving employees in creating the solution (The Josh Bersin Company, 2022).

The potential solution to restructure EMT was considered non-viable since the company has already flattened its organizational structure after the recent acquisition, as described in Section 2 (Figure 6). Additionally, creating an industry monitoring task force was not recommended on its own since it was included as a part of the good jobs strategy recommendation.

### Recommended *Do* Solution

The recommended *do* solution is for EMT to adopt a tailored form of the good jobs strategy. The entire point-by-point application of the good jobs strategy can be found in Appendix R, but a concise recommendation for the *do* solution in the form of the good jobs strategy framework follows:

- People Excellence
  - Create a culture of innovation and improve low approval of compensation by forming a compensation task force to develop a total rewards program.
- Operational Excellence
  - Create a continuous improvement task force that will give employees their needed autonomy (LC1) and foster greater collaboration (EC5, EC7, EC8) by allowing employees to overcome strict product specifications (EC1) by recommending process improvements.
  - Do not hire more employees; instead, identify employees to cross-train with the nearly one in four employees at or near retirement age (Table 4).

Maher (2000) and Fuller et al. (2021) detailed that one large manufacturing firm formed small teams after an M&A that were trained on the new culture, formed action plans to address cultural change, acted as change agents, and assessed the success of change initiatives. Further clarification is needed, though, to tailor the test solution: Who should be on the task forces? Frontline management is an integral piece of the post-M&A integration strategy since these managers often execute strategies on behalf of senior leaders (Clarke et al., 2020), and the survey data revealed that employees have a high faith in their direct supervisors (EC30, EC31). Further, nearly half the company consists of administrative employees, with the remainder split between the Antennas Division and Contract Manufacturing (Table 4). Therefore, task forces should include frontline managers and employees from each department to ensure equity.

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## The Driving Research Question: Was it Answered?

This applied doctoral project aims to answer the research question: *How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?* At this point, the driving research question has assuredly been fully answered. Based on the literature and survey results, leadership can motivate individuals and teams to embrace change and innovation by evaluating EMT's total rewards program to ensure it aligns with the total rewards best practices from the comprehensive review (compensation task force). By creating two task forces that are representative of the organization and charged with collaborating together to overcome restrictions on product innovation and, instead, focusing on process innovation and recommendations for new ways of working, the solutions also aid in answering the driving research question (continuous improvement task force). The success of these change and innovation efforts is further supported by the training initiatives that aim to develop the requisite leadership styles and employee skills to enable change and innovation. All of this helps the organization fulfill its newfound MVV, which will also be integrated into the employee lifecycle and communicated by trusted frontline managers to ensure greater and greater acceptance of them by more and more employees.

### Limitations and Generalizability

The researcher knows that the study has certain limitations that could impact it. The case study format evaluates one small, privately owned business at one point in time, with its unique history and other characteristics. The response rate and the fact that it was difficult for respondents to answer on behalf of the average employee, as requested, also limit the results. Therefore, the research and solutions presented above may not necessarily be generalizable to all organizations in all industries. The results and analysis, however, aim to provide insights into change and innovation that could be translatable to any organization, especially those in a high-tech industry.

### Summary

This section detailed the planned inquiry, an employee engagement survey made available to the leaders and employees at EMT. The survey was designed to help answer the driving research question, close any remaining knowledge gaps, determine if and to what extent there were perception gaps between leaders and employees, and gain insights into which potential test solutions should be implemented.

Next, a multiple perspectives framework was constructed to help reframe the problem and inform the data analysis. The framework also aided the systematic evaluation of the potential solutions considering the literature, multiple perspectives, and planned inquiry results and analysis. The data from the survey was extremely valuable, showing there is, in fact, a demonstrable gap between how leaders and employees perceive the strategy, structure, culture, and human capital management practices at EMT. The open-ended comments from leaders and employees provided additional insights into what solutions would be most effective to close those gaps and solve the driving research question:

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- Integrate the MVV into the employee lifecycle
  - Give regular MVV presentations by frontline managers
  - Conduct servant, adaptive, and virtuous leadership training
  - Update the employee training program regularly
  - Allow for employee-directed training
  - Implement the good jobs strategy with a compensation task force and continuous improvement task force

Together, the packaged solution fully answers the driving research question, helps bridge the gap between the current and desired states, is warranted by the literature, survey results, and multiple perspectives evaluation, and will assuredly help EMT's leaders motivate change and innovation to support the organization's new mission, vision, and values. The next and final section of the report outlines a change management plan to help EM Technologies implement and monitor the results of the test solutions.

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## Section 5: Change Management Plan

This final section is crucial as it outlines the change management plan that EMT will use to successfully implement the recommended solutions now that the problem has been thoroughly identified and investigated: Due to a risk-averse approach of former ownership, which disincentivized change and innovation, as well as unaligned post-M&A strategy, structure, culture, and HCM, EM Technologies is not yet equipped to fully participate in Industry 4.0 or fulfill its new mission, vision, and values.

The previous section included details about the planned inquiry designed and deployed to investigate further the situation at EMT and to what extent its leaders and employees align on the post-M&A strategy, structure, culture, and HCM. The results and analysis of the data uncovered there was, in fact, a perception gap between leaders and employees. While the groups had a broadly positive sentiment toward the organization, a deeper analysis revealed cracks beneath the surface. There were misalignments across the board between the Leader and Employee Groups. Definite improvements are needed to align the organization's strategy, structure, culture, and HCM. In particular, a multi-dimensional solutions package rose to the surface—including adjustments to how the organization's MVV is operationalized, training for post-M&A leadership to gain trust and confidence, and two intentionally formed task forces to implement the practices of people and operational excellence. By adopting the multi-part solution, EMT can better prepare from the top down to move into the future as a change-ready and innovative organization to thrive in Industry 4.0.

This last section includes an overview of the business case for change with details about how EMT's leadership reacted and responded to the proposed solutions. Then, attention turns to the need for well-managed change and the benefits of developing and implementing a change management plan. The section concludes with a step-by-step description of the change management and solution implementation plan.

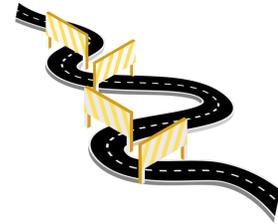
### Making the Case for Change

The researcher presented the findings and recommendations of this study to the partner organization on Friday, December 1, 2023. The presentation lasted about 90 minutes and was organized similarly to this applied doctoral project. First, the researcher detailed the problem investigation and diagnosis, placing the need for change in light of the rapidly changing business and technological environment, the exciting opportunities for high-tech manufacturing in Industry 4.0, and the challenge of the current situation at EMT.

The researcher and representatives of the partner organization spent a great deal of time parsing out the meaning and nuances of the problem statement and driving research question; a lively, rich conversation ensued. After the group felt comfortable that everyone understood the problem statement and driving research question, attention then turned to the findings of the survey analysis. While still highlighting the positive aspects of the survey, the researcher framed the misalignments between and within the organization's strategy, structure, culture, and human capital

management as roadblocks in the way of EMT fully participating and thriving in Industry 4.0 and achieving its post-M&A MVV.

When reaching that milestone in the conversation, it was abundantly clear to all that change was necessary. Next, the researcher explained the use of the multiple perspectives framework to choose and assess possible solutions in light of the literature, data, and experiences of those in the room. Much time was spent emphasizing the importance of a solutions package built upon the be, know, do model, answers to the DRQ, and how best to support organizational goals. Once the group understood the multiple perspectives framework, they discussed the relative merits of each potential solution, engaging in a valuable dialogue that involved the participants in the presentation itself. The researcher then offered the multi-part solutions package shown in Table 12, which was accepted without modification.



Solution	Description
<b>Be</b>	<b>What kind of organization does EMT want to be or become?</b>
<i>Integrate MVV into Employee Lifecycle</i>	Embed MVV in every stage of the employee experience, from hiring to separation.
<i>Regular MVV Presentations from Frontline Managers</i>	Implement presentations on MVV aspects during bi-weekly lunches.
<b>Know</b>	<b>What does EMT need to know to get to get to where it wants to be?</b>
<i>Leadership Training</i>	Conduct training with leaders on servant, adaptive, and virtuous leadership styles to enhance trust and familiarity.
<i>Employee Training Program Update</i>	Regularly update training programs to adapt to rapid industrial and technological changes.
<i>Employee-Directed Training</i>	Empower employees as consumers to co-develop their own training programs with leaders and supervisors based on a skills assessment and competitive analysis.
<b>Do</b>	<b>What does EMT need to do to get to where it wants to be?</b>
<i>Implement a Modified Good Jobs Strategy</i>	Implement the Good Jobs Strategy using a compensation task force to evaluate and recommend total rewards modifications and a continuous improvement task force to recommend process and product application innovations.

Table 12. Approved Solutions Package.

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Finally, the presentation concluded by revisiting the driving research question and multiple perspectives framework. The researcher asked whether the solutions package satisfactorily answered the research question and fulfilled each aspect of the evaluation model. The answer was a resounding “Yes.” Accordingly, the recommended solutions were approved without modification because it was undeniable that their successful implementation could strengthen EMT’s competitive advantage in a rapidly changing business and technological environment, bring the organization to a place where it could thrive in Industry 4.0 by embracing change and innovation, and better align EMT’s strategy, structure, culture, and HCM to help the organization fulfill its newfound mission, vision, and values. The group left the boardroom more excited and ready for EMT’s future than when they entered 90 minutes prior.

## Reframing the Organization

It has been frequently discussed throughout this study that it is crucial to fully understand all that can be known about the organization and its associated problems. Otherwise, potential solutions—even well-designed ones—could be ill-fitting and inadequate to create transformational and lasting change. One way to understand an organization and a problem more fully is to reframe them, or think about them in another way, with other frameworks, or from another perspective. To reframe EMT and its problem, it is key to understand the type and scope of the recommended changes, as well as the firm’s readiness for change.

### Type of Recommended Change

When attempting organizational change, it is essential to identify the type, scope, drivers, and constraints of change, contrast the current and ideal states, describe any remaining concept shifts, and determine an organization’s readiness for change. Gupta (2022) outlines several of the most common types of changes, including strategic, structural, people-centered, technological, unplanned, and reactive, which all take different intervention tactics to ensure success. A more streamlined and practical way of looking at changes views all changes somewhere between transformational and incremental, as shown in Figure 23 (Harvard Business School Online Staff, 2020). Transformational changes fundamentally alter the organization in part or whole, like changing the name of a business or moving away from a brick-and-mortar to an e-commerce business model (Harvard Business School Online Staff, 2020). On the other hand, incremental changes do not necessarily alter an organization radically; instead, these changes involve fine-tuning strategy, structure, culture, and human capital.



Figure 23. Change Spectrum.

The solutions recommended for EMT are incremental. Rather than replacing leaders, the findings suggest training them. Instead of adopting a new mission, vision, and values (MVV), the suggestion is to integrate and change how they are communicated and institutionalized culturally. The aim is to generate process innovations instead of

launching a massive R&D campaign to create a brand-new product and so on. Nevertheless, just because incremental changes do not profoundly or pervasively alter an organization, it does not mean they are easy to manage. As a mere one-degree difference in a ship’s direction can result in hundreds of miles of difference in trajectory, incremental changes steer the organization's direction and must be precisely, carefully, and deliberately implemented and reinforced (DiGiovanna, 2023; Harvard Business School Online Staff, 2020).

**Scope of Recommended Change**

While the nature of the recommended changes is incremental in nature, they are certainly wide in scope. The scope of a change is a determination of the size, scale, and impact of a change in terms of the impacted people, and the level of time and resources needed to implement the change strategies (Creasey, n.d.). Other than the capital investment I needed for any changes to EMT’s total rewards, as recommended by the compensation task force, there will be indirect costs—those not associated with production (University of Louisiana Lafayette, n.d.). A major indirect cost will be the time spent implementing the solutions. Using the estimated hours for each step of the change management plan (CMP) found in Appendix S, and the most recent HR report from EMT, the estimated cost for the implementation is provided in Table 13.

Estimated Hours	Average Wage <sup>45</sup>	Estimated Labor Cost
346	\$35.61	\$12,321.06

**Table 13.** Estimated Labor Cost.

However, not to be overlooked are social and spiritual capital investments to consider, as framed in the VBM. The solutions require an immense investment of social capital. They will also require the expenditure of a lot of spiritual capital—the solutions are deeply relational and hit right at the core of who the organization, teams, and individuals are at an unseen level. The scope of capital needed is comprehensive. In addition, the scope of the recommended changes is wide-reaching; they do not simply focus on one department or one policy or program. Instead, the changes will impact the entire organization—every person, team, and aspect of EMT’s strategy, structure, culture, and human capital. Because of the broad scope of the changes, despite them being incremental, EMT’s readiness for change should also be considered through a people-centered lens in order to protect spiritual and social capital.

**Reframing the Organization One Last Time: Readiness for Recommended Change**

One last concept should be discussed at this point: What if people are exhausted by change? It has not been a significant consideration of this ADP that all of what has been discussed after the 2021 acquisition occurred during some of the most challenging times of the COVID-19 pandemic when the chaos of the events of 2020 gave way to waxing and waning periods of normalcy that characterized the peak of the pandemic in 2021. What if pre-M&A employees craved the stability of the former owners? Sure, it was a period of time when change and innovation were discouraged, but at least employees knew what to expect. What if employees, regardless of when

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they were hired, wanted to come to work and have as much as possible predictability when everything in the socio-cultural environment was in chaos?

Further, EMT has experienced foundational changes in rapid succession surrounding the 2021 acquisition. Shortly after the M&A, the company hired a new COO tasked with shepherding the company through the transition and overseeing day-to-day operations. The COO knew that the M&A would only be successful if he surrounded himself with a well-rounded team of people to help with the integration efforts. Within a few months of the M&A, the COO hired a new human resources director, corporate controller, senior engineer, junior engineer, and other key roles. Each of these roles was newly created as well. During this time, several new technologies and systems were implemented to handle the exponential growth the company was experiencing, as described in Section 1. Unfortunately, a few months after the M&A, the company's longest-tenured employee and president passed away. Also, the EMT's long-standing CFO retired, and a new vice president was hired to fulfill many of the late president's duties, specifically overseeing the antenna division. Needless to say, there were several rapid and large-scale changes employees weathered during the past two years—and even longer for the period of time proposed in the change management plan. The change management plan should take that notion into account and take a people-first, empathetic approach throughout.

Within a relatively short timeframe, EMT experienced five of the six most common events that led to organizational change listed by Perucci (2023). However, organizational change should not occur in rapid succession, especially significant change, which could take months to implement and for employees to adjust (Perucci, 2023). Perhaps EMT's employees are exhausted with the rapid pace of changes since the 2021 acquisition. Therefore, the solutions should be implemented with that in mind through a slow, deliberate process and with a high level of empathy and understanding. To that end, a well-crafted change management plan would be immensely helpful.

## Using a Multi-Frame Perspective

Clearly, strategic, structural, cultural, and HCM change is needed at EMT. A compelling case was made in Section 4 for change, including the quantifiable gap in how leaders and employees perceive the organization according to the respondents' comments throughout the survey, which evidenced a remnant of likely holdouts who do not fully believe in the new MVV or have confidence in new post-M&A leadership. There were glimmers of hope that also informed the need for change—employees believe a great deal in their frontline managers, are highly confident that the organization offers sufficient growth and development opportunities, and they display substantial pride in EMT's products. Interestingly, the fact that employees and leaders alike recognize their hands are often tied when it comes to product-specific innovation harkens to the nature of EMT's work, requiring them to closely adhere to strict blueprints and customer specifications, as is common in government contracting. Therefore, the multi-part solutions package involves reinvigorating the integration of EMT's new MVV and creating two task forces to implement the people and operational aspects

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of the good jobs strategy, thus enabling greater cross-functional collaboration and communication throughout the organization.

In sum, the status quo created by the former ownership—one that was anti-change and anti-innovation—must give way to a new status quo, one that is characterized by cross-functional collaboration and communication, fuller and deeper ownership of the new MVV, and increasing trust in the new post-M&A leadership to enable the organization to welcome change and engage in innovation and remain competitive in a rapidly changing and evolving industry. The solutions must be implemented and managed thoughtfully because of lackluster change initiatives in the past and the rapid pace of change since the M&A. To that end, a well-designed and systematic change management plan CMP is needed.

### What is Change Management?

Simply knowing or stating that change is needed is one thing, but actually designing changes so they are successful is another. Unfortunately, according to McKinsey's research, about 70% of change initiatives fail (London, 2019, para. 1). What is needed is not simply change but what one firm calls *sticky change* or change that actually works and lasts (Sticky Change, n.d.). To ensure change sticks, organizations must ensure they use a model and implementation process to align systems and people with the change (Clarke, 2017).

### Using a Multi-Frame Perspective

Several well-established change management models are commonplace, like the simple unfreeze-change-refreeze Lewin model, the McKinsey 7-S model that breaks change into seven interrelated organizational components, and many others (Hicks, 2022). Table 14 contains a list of the models most commonly used by change management practitioners.



Model	Description
Lewin's Model	First formulated by Kurt Lewin, this model involves three steps: <i>Unfreeze; change; and refreeze</i> . The first step involves preparing for the change through initial communication and stakeholder recruitment/engagement. The second step involves implementing the change, consistently communicating, and providing support. Finally, the third step involves reinforcing change and using KPIs to measure the relative success or failure of the change.
McKinsey 7-S Model	This model breaks change into seven components: strategy, structure, systems and processes, shared values, style, staff, and <u>s</u> kills.
Kotter's Model	Kotter's model involves a people-centered approach that includes eight steps: Creating a sense of urgency, building a diverse change team, defining the vision for the change, communicating the change process to engender commitment, identifying and removing roadblocks, creating short-term goals, keeping momentum, and maintaining the changes.
ADKAR	The model involves creating <u>a</u> wareness and <u>d</u> esire, providing the necessary <u>k</u> nowledge and <u>a</u> bilities to implement the change, and <u>r</u> einforcing the change long-term.
Nudge Theory	The nudge theory is less of a process and more of a concept or mindset that informs how change occurs. Rather than a top-down directive approach, the nudge theory of change involves suggestions and compelling descriptions of how the change can benefit employees and the company. It also involves being open to feedback from those on the change team to pivot when and where needed.
Bridges Transition Model	This model emphasizes people's emotional responses to change, categorized into three stages. The first stage involves recognizing that people may initially fear or resist change but still encouraging them to let go for a better outcome. The next stage of change is the <i>neutral zone</i> , when people are stuck between the old and new status quo. The last phase is the new beginning when people begin to accept and feel comfortable with the change(s).
Kübler-Ross Framework	This framework encourages change practitioners to treat the change process like the five stages of grief to help employees accept the change.

**Table 14.** Common Change Management Frameworks (Hicks, 2022).

**Planned Change Intervention Model**

Selecting one or more change models is as complex as it is crucial. As in Section 4, a multi-frame perspective informs the evaluation and selection of the best-fitting change management model. According to Abbie (n.d.), there are three fundamental conceptual factors of change, each requiring its own framework: the content of the

change, the people engaged in or impacted by change, and the process of change. Figure 24 showcases the multiple perspectives that will be used to form a model that addresses each change component.

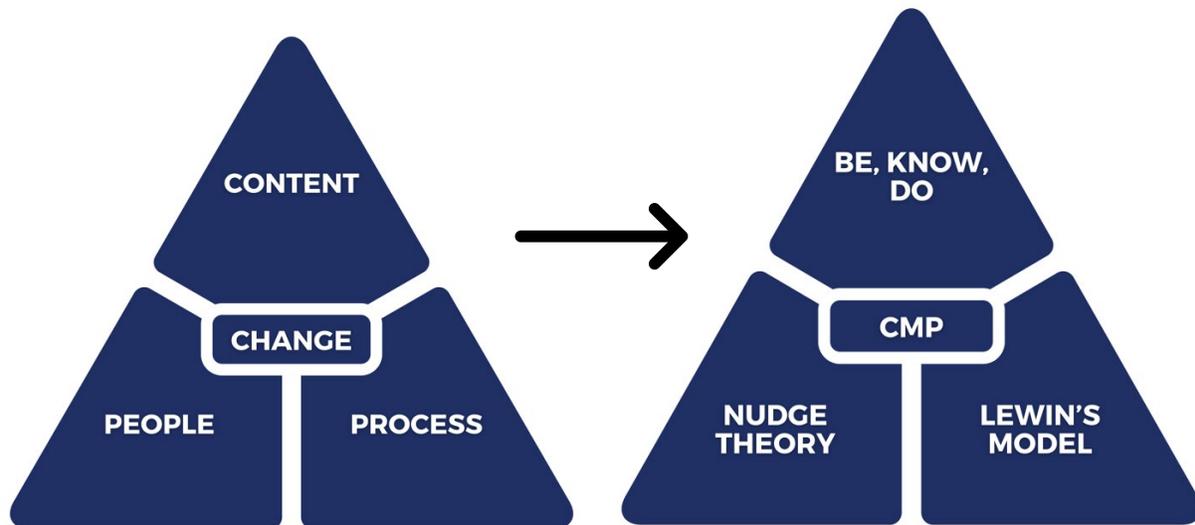


Figure 24. Change Components (Abbie, n.d.) and Framework.

First, what is the content of the CMP? Abbie (n.d.) shares that part is simple—the content of the change is the be, know, do solutions, so the plan's content will involve breaking down each solution into actionable steps for EMT to take. The next change component is the people involved and how to manage them. The CMP will also involve descriptions of the change management team and reasons for their selection, as well as a framework for managing the people-related aspects of the change, such as how to deal with potential resistance. To ensure a people-centered approach to implementing the solutions required by the VBM, the CMP must consider past resistance to change, lack of trust in senior leadership, and potential organizational burnout caused by recent changes. To that end, the nudge theory will inform the plan's relational or social capital ethos, requiring leaders to be suggestive and empathetic rather than directive and harsh (Hicks, 2022). This theory also requires leaders to encourage positive behaviors instead of merely correcting negative ones and necessitates listening to employee feedback throughout the change process (Hicks, 2022). Finally, several action and implementation models could have been selected. However, due to its simple and easy-to-understand nature, the Lewin model of change (Raza, 2019) will be how the changes are implemented. The model is fitting because it overcomes the multi-faceted character of the solutions package through its simplicity and lack of many steps. Lewin's model is also flexible, allowing leaders to adjust the plan based on the situation. This flexibility makes Lewin's model a valuable tool for leaders in various settings (MTD Training, 2023).

Of course, while there are certainly theoretical frameworks that inform a change management plan, it is a plan, after all. Hence, the CMP should be action-oriented and enable leaders to use it to implement change. In other words, a change management

plan should be more than simply grounded in research; it should also clearly show how to use a change management framework in practice (Hicks, 2022). To that end, Table 15 contains examples of how the two theoretical aspects of the framework will be mobilized in concrete ways throughout the change management plan. Likewise, Table 16 contains a side-by-side comparison of the advantages and disadvantages of the CMP and a brief explanation for selecting each of the three aspects of the CMP.

Framework Component	Mobilization Examples
Be, Know, Do	The CMP will build upon itself, intentionally moving from the <i>be</i> solutions to <i>know</i> , then to <i>do</i> , as adopted by the United States Army (1999).
Nudge Theory	Suppose a member of the continuous improvement task force should approach leadership about what to suggest for a process improvement rather than tell the employee what to do. In that case, the leader should ask what the employee thinks, or what others have been saying, or something similar to be suggestive as opposed to directive.

Table 15. Mobilization Examples.

Framework Component	Advantages	Disadvantages	Selection Rationale
Be, Know, Do	Wholistic approach; aligns with the VBM; United States Army uses the model	Can be perceived as over-complicated	The proven effectiveness of be, know, do far outweighs its multi-faceted nature.
Nudge Theory	People first, as required by the VBM; utilizes empathy and understanding to accomplish behavior change	Can potentially be perceived as weak; does not adapt to situations that would require more directive leadership, such as a crisis	Due to the scale and rapid pace of recent changes at EMT, empathy and understanding are paramount.
Lewin's Model	Simple and easy to understand; flexible; best for long-term change (MTD Training, 2023).	Can potentially be perceived as ambiguous and non-concrete compared to other multi-step models	To allow for adaptation to changes as they come, a flexible model is preferable.

Table 16. CMP Advantages and Disadvantages.

## Change Management Plan

With a change management framework now entirely in view, next is to provide a roadmap for its implementation, which includes the communication plan, evaluation measures, reinforcement strategies, scenario planning, and an outlined action plan

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for the implementation timeline. The structure of this section, though, will follow Lewin's unfreeze, change, and refreeze steps (Raza, 2019).

### **Unfreeze Phase**

The initial step of the change management plan involves preparing for the change through initial communication and stakeholder recruitment/engagement. EMT's leaders must first form the change management team responsible for overseeing the change process. As previously noted, the change is incremental in nature and is to be meted out by taking constant and meticulous attention to ensure the multiple, relatively small changes are implemented carefully; the change is also broad in scope, involving every employee and team in the organization in some way, shape, and form. But the change is also urgent, a fact now accepted by the leadership team after the recommendation presentation. Therefore, the recommended five-member change management team shown in Table 17 should be created quickly because there is very little time to be wasted to ensure EMT can rapidly start participating in and benefiting from Industry 4.0. With that in mind, select members of the leadership group—the same group that took the survey—should serve as the change management team.

The company's president, who serves as the principal operational leader of EMT, will act as the chartering member of the group. Their role will be to create a shared vision, urgency, and accountability among the members. Meanwhile, the VP of the Antennas Division will play a crucial role in aligning the structure by providing innovative ideas as the organization's engineering subject matter expert. The VP will also lead the frontline managers in their department as they implement any future task force recommendations. Likewise, the production manager for the contract manufacturing division will take part in the task forces as the manufacturing subject matter expert and will guide the frontline managers in their department as they implement any recommendations from the task forces. Both divisional leaders will monitor their own production KPIs. As the representatives of the administrative employees, the HR director and controller will both participate in the task forces, provide their unique people and financial expertise to the group, and monitor their own respective KPIs. To ensure the group does not include too many people, representatives of each division and general business discipline in the firm will comprise the change management team and be well-prepared to shepherd the change management plan throughout its execution.

Team Member	Alignment Area	Discipline	Focus
President	Strategy, Culture	Executive Leadership	Creating a shared vision, sense of urgency, and accountability, and monitoring all KPIs
VP of EM-AD	Structure	Executive Leadership, Engineering, Operations	Informing product application and process innovations, guiding frontline managers in the department as they implement task force recommendations, monitoring production KPIs
HR Director (AKA the researcher)	HCM, Culture	HCM, Operations	Crafting policies, participating in both task forces as the HCM leader, providing insights from the study, monitoring HCM KPIs
Controller	Strategy	Accounting and Finance, Operations	Participates in both task forces as the financial leader, monitors financial KPIs
Production Manager for EM-CM	Structure	Manufacturing, Operations	Participates in both task forces as the manufacturing SME, guiding frontline managers in the department as they implement task force recommendations and monitor production KPIs

**Table 17.** Change Management Team.

The group is charged with developing a compelling initial communication plan to create a sense of urgency for the change, cast a vision for the future, and present the opportunity for employees to join the change task forces. At this stage, it is extremely important to communicate with multiple methods, through several people and platforms, to build excitement progressively until the full-blown change initiative is announced to the entire company. A sample communication plan is provided in Appendix T.

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After the task forces are announced, the groups will meet to establish a group charter, which includes the purpose of the group, frequency of meetings, and group collaboration norms. Harvard Business School Online Staff (2020) warns, “When a professional who has never managed a change initiative is suddenly thrust into the challenge, the results can be catastrophic if they don’t take the time to shore up their skills” (para. 5). Therefore, as discussed in Section 4, the first few meetings must involve creative problem-solving training to set the task forces up for success. Stakeholders can refer to Appendix S for a step-by-step checklist to know when the phase is complete.

### **Change Phase**

The second step of the change management plan involves implementing the solutions, consistently communicating the value of the changes, and providing support to key stakeholders. To ensure the change is successful, it must be implemented deliberately, intentionally, and slowly to avoid burnout (Perucci, 2023). To that end, a sample implementation guide was provided to the partner organization during the recommendation presentation, which involved an extended year-long timeline. The partner organization liked the intentionality of the plan and asked that the solution be implemented throughout four quarters as suggested. Their assessment of the provided plan is in line with Adobe’s evaluation of how quarterly, rather than annual, planning is the most effective way to organize strategic planning since it allows for regular updates to the plan as needed and creates a sense of urgency since deadlines come more often than with annual plans (Adobe Communications Team, 2022).

The implementation timeline provided in Appendix S is to be followed each quarter to execute the necessary changes, ensure consistent communication and accountability throughout each phase, and support stakeholders in various implementation elements. A *crawl, walk, run, and fly approach* has been adopted to ensure the change gains momentum during implementation. This approach starts with small, preliminary steps and gradually expands as momentum builds (SlideModel, 2023). Interested stakeholders can refer to Appendix U for a detailed outline of how each step of the CMP is directly tied to its respective BKD solution and Lewin phase.

### **Refreeze Phase**

After implementing changes, the third step is refreezing, which involves reinforcing the change and using KPIs to measure the success or failure of the change. The focus is on evaluating, adjusting, and reinforcing the changes if needed. This step also involves reinforcing the change, evaluating its effectiveness, and using KPIs to measure the success or failure of the change. Step-by-step implementation recommendations can be found in Appendix S.

During refreezing, the focus is on evaluating and adjusting the changes as needed. Positive and negative reinforcements are made to ensure that the changes become a part of the daily routine and are sustainable in the long term. The evaluation process helps to identify any issues or areas of improvement, and the use of KPIs provides measurable data to track the progress of the changes. Overall, refreezing is a crucial

step in the change management process that helps to ensure that changes are successful and sustainable.

**Evaluation**

Finally, it is crucial to the success of the change management plan that EMT measures and evaluates change (Miller, 2020). To that end, a balanced scorecard is provided in Table 18 as a valuable resource since the tool directly ties the firm’s strategies to measurements and specific initiatives (Kaplan & Norton, 1993). Calculations for each of these and other measures are provided in Appendix F.

	Objectives	Measures	Targets	Initiatives
<b>Financial</b>	Provide consistent and predictable ROI	ROI; profitability per employee	+22% annual growth	Continuous Improvement Task Force
<b>Employees</b>	Create a positive and productive work environment	eNPS; retention rate	>0 avg. eNPS; Reduce turnover by half in 2024	MVV presentations, Compensation Task Force, MVV integration in the employee lifecycle
<b>Internal Processes</b>	Improve systems and processes	Throughput	+15% increase in throughput quarter-over-quarter	Continuous Improvement Task Force, employee-directed training; cross-training
<b>Learning and Growth</b>	Upskill to maximize success in Industry 4.0	Total training hours; total training completed per employee	Double attendance at voluntary training sessions in 2024; +15% increase in trainings completed per employee	Leadership training; employee-directed training, cross-training, regular training updates

**Table 18.** Balanced Scorecard.

In addition, the organization should conduct the IMA’s Individual Readiness Assessment before the change initiatives begin in the first quarter of 2024 and then re-take the assessment in the first quarter of 2025 to determine if the top-line goal of this study was accomplished, namely, to make EMT better prepared to change at the individual, team, and organizational level (Alsher, 2018).

**Reinforcement Strategies**

Reinforcement strategies must address positive and negative reinforcements to confront behaviors that promote or hinder change initiatives, as stated by Creasey (n.d.). Several positive and negative reinforcement approaches are outlined in Appendix V. Notably, however, since post-M&A leaders are responsible for ensuring an us versus them mentality does not foment, each reinforcement strategy should assume that the various groups within the organization—long- and short-tenured

employees, generations, pre-and-post-M&A employees—will react differently to the reinforcement strategies. For example, if an employee who has been with the company for 25 years begins to balk at the new MVV, a leader could reinforce the MVV by bringing up negative points in the organization's history, like the decade-long period of the trust, to generate buy-in for the exciting new direction. That same reinforcement strategy would not work with an employee who has only been with the company for a year.

## Scenario Planning

Change can be unpredictable because it involves people, and people can be unpredictable. Therefore, it is crucial for EMT to be prepared for specific scenarios that could affect the success of the change management plan. Typical plans should address financial, operational, and external scenarios (Luther, 2022), as well as cultural ones. The scenario planning guide in Figure 25 contains each of those scenarios.

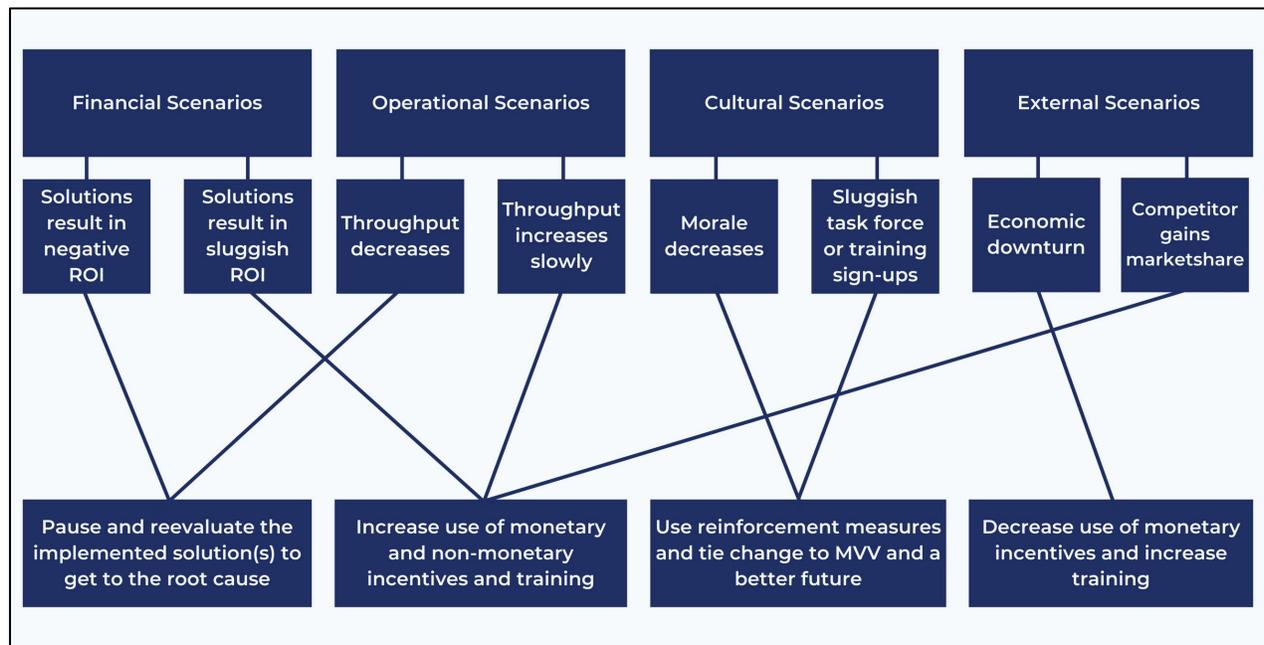


Figure 25. Scenario Planning Guide.

## Action Plan

As previously mentioned, it is essential to approach change with careful consideration and a strategic plan. In order to facilitate this, a clear and concise action plan is provided in Appendix S, which outlines the specific steps of the process, including who is responsible for each task, what needs to be done, and when it needs to be completed. The action plan is designed to be flexible and can be adjusted to ensure the change is implemented successfully. A visualization of how the strategies support and interact with one another, a helpful strategy map, is provided in Figure 26.

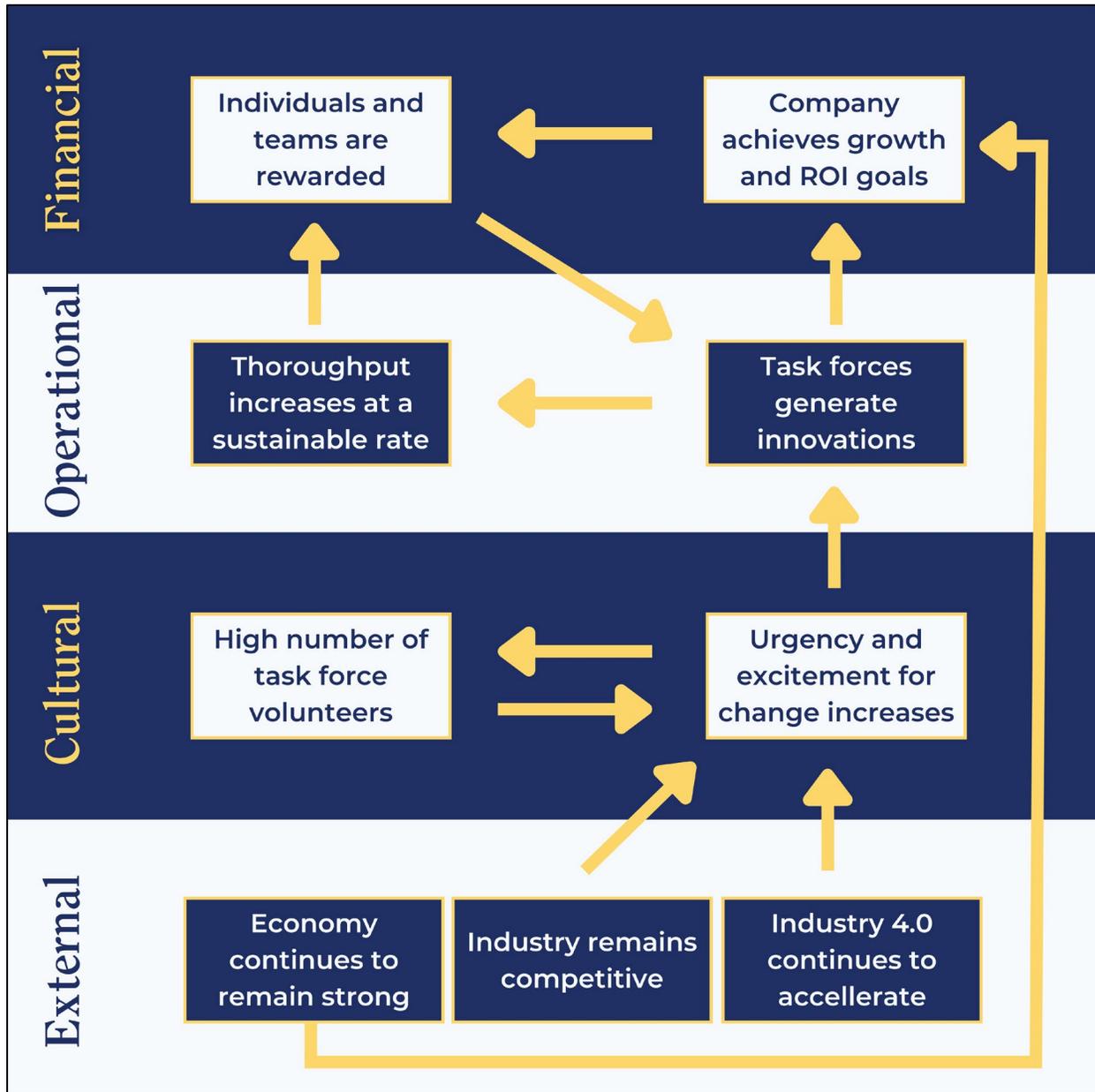


Figure 26. Strategy Map.

## Conclusion

This study has been an exciting and urgent pursuit of the motivators and enablers of change and innovation from the beginning to the end. The study started by identifying and investigating the problem at EMT. In Section 1, the researcher provided an overview of the organization's history, current situation, and the problem's significance for EMT and the industry as a whole. The problem was further investigated, as detailed in the Section 2 at-a-glance analyses: environmental, industry, organizational, and other related factors contributing to it. In particular, the significance of Industry 4.0 and the industry's potential for innovation informed the understanding of EMT's problem—the organization's inability to adapt to change and

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engage in innovation. Section 3 includes a comprehensive overview of a wide range of scholarly and practitioner literature related to M&A integration, motivation theories, leadership styles, employee engagement, cross-functional collaboration, and total rewards programs. These helped with the determination of a perceived gap in the perception of EMT's operations as related to the lackluster post-M&A integration of strategy, structure, culture, and human capital management, as well as factors that might cause inhibitions toward change and innovation. Section 4 details the research design and analysis of the targeted survey given to the organization's leaders and employees, as well as research- and evidence-based solutions. Based on the solutions generated from the literature and data analysis, and with the signoff of EMT's leadership, a change management plan was developed. Section 5 details how Lewin's change model (Raza, 2019) will be used to implement the approved solutions.

The results of this study and planned implementation will immediately benefit EM Technologies and set it up for long-term success. After almost a decade under previous ownership, which discouraged change and innovation to mitigate pre-acquisition risk, EMT has been provided with a comprehensive guide to move into Industry 4.0. This guide includes the theories, training, and tools required for EMT to thrive in a rapidly evolving and advancing business environment. The multi-faceted solutions will enable EMT to motivate greater adoption of its new MVV, upskill its leaders and employees for change and innovation, incentivize its employees with tailored rewards, and implement process and product innovations.

Although the immediate scope of the research was narrow, focusing on one organization at one point in time, this doctoral inquiry contributes to the high-tech manufacturing industry and other organizations as well. Firms in the manufacturing industry and other non-manufacturing firms can learn a lot from this study and apply its same targeted approach to prepare an organization for the Fourth Industrial Revolution.

The study's central message is the critical importance of embracing change to succeed in today's rapidly evolving business environment. The author hopes that readers feel optimistic about the future and understand the magnitude of the task ahead for organizations. When first researching and writing this report, generative AI was still in beta testing; however, nearly 90% of business leaders now believe it will significantly impact their organizations (Huh, 2023). However, only 25% of these leaders think they can benefit from generative AI (Huh, 2023). This study highlights that much work must be done to prepare leaders and organizations to thrive in Industry 4.0. The key to doing so is through a whole-of-business approach towards change and innovation.

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## Appendix A

### ROI Calculation for EM Technologies' Capital Investments<sup>46</sup>

2021 Revenue	\$8,340,968.49
2021 Annualized Investment	\$1,250,000.00
2021 Net Profits	\$1,088,183.36
<hr/>	
<b>2021 ROI</b>	<b>-13%</b>
2022 Revenue	\$10,000,000.00
2022 Annualized Investment	\$1,250,000.00
Approximate 2022 Profits	\$2,500,000.00
<hr/>	
<b>2022 ROI</b>	<b>100%</b>

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## Appendix B

### Anecdote About Disciplinary Action

In early 2023, a manager came into the researcher's office furious about a situation that had just occurred on the manufacturing floor. The manager had just sent a long-tenured subordinate home for the day because the employee became irate about a suggested improvement to a manufacturing process under his scope of work. The employee became insubordinate when the manager asked him to act in a professional manner and perhaps take the conversation to a private space.

Apparently, these types of outbursts on the manufacturing floor are becoming increasingly common. They are related to the efforts to innovate products and manufacturing processes.<sup>47</sup>

## Appendix C

### Lessons on Strategy, Structure, Culture, and HCM

Category	Lesson	Source(s)
Strategy & Structure	A key factor in achieving successful mergers and acquisitions is the continuous integration efforts spearheaded by company leadership.	Ashkenas et al., 1998; Berkow, 2017; Clarke et al., 2020; Doherty et al., 2016; O'Neill, 2017; Zhang et al., 2014
Strategy & Structure	A common reason for M&A failures is the absence of leadership effort in integration from the start.	Christensen et al., 2011; Garrison, 2019; Viegas-Pires, 2013
Strategy & Structure	Articulating a new, compelling vision or strategy for the organization is key to a successful M&A	East et al., 2012; Hoebarth et al., 2021; Romanski, 2017; Zhang et al., 2014
Strategy & Structure	The way strategy integration is approached varies based on the organization's context. Different approaches may focus on product, people, or structure.	Van Oorschot et al., 2022
Strategy & Structure	Do not assume anything about the integration of strategy or structures.	Garrison, 2019
Strategy & Structure	The Santander-Lloyds merger failed due to poor technology integration. This highlights the importance of integrating tech in mergers and acquisitions.	Barnes, 2018
Strategy & Structure	It is best to announce layoffs and changes to reporting relationships as early as possible to prevent causing uncertainty and anxiety among employees.	Ashkenas et al., 1998
Strategy & Structure	The success of a deal largely depends on effectively communicating a compelling merger story.	BCG, 2021
Strategy & Structure	It is important to have a shared post-acquisition mission that unifies the organizational identity to ensure smooth integration.	Graebner et al., 2017
Culture	The culture of an organization can either support or hinder its ability to respond to change, and it plays a crucial role in determining the success or failure of M&A.	Cecil, 2013; Hanlon, 2021; Luthans et al., 2015; PwC, n.d.; Schein, 1985; Schweiger & Goulet, 2005
Culture	Successful cultural management involves understanding and bridging	Ashkenas et al., 1998; Boynton, 2020; Fuhrer et

	cultural disparities, promoting transparent communication, and enhancing cultural adaptability	al., 2017; Hanlon, 2021; Luthans et al., 2015; Viegas-Pires, 2013
<b>Culture</b>	Managing post-acquisition culture should be a top priority for leadership.	Fuhrer et al., 2017; Viegas-Pires, 2013
<b>Culture</b>	Avoiding an us versus them mentality is key to the M&A's success.	Viegas-Pires, 2013
<b>Culture</b>	Leaders should strive to create a balanced merging of both parties' cultures and encourage a cooperative approach to redefining the unified culture.	Viegas-Pires, 2013
<b>Human Capital Management</b>	HR is an essential part of the M&A process, handling organizational restructuring, reporting relationship changes, and cultural management.	Willer et al., 2019
<b>Human Capital Management</b>	HR should not be overlooked or undervalued during an M&A, leading to poor synergy and lacking value addition.	Fuhrer et al., 2017
<b>Human Capital Management</b>	Employee retention, involvement, and performance in the post-acquisition stage can substantially influence the success of the integration process.	Kempton & Sarala, 2021
<b>Human Capital Management</b>	HR plays a crucial role throughout the M&A process, addressing employee concerns, organizational challenges, talent requirements, and measuring the effectiveness of the deal after it has been finalized.	Sayed, 2022
<b>Human Capital Management</b>	HR needs to create comprehensive plans for due diligence, cultural integration, communication, and training for M&A to be successful.	Rodríguez-Sánchez et al., 2019
<b>Human Capital Management</b>	M&A requires a tailored approach from HR, acting in various roles depending on the unique organizational situation.	Bagdadli et al., 2014
<b>Human Capital Management</b>	Aligning HR functions with standards provided by professional organizations, such as SHRM and HRCI, can ensure proficient handling of crucial M&A aspects.	HRCI, 2022; SHRM, n.d.
<b>Human Capital Management</b>	Benchmarking HR according to professional and industry standards can increase business impact.	van Vulpen, n.d.
<b>Human Capital Management</b>	Design compelling experiences with, not for, employees.	The Josh Bersin Company, 2022

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Human Capital Management	Leverage enterprise technology to use future-oriented data.	The Josh Bersin Company, 2022
Human Capital Management	Transform HR into a technology-powered operation center.	The Josh Bersin Company, 2022
Human Capital Management	Use technology-powered HR to scale processes strategically and efficiently.	The Josh Bersin Company, 2022
Human Capital Management	Revisit organizational goals and adjust success measures regularly (at least quarterly).	The Josh Bersin Company, 2022
Human Capital Management	Streamline systems and experiences across functional areas.	The Josh Bersin Company, 2022

# Appendix D

## Competencies, Skills, and Behaviors Matrix

Category	Factor	References
<b>Competencies</b>	<ul style="list-style-type: none"> <li>• Openness to new experiences</li> <li>• Readiness for ambiguity</li> <li>• Emotional intelligence</li> <li>• Social competencies</li> <li>• Knowledge-making and sharing</li> <li>• Data analysis</li> <li>• For HR leaders:               <ul style="list-style-type: none"> <li>◦ Business acumen, consultative leadership, critical evaluation</li> </ul> </li> </ul>	Dragoni et al., 2009; Kaplan, 2019; Northouse, 2019; University of Colorado Boulder, n.d.; Willer et al., 2019
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Creativity</li> <li>• Problem-solving</li> <li>• Critical thinking</li> <li>• Communication</li> </ul>	Carmeli et al., 2013; Dwyer et al., 2014; Graham-Leviss, 2016; Jonassen, 2010; Lewis 2019; Plucker & Dow, 2010; Zhou & Hoever, 2014
<b>Behaviors</b>	<ul style="list-style-type: none"> <li>• Teamwork and collaboration</li> <li>• Knowledge sharing</li> <li>• Participative and proactive leadership</li> <li>• Resilience</li> <li>• Organizational citizenship behaviors (altruism, conscientiousness, courtesy)</li> <li>• Ideal team player (humility, hunger, technical and people smarts)</li> </ul>	Lencioni, 2016; Lewis, 2019; Luthans et al., 2015; Northouse, 2019; Odoardi et al., 2015; Sutcliffe & Vogus, 2003

## Appendix E

### Incentives Examples

Incentive	Individual Examples	Group Examples
Commissions	<ul style="list-style-type: none"> <li>Employee receives 10% of the savings from a process innovation he or she designs</li> <li>Employee receives 10% of the profits from the sales of a new product he or she designs</li> </ul>	<ul style="list-style-type: none"> <li>Team receives 10% of the savings from a process innovation they design</li> <li>Team receives 10% of the profits from the sales of a new product they design</li> </ul>
Bonuses	<ul style="list-style-type: none"> <li>Employee receives a one-time bonus of \$1,000 for exceptional work during a quarter.</li> <li>Employee receives 10% of their quarterly wages if he or she meets a sales goal for the quarter.</li> </ul>	<ul style="list-style-type: none"> <li>A team or department receives a bonus pool of \$10,000 to distribute equally for exceptional work during a given quarter.</li> <li>The entire company receives a quarterly bonus equal to a certain percentage of his or her pay if the company meets a profitability goal.</li> </ul>
Stock/equity options	<ul style="list-style-type: none"> <li>Employee receives a percentage of ownership in the company</li> </ul>	<ul style="list-style-type: none"> <li>All employees receive a percentage of ownership in the company</li> </ul>
Recognition	<ul style="list-style-type: none"> <li>Employee receives a formal award for an outstanding quarter</li> <li>Employee of the Month and Length of Service awards</li> </ul>	<ul style="list-style-type: none"> <li>Team receives the Best Team of the Quarter award</li> <li>Team gets an article in the local <i>Business Review</i></li> </ul>
Rewards	<ul style="list-style-type: none"> <li>Employee receives a \$50 gift card to their favorite restaurant for a job well done on his or her most recent project</li> <li>Employee receives a reserved parking spot for the highest customer satisfaction survey score</li> </ul>	<ul style="list-style-type: none"> <li>All employees receive a company trip to a local professional sports game for an exceptional quarter</li> <li>A team or department receives their choice of a weekend getaway for achieving their group's quarterly goal</li> </ul>

## Appendix F

### Benchmarks/KPI Matrix

Benchmark/KPI	Calculation or Formula	Source
Alternative Sourcing for Products	Total number of suppliers / Total number of products	Del Campo et al., 2022
Cost of Quality	Prevention costs + Appraisal costs + Internal failure costs + External failure costs	Gregolinska et al., 2022
Employee Engagement	Net Promoter Score from Employee Survey	World Economic Forum, 2023
Forecasting Accuracy	$(1 - (\text{Total forecast error} / \text{Total sales})) * 100\%$	Gregolinska et al., 2022
First-time Quality	$(\text{Units produced correctly the first time} / \text{Total units produced}) * 100\%$	Jenkins, 2022
Inventory Holding Cost	Total storage costs + Total insurance costs + Total losses from obsolescence	Gregolinska et al., 2022
Labor Productivity	Total output / Total labor hours	Gregolinska et al., 2022
Machine Downtime	Total time machine is unavailable / Total planned production time	Gregolinska et al., 2022
Number of Changes Successfully Implemented	Successful changes / Total changes	Abbas, 2022

Number of Employees Who Attend Training Sessions for New Changes	Number of employees attending training sessions / Total number of employees	Abbas, 2022
Number of Employees Who Successfully Adopt Change	Number of employees who adopt change / Total number of employees	Abbas, 2022
Number of Innovative Ideas per Employee	Number of innovative ideas / Total number of employees	Beetham, 2016
On-Time Delivery	(Number of orders delivered on time / Total number of orders) * 100%	Jenkins, 2022
Product and Process Redesign Efforts	New designs / Number of employees	Del Campo et al., 2022
Production Cost	Total direct labor cost + Total direct material cost + Manufacturing overhead cost	Jenkins, 2022
Production Volume	Total number of units produced	Jenkins, 2022
Revenue per Employee	Total revenue / Total number of employees	Jenkins, 2022
Resilience	Resiliency Index	BetterUp, 2023
Speed of Technology Adoption	Actual time to adopt or implement / Planned time to adopt or implement	Somapa et al., 2023; World Economic Forum, 2023
Succession Plan	Number of employees	Dewar et al., 2023
Throughput	Total units produced / Total time	Gregolinska et al., 2022
Transformation-Minded Positions	Transformation-minded positions / Total positions	World Economic Forum, 2023

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## Appendix G

### All-Employees Group Participation Invitation

Hello,

I hope this email finds you well.

As you may or may not know, Lance Rodman is pursuing his Doctorate in Business Administration at Indiana Wesleyan University. I am sending out this email on his behalf. As part of his applied doctoral project, you are invited to participate in an Employee Engagement Survey that aims to gauge the perception of leadership and employees about the strategy, structure, culture, and human capital management at EMT.

Your participation is warmly welcomed but is not required. Your participation is entirely voluntary, and you can opt out of the survey at any point if you wish to decline participation. If you decide to participate, your responses will be kept confidential and anonymous.

The survey may be taken anytime on a computer or mobile device (e.g., during working hours, at break times, or on personal time). The access link will be available for two weeks.

To ensure the integrity of the research: (a) your responses will be kept anonymous, (b) no questions ask about personally identifying information, (c) data will be reported in the aggregate, not individually, and (d) you will have the right to withdraw from the research study at any point without retaliation. If you have any questions, comments, or concerns, please do not hesitate to contact me. Otherwise, here are the key details:

1. Duration: The survey will take about 10–15 minutes to complete.
2. Compensation: There is no compensation offered for your participation.
3. All Employees Group Survey link:

<https://forms.office.com/Pages/ResponsePage.aspx?id=9t5dAzMtkiFJnDKgYH3bWUIEQhNcjZChr37m5OviwhUOFZDUzKxREY0UDMwMk9PQUM3TIIOWFY5Mi4u>

Sincerely,

[Redacted Signature]

Executive Assistant

Office: [Redacted Office]

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## Appendix H

### Leadership Group Participation Invitation

Hello,

I hope this email finds you well.

As you may or may not know, Lance Rodman is pursuing his Doctorate in Business Administration at Indiana Wesleyan University. I am sending out this email on his behalf. As part of his applied doctoral project, you are invited to participate in an Employee Engagement Survey that aims to gauge the perception of leadership and employees about the strategy, structure, culture, and human capital management at EMT.

Your participation is warmly welcomed but is not required. Your participation is entirely voluntary, and you can opt out of the survey at any point if you wish to decline participation. If you decide to participate, your responses will be kept confidential and anonymous.

The survey may be taken anytime on a computer or mobile device (e.g., during working hours, at break times, or on personal time). The access link will be available for two weeks.

To ensure the integrity of the research: (a) your responses will be kept anonymous, (b) no questions ask about personally identifying information, (c) data will be reported in the aggregate, not individually, and (d) you will have the right to withdraw from the research study at any point without retaliation. If you have any questions, comments, or concerns, please do not hesitate to contact me. Otherwise, here are the key details:

1. Duration: The survey will take about 10–15 minutes to complete.
2. Compensation: There is no compensation offered for your participation.
3. Leader Group survey link:

<https://forms.office.com/Pages/ResponsePage.aspx?id=9t5dAzMtkiFJnDKgYH3bWUIEQhNcjZChr37m5OviwhUMUZSTEtNV0xJUTRGNldaNu02WFhLNVIvNC4u>

Sincerely,

[REDACTED]

Executive Assistant

Office: [REDACTED]

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# Appendix I

## Employees Group Consent

### CONSENT FOR PARTICIPATION IN AN ELECTRONIC SURVEY - ALL EMPLOYEES GROUP

Empowering High-Tech Manufacturing in Industry 4.0: Harnessing  
Change Readiness and Innovation to Maximize Success

**Lance Rodman, Principal Investigator**

**Dr. Debbie Philpott, Research Chair**

**DeVoe School of Business, Technology, and Leadership**

Hello,

We are conducting research about change and innovation in manufacturing settings. If you agree to participate, please read the following consent statement.

I certify that I am over the age of 18 and am participating in this survey of my own free will. I recognize that some or all of the questions contained in this survey may be of a sensitive nature and may cause discomfort. I understand all survey answers will be held in strict confidence and may be used by the researchers for future publications.

I understand that the purpose of the research is to understand employee attitudes and behaviors about EMT and propose research-based solutions to leadership based on the results of this and other research.

I authorize Lance Rodman of the Indiana Wesleyan University DeVoe of Business, Technology, and Leadership, Doctor of Business Administration program to gather information regarding my responses to questions asked on this survey.

This survey will ask about your understanding and perceptions of the structure, strategy, culture, and human capital management at EMT and will take approximately 15–20 minutes to complete. If I agree to take part in this study, I understand that I will be asked to complete the survey questions listed on the following pages. I understand that my responses will be utilized for research and may become part of a published journal article or scholarly presentation.

I recognize that I will not receive monetary compensation for participating in this survey. Conversely, there are no monetary costs to me for participating.

---

I certify that my participation in this survey is wholly voluntary and recognize that I may withdraw at any time. I understand that I am free to skip any question I do not feel comfortable answering. There is no obligation for my participation, and I may withdraw at any time.

I understand that Lance Rodman will be available for consultation should I have any additional questions regarding the research being conducted. I understand that the answers given to this survey will be maintained by the researcher for a period of no less than three years after the close of the study. The researcher will store all paper copies of surveys in a locked and secured filing cabinet. Additionally, paper copies of surveys and release forms may be digitized and stored electronically on a password-protected hard drive.

I release any claim to the collected data, research results, publication of or commercial use of such information or products resulting from the collected information. If I have any questions or comments about this research project, I can contact:

- Lance Rodman: Email: [lance.rodman@myemail.indwes.edu](mailto:lance.rodman@myemail.indwes.edu); Phone: [REDACTED]
- Dr. Debbie Philpott: Email: [debbie.philpott@indwes.edu](mailto:debbie.philpott@indwes.edu); Phone: [REDACTED]

If I have concerns about the treatment of research participants, I can contact the Institutional Review Board (IRB) at Indiana Wesleyan University, 4201 South Washington Street, Marion, IN 46953 or by phone at 765-677-2090.

The survey is designed not to collect e-mail addresses or Internet protocol (IP) addresses. To further maintain confidentiality of the survey, please do not include yourname or any other information by which you can be identified in any comment boxes that may be included in the survey.

You cannot return to or edit your responses after you have submitted your responses.

BY CLICKING ON “CONTINUE,” I ACKNOWLEDGE THAT I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT, AND AM PREPARED TO CONSENT TO MY PARTICIPATION IN THIS SURVEY. You can print a copy of your response after you submit it.

- Continue
- Do NOT continue

You can print a copy of your response after you submit it.

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## Appendix J

### Leader Group Consent

#### CONSENT FOR PARTICIPATION IN AN ELECTRONIC SURVEY LEADER GROUP

Empowering High-Tech Manufacturing in Industry 4.0: Harnessing  
Change Readiness and Innovation to Maximize Success

**Lance Rodman, Principal Investigator**

**Dr. Debbie Philpott, Research Chair**

**DeVoe School of Business, Technology, and Leadership**

Hello,

We are conducting research about change and innovation in manufacturing settings. If you agree to participate, please read the following consent statement.

I certify that I am over the age of 18 and am participating in this survey of my own free will. I recognize that some or all of the questions contained in this survey may be of a sensitive nature and may cause discomfort. I understand all survey answers will be held in strict confidence and may be used by the researchers for future publications.

I understand that the purpose of the research is to understand employee attitudes and behaviors about Electro-Metrics and propose research-based solutions to leadership based on the results of this and other research.

I authorize Lance Rodman of the Indiana Wesleyan University DeVoe of Business, Technology, and Leadership, Doctor of Business Administration program to gather information regarding my responses to questions asked on this survey.

This survey will ask about your understanding and perceptions of the structure, strategy, culture, and human capital management at Electro-Metrics and will take approximately 10–15 minutes to complete. If I agree to take part in this study, I understand that I will be asked to complete the survey questions listed on the following pages. I understand that my responses will be utilized for research and may become part of a published journal article or scholarly presentation.

I recognize that I will not receive monetary compensation for participating in this survey. Conversely, there are no monetary costs to me for participating.

---

I certify that my participation in this survey is wholly voluntary and recognize that I may withdraw at any time. I understand that I am free to skip any question I do not feel comfortable answering. There is no obligation for my participation, and I may withdraw at any time.

I understand that Lance Rodman will be available for consultation should I have any additional questions regarding the research being conducted. I understand that the answers given to this survey will be maintained by the researcher for a period of no less than three years after the close of the study. The researcher will store all paper copies of surveys in a locked and secured filing cabinet. Additionally, paper copies of surveys and release forms may be digitized and stored electronically on a password-protected hard drive.

I release any claim to the collected data, research results, publication of or commercial use of such information or products resulting from the collected information. If I have any questions or comments about this research project, I can contact:

- Lance Rodman: Email: [lance.rodman@myemail.indwes.edu](mailto:lance.rodman@myemail.indwes.edu); Phone: [REDACTED]
- Dr. Debbie Philpott: Email: [debbie.philpott@indwes.edu](mailto:debbie.philpott@indwes.edu); Phone: [REDACTED]

If I have concerns about the treatment of research participants, I can contact the Institutional Review Board (IRB) at Indiana Wesleyan University, 4201 South Washington Street, Marion, IN 46953 or by phone at 765-677-2090.

The survey is designed not to collect e-mail addresses or Internet protocol (IP) addresses. To further maintain confidentiality of the survey, please do not include your name or any other information by which you can be identified in any comment boxes that may be included in the survey.

You cannot return to or edit your responses after you have submitted your responses.

BY CLICKING ON “CONTINUE,” I ACKNOWLEDGE THAT I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT, AND AM PREPARED TO CONSENT TO MY PARTICIPATION IN THIS SURVEY.

- Continue
- Do NOT continue

You can print a copy of your response after you submit it.

---

## Appendix K

### Employee Engagement Survey Questions

1. People are able to act on their own authority and innovate on the job.
2. There are opportunities for people to grow and develop in the company.
3. People are able to easily work with other teams or colleagues without barriers.
4. People from diverse backgrounds and opinions are able to collaborate.
5. People believe in and trust their senior leaders.
6. People feel they're compensated fairly.
7. People feel the company's benefits meet their needs.
8. People believe in what they (and/or the organization) provide to their customers.
9. People feel they are adequately recognized and appreciated.
10. People have the right tools (computers, systems, etc.) to do their job.
11. People feel that there are enough people on their team to support their workload.
12. People feel like they can achieve a work-life balance as an employee of the company.
13. People buy into where the company is going.
14. Managers support their teams to be successful.
15. People feel they have the training they need to do their job.

Respondents also had the opportunity to provide comments after each question. The Employee Group received the following questions at the end of their survey and were provided with a graphic that included the company's mission, vision, and values.

1. Within an ideal workplace setting that seeks to achieve the above mission, vision, and values, identify items for the category underlined below. On behalf of the average employee at EMT, list as many items in the space as applies.

Please respond openly and honestly without limitations or restrictions of time, resources, financial cost, etc. Your responses are to include what needs to be eliminated or stopped (policies, procedures, practices, etc.) at EMT to answer the following driving research question: *How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?*

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List policies, procedures, practices, etc. that should be stopped at EMT.

2. Within an ideal workplace setting that seeks to achieve the above mission, vision, and values, identify items for the category underlined below. On behalf of the average employee at EMT, list as many items in the space as applies.

Please respond openly and honestly without limitation or restrictions of time, resources, financial cost, etc. Your responses are to include what needs to be started (policies, procedures, practices, etc.) at EMT to answer the following driving research question: *How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?*

List policies, procedures, practices, etc., that should be started at EMT.

3. Within an ideal workplace setting that seeks to achieve the above mission, vision, and values, identify items for the category underlined below. On behalf of the average employee at EMT, list as many items in the space as applies.

Please respond openly and honestly without limitation or restrictions of time, resources, financial cost, etc. Your responses are to include what needs to be kept (policies, procedures, practices, etc.) at EMT to answer the following driving research question: *How can EMT's leadership motivate individuals and teams to embrace change, product and process innovation, and new ways of working to fulfill the recently acquired high-tech firm's newfound mission, vision, and values?*

List policies, procedures, practices, etc. that should be started at EMT.

# Appendix L

## IRB Documents



**Institutional Review Board**  
4201 South Washington Street  
Marion, IN 46953

**Tel: 765-677-1402**

### **NOTIFICATION OF APPROVAL TO CONDUCT RESEARCH**

**NAME OF INVESTIGATOR:** Lance Rodman

**TITLE OF INVESTIGATION:** Empowering High-Tech Manufacturing in Industry 4.0:  
Harnessing Change Readiness & Innovation to Maximize Success

**IRB ID NUMBER:** 1903.23

The Institutional Review Board of Indiana Wesleyan University reviewed your proposal and has reached the following decision.

The proposal has been:

**APPROVED**

- This approval is valid for one year from the date of this notice. If there are any changes in the project during the year or if the project extends beyond the one-year period, a new proposal must be submitted to the IRB for review.
- All study documents (including completed questionnaires and signed consent documents) must be retained for a minimum of three years from the close of the study. Documents of the student projects must be retained in the students' respective departments.

**APPROVED PENDING SUBMISSION OF REVISIONS**  
(See below)

**ALL REVISIONS MADE MUST BE HIGHLIGHTED UPON RESUBMISSION**

**NOT APPROVED** (See below)

All research executed at IWU must conform to all applicable state and federal laws and regulations and to all applicable IWU policies.

Signature: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'JRV'.

Date: 8/31/23

Jim Vermilya, PhD  
Chair, Institutional Review Board

# Appendix M

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### NEW WORK DETAILS

Title	Empowering High-Tech Manufacturing in Industry 4.0: Harnessing Change Readiness and Innovation to Maximize Success	Institution Name	Indiana Wesleyan University
Instructor Name	Dr. Debbie Philpott	Expected Presentation Date	2023-09-29

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# Appendix N

## Quantitative Survey Results

### Survey Results

<b>1. People are able to act on their own authority and innovate on the job.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	1	3	0	0	0
<i>Employee Group - #</i>	5	5	0	0	0
<i>Leader Group - %</i>	25%	75%	0%	0%	0%
<i>Employee Group - %</i>	50%	50%	0%	0%	0%
<b>2. There are opportunities for people to grow and develop in the company.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	4	0	0	0	0
<i>Employee Group - #</i>	10	0	0	0	0
<i>Leader Group - %</i>	100%	0%	0%	0%	0%
<i>Employee Group - %</i>	100%	0%	0%	0%	0%
<b>3. People are able to easily work with other teams or colleagues without barriers.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	3	1	0	0	0
<i>Employee Group - #</i>	6	4	0	0	0
<i>Leader Group - %</i>	75%	25%	0%	0%	0%
<i>Employee Group - %</i>	60%	40%	0%	0%	0%
<b>4. People from diverse backgrounds and opinions are able to collaborate.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	3	1	0	0	0
<i>Employee Group - #</i>	9	1	0	0	0
<i>Leader Group - %</i>	75%	25%	0%	0%	0%
<i>Employee Group - %</i>	90%	10%	0%	0%	0%
<b>5. People believe in and trust their senior leaders.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	2	2	0	0	0
<i>Employee Group - #</i>	4	4	2	0	0
<i>Leader Group - %</i>	50%	50%	0%	0%	0%

<i>Employee Group - %</i>	40%	40%	20%	0%	0%
<b>6. People feel they're compensated fairly.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	2	1	1	0	0
<i>Employee Group - #</i>	3	5	2	0	0
<i>Leader Group - %</i>	50%	25%	25%	0%	0%
<i>Employee Group - %</i>	30%	50%	20%	0%	0%
<b>7. People feel the company's benefits meet their needs.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	2	2	0	0	0
<i>Employee Group - #</i>	6	3	1	0	0
<i>Leader Group - %</i>	50%	50%	0%	0%	0%
<i>Employee Group - %</i>	60%	30%	10%	0%	0%
<b>8. People believe in what they (and/or the organization) provide to their customers.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	4	0	0	0	0
<i>Employee Group - #</i>	10	0	0	0	0
<i>Leader Group - %</i>	100%	0%	0%	0%	0%
<i>Employee Group - %</i>	100%	0%	0%	0%	0%
<b>9. People feel they are adequately recognized and appreciated.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	4	0	0	0	0
<i>Employee Group - #</i>	7	3	0	0	0
<i>Leader Group - %</i>	100%	0%	0%	0%	0%
<i>Employee Group - %</i>	70%	30%	0%	0%	0%
<b>10. People have the right tools (computers, systems, etc.) to do their job.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	3	1	0	0	0
<i>Employee Group - #</i>	8	1	1	0	0
<i>Leader Group - %</i>	75%	25%	0%	0%	0%
<i>Employee Group - %</i>	80%	10%	10%	0%	0%
<b>11. People feel that there are enough people on their team to support their workload.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	2	2	0	0	0

<i>Employee Group - #</i>	6	3	1	0	0
<i>Leader Group - %</i>	50%	50%	0%	0%	0%
<i>Employee Group - %</i>	60%	30%	10%	0%	0%
<b>12. People feel like they can achieve a work-life balance as an employee of the company.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	4	0	0	0	0
<i>Employee Group - #</i>	9	1	0	0	0
<i>Leader Group - %</i>	100%	0%	0%	0%	0%
<i>Employee Group - %</i>	90%	10%	0%	0%	0%
<b>13. People buy into where the company is going.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	3	1	0	0	0
<i>Employee Group - #</i>	7	3	0	0	0
<i>Leader Group - %</i>	75%	25%	0%	0%	0%
<i>Employee Group - %</i>	70%	30%	0%	0%	0%
<b>14. Managers support their teams to be successful.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	3	1	0	0	0
<i>Employee Group - #</i>	9	1	0	0	0
<i>Leader Group - %</i>	75%	25%	0%	0%	0%
<i>Employee Group - %</i>	90%	10%	0%	0%	0%
<b>15. People feel they have the training they need to do their job.</b>	<b>Agree</b>	<b>Somewhat Agree</b>	<b>Neutral</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>
<i>Leader Group - #</i>	2	1	1	0	0
<i>Employee Group - #</i>	7	2	1	0	0
<i>Leader Group - %</i>	50%	25%	25%	0%	0%
<i>Employee Group - %</i>	70%	20%	10%	0%	0%

#### Most Agree Alignment Between Leader Group and Employee Group:

- Question 2: "There are opportunities for people to grow and develop in the company" (Leader: 100% Agree/Employee: 100% Agree)
- Question 8: "People believe in what they (and/or the organization) provide to their customers" (Leader: 100% Agree/Employee: 100% Agree)
- Question 10: "People have the right tools (computers, systems, etc.) to do their job" (Leader: 75% Agree/Employee: 80% Agree, GAP: -5 percentage points)
- Question 13: "People buy into where the company is going" (Leader: 75% Agree/Employee: 70% Agree, GAP: 5 percentage points)

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### Most Alignment Within Leader Group:

- Question 2: "There are opportunities for people to grow and develop in the company" (100% Agree)
- Question 8: "People believe in what they (and/or the organization) provide to their customers" (100% Agree)
- Question 9: "People feel they are adequately recognized and appreciated" (100% Agree)
- Question 12: "People feel like they can achieve a work-life balance as an employee of the company" (100% Agree)
- Question 1: "People are able to act on their own authority and innovate on the job" (25% Agree, 75% Somewhat Agree)
- Question 3: "People are able to easily work with other teams or colleagues without barriers" (75% Agree, 25% Somewhat Agree)
- Question 4: "People from diverse backgrounds and opinions are able to collaborate" (75% Agree, 25% Somewhat Agree)
- Question 10: "People have the right tools (computers, systems, etc.) to do their job" (75% Agree, 25% Somewhat Agree)
- Question 14: "Managers support their teams to be successful" (75% Agree, 25% Somewhat Agree)

### Most Alignment Within Employee Group:

- Question 2: "There are opportunities for people to grow and develop in the company" (100% Agree)
- Question 8: "People believe in what they (and/or the organization) provide to their customers" (100% Agree)
- Question 4: "People from diverse backgrounds and opinions are able to collaborate" (90% Agree, 10% Somewhat Agree)
- Question 14: "Managers support their teams to be successful" (90% Agree, 10% Somewhat Agree)
- Question 12: "People feel like they can achieve a work-life balance as an employee of the company" (90% Agree, 10% Somewhat Agree)
- Question 13: "People buy into where the company is going" (70% Agree, 30% Somewhat Agree)
- Question 15: "People feel they have the training they need to do their job" (70% Agree, 20% Somewhat Agree, 10% Neutral)

### Greatest Split Between Leader Group and Employee Group:

- Question 9: "People feel they are adequately recognized and appreciated" (Leader: 100% Agree/Employee: 70% Agree, GAP: 30 percentage points)
- Question 6: "People feel they are compensated fairly" (Leader: 50% Agree/Employee: 30% Agree, GAP: 20 percentage points)
- Question 7: "People feel the company's benefits meet their needs" (Leader: 50% Agree/Employee: 60% Agree, GAP: -10 percentage points)
- Question 11: "People feel they have enough people on their team to support their workload" (Leader: 50% Agree/Employee: 60% Agree, GAP: -10 percentage points)

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### **Greatest Split Within Leader Group:**

- Question 6: "People feel they're compensated fairly" (50% Agree, 25% Somewhat Agree, 25% Neutral)
- Question 7: "People feel the company's benefits meet their needs" (50% Agree, 50% Neutral)
- Question 11: "People feel that there are enough people on their team to support their workload" (50% Agree, 50% Neutral)
- Question 15: "People feel they have the training they need to do their job" (50% Agree, 25% Somewhat Agree, 25% Neutral)

### **Greatest Split Within Employee Group:**

- Question 6: "People feel they are compensated fairly" (30% Agree, 50% Somewhat Agree, 20% Neutral)
- Question 11: "People feel that there are enough people on their team to support their workload" (60% Agree, 30% Somewhat Agree, 10% Neutral)
- Question 13: "People buy into where the company is going" (70% Agree, 30% Somewhat Agree)

### **Most Agree Ratings**

1. Question 5: People believe in and trust their senior leaders. (Leader Group: 50%, Employee Group: 40%)
2. Question 8: People believe in what they (and/or the organization) provide to their customers. (Leader Group: 100%, Employee Group: 100%)
3. Question 9: People feel they are adequately recognized and appreciated. (Leader Group: 100%, Employee Group: 70%)
4. Question 10: People have the right tools (computers, systems, etc.) to do their job. (Leader Group: 75%, Employee Group: 80%)
5. Question 12: People feel like they can achieve a work-life balance as an employee of the company. (Leader Group: 100%, Employee Group: 90%)
6. Question 14: Managers support their teams to be successful. (Leader Group: 75%, Employee Group: 90%)

### **Most Somewhat Agree Ratings**

1. Question 1: People are able to act on their own authority and innovate on the job. (Leader Group: 25%, Employee Group: 50%)
2. Question 3: People are able to easily work with other teams or colleagues without barriers. (Leader Group: 25%, Employee Group: 40%)
3. Question 4: People from diverse backgrounds and opinions are able to collaborate. (Leader Group: 25%, Employee Group: 10%)
4. Question 6: People feel they are compensated fairly. (Leader Group: 25%, Employee Group: 50%)
5. Question 7: People feel the company's benefits meet their needs. (Leader Group: 50%, Employee Group: 30%)
6. Question 11: People feel that there are enough people on their team to support their workload. (Leader Group: 50%, Employee Group: 30%)
7. Question 15: People feel they have the training they need to do their job. (Leader Group: 25%, Employee Group: 20%)

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### Most Neutral Ratings

1. Question 6: People feel they're compensated fairly. (Leader Group: 25%, Employee Group: 20%)
2. Question 7: People feel the company's benefits meet their needs. (Leader Group: 50%, Employee Group: 10%)
3. Question 11: People feel that there are enough people on their team to support their workload. (Leader Group: 50%, Employee Group: 10%)
4. Question 15: People feel they have the training they need to do their job. (Leader Group: 25%, Employee Group: 10%)

# Appendix O

## Qualitative Survey Results

Question	Comment Number	Leader Group Comments (LC)	Comment Number	Employee Group Comments (EC)
1. People are able to act on their own authority and innovate on the job.	LC1	People are able to act upon their own authority within the boundary of their job responsibilities, sharing innovative methods and ideas with others. Some business functions are driven by exacting customer requirements where authority and innovation are restricted.	EC1	The reason I say somewhat is the items that are made here have a drawing that sets the standard of how they are made through dimension, hardware placement, and markings. We also do have brainstorming sessions that allow coworkers to bounce ideas off of one another to make a better product or fix issues that have arrived while building a product.
	LC2	Being a machine shop the operators possess a skill set that requires them to think outside the box and problem-solve.	EC2	Most individuals are good about acting on their own authority, however there are a few people who need constant instructions even for the simplest of tasks.
2. There are opportunities for people to grow and develop in the company.	LC3	EMT uses a people-first approach in dealing with its team members. This includes sending its members to school or any classes people may want to take.	EC3	This company thrives on people learning more. They offer courses through Coursera and six Sigma.
		-	EC4	EMT is fantastic about getting individuals trained and taught through their desired field creating a great

				knowledge base and work environment.
<b>3. People are able to easily work with other teams or colleagues without barriers.</b>	LC4	Open door policies and easy access to other teams make working with others a daily occurrence	EC5	Sometimes team members themselves, do not co-operate within the team or adapt to make positive changes.
	LC5	This organization prides itself on the open communication forum between management and its team members.	EC6	Coworkers work with each other on a daily basis. Through brainstorming, getting parts out the door, and having verification from another coworker on a part they are working on.
		-	EC7	In the machine shop everyone works well with one another, however communication lacks greatly between the office and shop areas.
<b>4. People from diverse backgrounds and opinions are able to collaborate.</b>		-	EC8	Most of the time. There are sometimes when opposite opinions just cannot collaborate.
		-	EC9	It doesn't matter who you are, it is easy to collaborate with one another.
<b>5. People believe in and trust their senior leaders.</b>	LC6	Management is available and out on the floor on a regular basis as well as twice monthly at our company lunch/information meetings.	EC10	The reason I say this is that I feel a majority of people believe and trust in their senior leaders. There is a handful that I am not sure of that is why I say somewhat.

		-	EC11	A few senior managers have no idea what they are talking about when it comes to the machining field in general.
<b>6. People feel they're compensated fairly.</b>		-	EC12	I picked neutral as I have never had any discussions on this topic with any employee.
		-	EC13	This company is very generous. We get Quarterly bonuses, biweekly lunches, and many other things.
		-	EC14	As the price of everything rises in the world, the compensation should be raised even slightly more to give a comfortable barrier for the employees. The pay is not horrible however it could be better.
<b>7. People feel the company's benefits meet their needs.</b>	LC7	Some of the older employees remember and talk about the "old program" for sick leave which was 80 hours vs the new program which is 40 hours	EC15	Again, neutral, as I have never had any discussions with other employees regarding this.
		-	EC16	I cannot speak for everyone, but I have not heard anyone complain. We are offered a very good benefits package.
		-	EC17	The benefits are amazing but expensive.

8. People believe in what they (and/or the organization) provide to their customers.		-	EC18	The products that we make here are made with pride and precision.
		-	EC19	We create a proven and quality product for our customers.
9. People feel they are adequately recognized and appreciated.	LC8	Great example is our lunch meeting	EC20	Every luncheon that we have people are always being recognized for the jobs they are doing. Also, for the anniversary and birthdays of that lunch.
	LC9	I feel as though the senior leadership team goes the extra mile to take the time to recognize the achievements of its team members.	EC21	No comment.
10. People have the right tools (computers, systems, etc.) to do their job.		-	EC22	If someone needs something through computer program to hands on tools this company will get it for them.
		-	EC23	We have most of the tools to do our jobs but having tools and equipment to make our jobs easier and better would be appreciated.
11. People feel that there are enough people on their team to support their workload.		-	EC24	The workload and amount of people average out nicely. Also, I have seen people help out if they are slow with

				someone that s busier.
		-	EC25	With how slow we are, we have more than enough people at the moment.
<b>12. People feel like they can achieve a work-life balance as an employee of the company.</b>	LC10	There is a very nice Monday through Friday, 7 am to 3:30 pm schedule.	EC26	This company believes very much in everyone having a very good work-life balance. Clock in is 7:00a.m clock out is 3:30. there are a few that work 8 to 4:30. the workplace is not too stressful. If someone needs to adjust time or need time off there is no problem.
		-	EC27	It's easy to leave work at work for when you're home, however a four day ten hour shift would be incredible.
<b>13. People buy into where the company is going.</b>	LC11	Still have some employees who are focused elsewhere as to direction company is working toward.	EC28	At every luncheon the CEO lets everyone know where this company is going and where he would like to see us in the future. I feel a majority of people are comfortable in where this company is going and where their place in this company is going.
		-	EC29	It's hard to imagine right now with how slow production is, but Tom and Danny are creating a very happy and stable work environment

				which I believe will make this company grow.
<b>14. Managers support their teams to be successful.</b>		-	EC30	This is one thing that I admire about this place is the support that people get from their superiors.
		-	EC31	Direct management are supportive but upper management has little to no clue what goes on in the production of parts.
<b>15. People feel they have the training they need to do their job.</b>		-	EC32	This company goes out of it way to make sure everyone has the training that they need do their job safely, efficiently, and correctly.
		-	EC33	If we do not have the training to do our job, then the company will be more than happy to provide the training needed.

*Note.* The participant survey comments are original. Accordingly, there are a few grammar and mechanical errors.

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## Appendix P

### Qualitative Analysis Tables

Leader Group

Theme	Count	Positivity
Innovation/autonomy	2	Mixed
Growth/development	1	Positive
Collaboration	1	Positive
Senior leadership	1	Positive
Comp./benefits	1	Mixed
Communication	1	Positive
Customers	0	Neutral
Recognition	2	Positive
Tools/resources	0	Neutral
Work-life balance	1	Positive
Company direction	1	Mixed
Manager support	0	Neutral

Employee Group

Theme	Count	Positivity
Innovation/autonomy	1	Positive
Growth/development	1	Positive
Collaboration	2	Mixed
Senior leadership	1	Positive
Comp./benefits	2	Negative
Communication	2	Mixed
Customers	1	Positive
Recognition	3	Mixed
Tools/resources	2	Mixed
Work-life balance	0	Neutral
Company direction	1	Positive
Manager support	1	Positive

---

## Appendix Q

### Sample MVV Integrations

#### Sample Job Posting Preamble

At EMT, we truly strive to live authentically and consistently by our mission, vision, and values.

#### Our Mission

To provide our customers with products that are designed and manufactured to meet their needs for precision, effectiveness, value, and timeliness. And giving our employees a positive work environment full of opportunity which allows them to fulfill their personal goals and impact our community.

#### Our Vision

We will become a top-tier manufacturer of RF antennas in the world and one of the 10 largest contract manufacturers in New York State.

#### Our Values

- Trust
- Communication
- Commitment
- Accountability
- Respect
- Results
- Growth
- Service

If our mission, vision, and values resonate with you, we welcome you to apply.

#### Sample Performance Review MVV Integration

Please rate the employee on how often they embody our values.

Value	Infrequently	Somewhat Infrequently	Unobserved	Somewhat Frequently	Frequently
<i>Trust</i>					
<i>Communication</i>					
<i>Commitment</i>					
<i>Accountability</i>					
<i>Respect</i>					
<i>Results</i>					
<i>Growth</i>					
<i>Service</i>					

# Appendix R

## Good Jobs Strategy Recommendations

Solution	Description	Alignment Category	DRQ Area	Supporting Concept(s) and Literature	VBM: Social Capital Building Block
<b>Do</b>	<b>What does EMT need to do to get to where it wants to be?</b>				
<i>People Excellence</i>	Form a compensation task force to recommend ways to improve total rewards at EMT, particularly related to monetary and non-monetary incentives, recognition, and rewards. Do not change work-life benefits (LC10, EC26). Refer the task force to Appendix D for the list of the competencies, skills, and behaviors to recognize and reward in the total rewards strategy.	HCM	Motivation	Motivation theories (Luthans et al., 2015); monetary and non-monetary incentives (Kosfeld et al., 2016; Willer et al., 2019); task forces (Fuller et al., 2021; Maher, (2000)	Reinforce change and innovation with formal mechanisms
<i>Operational Excellence</i>	Offset people-related investments by focusing on				

	operational excellence.				
<i>Streamline Products</i>	Narrow product line to the top-selling products; focus on product application and SWAP.	Strategy	Mission, Vision, and Values	Competitors' product application, SWAP, and process innovation (ABI Research, 2019; Fractal Antenna Systems, 2023; Metawave, n.d.-a; RF Globalnet, 2016)	Fostering understanding and conviction
<i>Standardize but Empower</i>	Create a continuous improvement task force that will give employees their needed autonomy (LC1, Fig. 7, Fig. 8) and foster greater collaboration (EC5, EC7, EC8) by allowing employees to overcome strict product specifications (EC1) by recommending process improvements.	HCM, Structure, Culture	Change and innovation	Engagement and involvement (The Josh Bersin Company, 2022; Shuck & Wollard, 2009); cross-functional collaboration and knowledge sharing (Dunlap, n.d.; Rezvani et al., 2018); task forces (Fuller et al., 2021; Maher, 2000)	Reinforce change and innovation with formal mechanisms
<i>Cross-Train</i>	Provide time for cross-training since employees believe they have enough free time (EC24, EC25).	HCM	Change and innovation	Learning organization (Ellinger & Ellinger, 2014; Garvin et al., 2008)	Developing talent and skills

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<i>Operate with Slack</i>	EMT should not hire more employees since employees already believe they have enough to handle their workload (EC24, EC25).	HCM	New ways of working	HCM implications for M&A integration (Graebner et al., 2017)	Reinforce change and innovation with formal mechanisms
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## Appendix S

### Change Management Plan Step-by-Step

Task	Who?	Start Date	End Date	Estimated Hours	Description
Form the Change Management Team	President	1/1/2024	1/15/2024	1	Form a change management team by appointing key stakeholders from various departments and impacted groups.
Adopt Change KPIs	Change Management Team	1/16/2024	1/31/2024	1	Develop measurable KPIs to track progress and success of change.
Develop and Execute the Communication Plan	Change Management Team	2/1/2024	2/15/2024	2	Craft a comprehensive communication plan and execute it.
Identify Change Agents	Change Management Team	2/16/2024	3/1/2024	16	Identify influential individuals within the organization who can champion change and advocate adoption.
Create Task Forces	Change Management Team	3/2/2024	3/15/2024	1	Establish specific task forces dedicated to change implementation aspects, such as training, communication, and resistance management.
Adopt Group Charters & Collaboration Norms	Task Forces	3/16/2024	3/22/2024	2	Create clear charters for task forces that outline their goals, responsibilities, and decision-

					making processes. Establish collaborative norms to ensure effective communication, conflict resolution, and shared accountability within the groups.
Conduct Creative Problem-Solving Training	HR Director	3/23/2024	3/31/2024	16	Provide creative problem-solving skills to change agents and task force members to overcome implementation obstacles.
Develop and Update Materials	HR Director	1/16/2024	2/15/2024	40	Conduct surveys and interviews with employees to understand their preferred training methods. Update and improve existing training materials based on the findings. Revise job descriptions and postings, refine performance review forms, and update other company policies and procedures to reflect the latest changes.
Implement Updated Materials	HR Director	2/16/2024	3/15/2024	8	Introduce and roll out the updated materials to relevant stakeholders. Train leaders and managers on using the new materials. Update online platforms

					and systems with the revised documents and communicate changes to employees through various channels (e.g., intranet, company lunches).
Monitor and Review	HR Director	3/16/2024	3/31/2024	3	Track and evaluate the effectiveness of the updated materials. Collect feedback from employees and managers, analyze usage data and metrics, and identify areas for further improvement.
Identify Leadership Training Needs	HR Director, on behalf of Change Management Team	1/1/2024	1/15/2024	8	Conduct a needs assessment to identify key leadership competencies and development areas. Consult with the Leadership Team and Change Management Team, review existing leadership development programs, and conduct surveys and interviews with leaders at various levels.
Identify Training Requirements & Delivery Options	HR Director, on behalf of Change Management Team	1/16/2024	2/15/2024	8	Based on identified needs, determine specific training requirements, including content topics, format, and duration. Explore

					various delivery options such as internal trainers, external training providers, and e-learning platforms.
Develop Training Materials & Select Facilitators	HR Director, on behalf of Change Management Team	2/16/2024	3/15/2024	40	Develop or source training materials, select and engage qualified facilitators, and finalize training schedules and logistics.
Involve Managers in MVV Presentations	President	4/1/2024	4/15/2024	24	Engage managers in developing and scheduling presentations on the company's mission, vision, and values for their teams.
Begin MVV Presentations	Managers	4/16/2024	12/31/2024	9	Managers begin delivering 15-minute presentations on the MVV to their teams through the end of 2024.
Begin Leadership Training	HR Director, facilitator(s)	5/1/2024	12/31/2024	35	Launch the leadership training program for identified participants. Estimate 1 hour per week through the end of 2024.
Task Forces Begin Meeting	Task forces	4/1/2024	12/31/2024, then ongoing	38	Task forces begin meeting to use creative problem-solving to identify process and product application innovations. One-hour meetings

					once a week are estimated.
Gather MVV Feedback & Evaluation	Change Management Team	7/15/2024	9/15/2024	3	Collect feedback from employees and managers on the effectiveness of the MVV presentations. Analyze the feedback and identify areas for further improvement.
Identify Employees & Training Needs	HR Director, on behalf of Change Management Team	7/1/2024	7/31/2024	24	Analyze skill gaps and identify employees who would benefit from cross-training. Develop a cross-training plan with specific skills and objectives.
Implement Cross-Training Program	HR Director, on behalf of Change Management Team	8/1/2024	9/30/2024	8	Facilitate cross-training sessions with designated mentors and resources. Monitor progress and evaluate the effectiveness of the program.
Task Forces Finalize Recommendations	Task forces	7/1/2024	7/15/2024	2	Task forces finalize their recommendations for new total rewards offerings and process improvements.
Task Forces Present Recommendations	Task forces	7/16/2024	7/31/2024	2	Task forces present their initial recommendations to the Change Management Team for review and feedback.

Change Management Team Review & Evaluation	Change Management Team	8/1/2024	8/15/2024	4	Change Management Team evaluates recommendations, requests clarification from task forces as needed, and makes final recommendations to the Leadership Team.
Leadership Team Review & Approval	Leadership Team	8/16/2024	8/31/2024	4	Leadership Team reviews and evaluates recommendations, working with task forces to amend them as needed, and provides final approval for implementation.
Initiate Approved Recommendations	Change Management Team	9/1/2024	9/30/2024	?	Implement approved recommendations for new total rewards offerings and process improvements.
Monitor KPIs & Track Progress	Change Management Team	9/1/2024	9/30/2024	2	Track and monitor key performance indicators to measure the effectiveness of the implemented changes.
Change Management Team Reporting	Change Management Team	9/25/2024	9/30/2024	8	Change Management Team prepares and submits a report to leadership summarizing the status of implementations, KPI data, and qualitative

					feedback from stakeholders.
Analyze Feedback & Refine MVV Messaging	Change Management Team	10/15/2024	12/15/2024	4	Analyze feedback gathered from employees and managers, and refine MVV messaging and communication strategies based on findings.
Ask Task Forces to Investigate New Training Programs and Report Back to HR director	HR Director, task forces	10/31/2024	11/30/2024	1	HR Director asks the task forces to investigate and recommend any new training programs based on external conditions and changes.
Change Management Team Review & Evaluation	Change Management Team	N/A	N/A	2	The Change Management Team reviews recommendations from task forces, providing feedback, requesting clarification, and making final recommendations to leadership.
Leadership Team Review & Approval	Leadership Team	N/A	N/A	8	The Leadership Team reviews and approves recommendations, collaborating with task forces on any necessary amendments.
Monitor KPIs & Adjust as Needed	Change Management Team	10/1/2024	N/A	2	Continuously track and monitor KPIs, analyzing data to identify areas for improvement and adjust implemented

					changes as needed.
Monitor for & Respond to Resistance	President, Leadership Team, Change Management Team	10/1/2024	N/A	?	Actively monitor for signs of resistance to change, address concerns proactively, and implement strategies to overcome resistance when needed.
Monitor for Scenarios & Refer to Guide	President, Leadership Team, Change Management Team	10/1/2024	N/A	?	Continuously monitor for anticipated and unforeseen scenarios, referencing the scenario planning guide for appropriate responses and adjustments.
Conduct ADP Survey	HR Director, on behalf of Change Management Team	1/2/2025	1/16/2025	4	Administer an identical survey to the one conducted in ADP to measure the impact of changes on strategy, structure, culture, and HCM.
Prepare & Submit Final Report	Change Management Team	12/15/2024	12/31/2024	16	Change Management Team prepares and submits a comprehensive report to leadership summarizing key achievements, challenges, and recommendations for future initiatives.

## Appendix T

### Change Management Team Communication Plan

Who	Audience	Platform(s)	Message
President, on behalf of the Change Management Team	Entire Company	First company lunch of 2024	Summarize the need for change and create excitement for the future; announce Change Management Team, and future announcement about how EMT can accomplish its MVV through an exciting new initiative
President	Frontline Managers  This is a key stakeholder group because they enjoy a high level of trust from employees and will be responsible for implementing recommendations.	In-P	Enlist frontline managers to be change agents and invite them to build excitement about the future change initiative.
President	Entire Company	Second company lunch of 2024	Announce the creation of the Change Management Team and new change initiative.
HR Director, on behalf of the Change Management Team	Entire Company	Second company lunch of 2024	Give a condensed version of the recommendation presentation to announce the creation of the task forces, conduct a Q&A, and provide a sign-up list and

			deadline to sign up.
HR Director, on behalf of the Change Management Team	Task Force Members	Before the third or fourth company lunch of 2024	After the sign-up deadline, the Change Management Team ensures the task forces are representative as recommended and informs the task forces of their members.
HR Director, on behalf of the Change Management Team	Entire Company	Fourth company lunch of 2024	Announce task forces.

## Appendix U

### CMP Related to Concepts

Task	BKD	Solution	Lewin
Create the Change Management Team	N/A	N/A	Unfreeze
Adopt Change KPIs	N/A	N/A	Unfreeze
Develop and Execute the Communication Plan	NA	N/A	Unfreeze
Identify Change Agents	Do	Implement Modified Good Jobs Strategy	Unfreeze
Create Task Forces	Do	Implement Modified Good Jobs Strategy	Unfreeze
Adopt Group Charters & Collaboration Norms	Do	Implement Modified Good Jobs Strategy	Unfreeze
Conduct Creative Problem-Solving Training	Know & Do	Implement Modified Good Jobs Strategy	Unfreeze
Develop and Update Materials	Be, Know	Integrate MVV into Employee Lifecycle, Employee-Directed Training	Change
Implement Updated Materials	Be, Know	Integrate MVV into Employee Lifecycle, Employee-Directed Training	Change
Monitor and Review	Be, Know	Integrate MVV into Employee Lifecycle, Employee-Directed Training	Change
Identify Leadership Training Needs	Know	Conduct leadership training	Change
Identify Training Requirements & Delivery Options	Know	Conduct leadership training	Change
Develop Training Materials & Select Facilitators	Know	Conduct leadership training	Change
Involve Managers in MVV Presentations	Be	Regular MVV Presentations from Frontline Managers	Change
Begin MVV Presentations	Be	Regular MVV Presentations from Frontline Managers	Change
Begin Leadership Training	Know	Conduct leadership training	Change
Task Forces Begin Meeting	Do	Implement Modified Good Jobs Strategy	Change

Gather MVV Feedback & Evaluation	Be	Regular MVV Presentations from Frontline Managers	Refreeze
Identify Employees & Training Needs	Do	Implement Modified Good Jobs Strategy	Change
Implement Cross-Training Program	Do	Implement Modified Good Jobs Strategy	Change
Task Forces Finalize Recommendations	Do	Implement Modified Good Jobs Strategy	Change
Task Forces Present Recommendations	Do	Implement Modified Good Jobs Strategy	Change
Change Management Team Review & Evaluation	Do	Implement Modified Good Jobs Strategy	Change
Leadership Team Review & Approval	Do	Implement Modified Good Jobs Strategy	Change
Initiate Approved Recommendations	Do	Implement Modified Good Jobs Strategy	Change
Monitor KPIs & Track Progress	Do	Implement Modified Good Jobs Strategy	Refreeze
Change Management Team Reporting	Do	Implement Modified Good Jobs Strategy	Change
Analyze Feedback & Refine MVV Messaging	Be	Regular MVV Presentations from Frontline Managers	Change
Task Forces Continue Recommendations	Do	Implement Modified Good Jobs Strategy	Change
Ask Task Forces to Investigate New Training Programs and Report Back to HR Director	Know	Employee Training Program Update	Change
Change Management Team Review & Evaluation	Do	Implement Modified Good Jobs Strategy	Change
Leadership Team Review & Approval	Do	Implement Modified Good Jobs Strategy	Change
Monitor KPIs & Adjust as Needed	Do	Implement Modified Good Jobs Strategy	Refreeze
Monitor for & Respond to Resistance	Do	Implement Modified Good Jobs Strategy	Refreeze
Monitor for Scenarios & Refer to Guide	Do	Implement Modified Good Jobs Strategy	Refreeze
Conduct ADP Survey	Do	N/A	Refreeze
Prepare & Submit Final Report	Do	N/A	Refreeze

## Appendix V

### Reinforcement Strategies

Solution	Positive Reinforcements	Negative Reinforcements
Integrate MVV into Employee Lifecycle	<ul style="list-style-type: none"> <li>At company lunches, celebrate individuals and teams for wins, big and small (Creasey, 2023)</li> <li>Use the newly updated MVV-integrated employee lifecycle process to give positive feedback to employees during formal review periods</li> </ul>	<ul style="list-style-type: none"> <li>One-on-one meetings to discuss poor performance and listen to concerns while suggesting better behaviors</li> <li>Use the newly updated MVV-integrated employee lifecycle process to give constructive feedback to employees during formal review periods</li> <li>Use the newly updated MVV-integrated employee lifecycle process to issue corrective actions up to and including termination (as a last resort)</li> </ul>
Regular MVV Presentations from Frontline Managers	<ul style="list-style-type: none"> <li>Give employees opportunities to ask questions and share their excitement</li> <li>Answer questions and share in excitement</li> </ul>	<ul style="list-style-type: none"> <li>Give employees opportunities to ask questions and share concerns</li> <li>Answer questions, address concerns and any rumors (Raza, 2019)</li> </ul>
Leadership Training	<ul style="list-style-type: none"> <li>Offer formal and informal training to make learning more comprehensive (Raza, 2019)</li> <li>Give a certificate of completion when participants finish the initial program</li> </ul>	<ul style="list-style-type: none"> <li>One-on-one meetings to discuss poor attendance if needed, suggesting they participate and tying the change to the culture and values (Raza, 2019)</li> </ul>
Employee Training Program Update	<ul style="list-style-type: none"> <li>Offer formal and informal training to make learning more comprehensive (Raza, 2019)</li> <li>Give a certificate of completion when participants finish the initial program</li> </ul>	<ul style="list-style-type: none"> <li>One-on-one meetings to discuss poor attendance if needed, suggesting they participate and tying the change to the culture and values (Raza, 2019)</li> </ul>

Employee-Directed Training	<ul style="list-style-type: none"> <li>• Offer formal and informal training to make learning more comprehensive (Raza, 2019)</li> <li>• Give a certificate of completion when participants finish the initial program</li> </ul>	<ul style="list-style-type: none"> <li>• One-on-one meetings to discuss poor attendance if needed, suggesting they participate and tying the change to the culture and values (Raza, 2019)</li> </ul>
Implement Modified Good Jobs Strategy	<ul style="list-style-type: none"> <li>• Use the total rewards program created by the Compensation Task Force, recognize/reward those who exhibit the competencies, skills, and behaviors needed to support change and innovation (Raza, 2019)</li> <li>• Enhanced job satisfaction as a result of improvements</li> <li>• Ask how the employee or team wants to be rewarded or recognized (Alsher, 2016)</li> </ul>	<ul style="list-style-type: none"> <li>• Do not offer rewards to those who do not display attitudes or behaviors that support change and innovation, listening to their concerns instead</li> <li>• Identify under-performers, utilize the BKD framework to reinforce MVV, then identify any training/skills gaps that could be hindering success, and next monitor how the employee does post-intervention</li> </ul>

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## Endnotes

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