CORPORATE UNIVERSITY SUCCESS DRIVERS: TESTING THE MALCOLM BALDRIGE FRAMEWORK IN THE CORPORATE UNIVERSITY ENVIRONMENT

by

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Submitted to the Graduate Faculty of the
College of Education
Texas Christian University
in partial fulfillment of the requirements
for the degree of

Doctor of Education

May 2021

ACKNOWLEDGEMENTS

Throughout the writing of this dissertation, I have received a great deal of support and assistance. I would like to thank all of those who supported me.

I would first like to thank my committee chair, Dr. Don Mills who helped motivate me to get over the finish line. I would also like to thank the other members of the committee Dr. Jo Beth Jimerson, Dr. Steffen Palko, and Dr. Bob Greer for taking the time to review this work and support me in the process. In addition, I must also thank my previous support system Dr. Mike Sacken and Dr. Cornell Thomas. They recruited me and kept me moving forward.

A special thank you goes to my bosses at work including Dr. Jim Dunn, Dr. Cynthia St. John, and Michelle Kirby for ensuring that I continued the path and stayed the course. My colleagues including Dr. Meera Ananthaswamy, Candy Baptist, and Asia Wellington also kept at me to continue this journey. I am certain there was never a week that I didn't get asked about it by one of my colleagues.

To my friend Dr. Osvaldo Jimenez, thank you for taking the time to read and review this for me. It helped me get over the finish line.

Finally, and most importantly, I would like to thank my family. To my wife Juliana, thank you for your patience and persistence and never giving up on this dream even when I was ready to stop. To my mom Dee Dee, thank you for pestering me because you believed that I could do this. To my mother-in-law Dina, thank you for your selflessness, making time so I could break away for days on end to get this done. To my dad Armando, thank you for telling me I was the prize to make me belief in myself. To my father-in-law Julian, thank you for your confidence in me. To my stepdad, Denis, thank you for your support. To my two little girls Zayla and Mila, when I started this degree neither one of you were even a twinkle in my eye. May you someday look at this and be inspired to work hard and never give up. As I always tell you, *nothing is impossible*.

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CHAPTER I: INTRODUCTION

The Corporate University (CU) phenomenon has rapidly proliferated within the field of adult education. As of 2014, the total population size of CUs stood at nearly 4,000 within the United States and had grown to more than 10,000 globally (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). The list of prominent organizations adopting a CU approach boasts the names of many successful business leaders including but not limited to Mars, Shell, Deloitte, Ikea, (Rademakers M. F., 2014) Toyota, Motorola, (Allen M. , Introduction, 2002) Arthur Little, and Anheuser Busch (Meister, 1998). While many have adopted the moniker of CU very little is discussed within the field of education. This is likely because a CU is a non-traditional educational entity. A CU operates within a business entity and its existence reflects an approach that people are a company's most important strategic lever (Senge, 1990). Given differences in organizations, each uses a slightly different approach to bring their CU to life.

The CU phenomenon explosion coincides with significant growth in corporate expenditure on learning and development. Economic analysis shows that over the past two decades corporate education expenditures have outpaced K-12 and Higher Education expenditures as a percentage of total growth (Cavanagh, 2013; GSV Advisors, 2012). Recent studies indicate that in 2015, companies invested $1,252 per individual on learning and development. This is a significant uptick from 2008, when the average cost per employee was $1,068 per employee (Ho, 2016). That money is being spent on a variety of people development activities including content development, training workshops, psychometric assessments, tuition reimbursement, performance and succession tools, and internal learning professional salaries. Many of these activities are conducted in concert with external organizations including higher education and secondary education.

Despite this growth in investment, the CU has yet to receive appropriate academic attention as critical component of the full continuum of education and human development services. Some of this arises from its contentious origins with academia when experts called out education institutions as not meeting the needs of business (Meister, 1998). Another attribution for lack of scholarship in the CU activities relates to its rapid proliferation. Numerous anthologies have been put back together to capture the movement with a focus on allowing each organization to tell its own story (Allen M. , The Corporate University Handbook: Designing, Managing, and Growing a Successful Program, 2002; Paton, Peters, Storey, & Taylor, Handbook of Corporatre University Development: Manging Strategic Learning Initiatives in Public and Private Domains, 2005; Allen M. , The Next Generation of Corporate Universities: Innovative Approaches for Developing People and Expanding Organizational Capabilities, 2007). Due to this lack of scholarship, CU experts have called out gaps of study in effective management of CUs as a critical thread of literature that needs addressing (Lui Abel & Li, 2012; Rademakers M. F., 2014). With such rapid proliferation in expense for employee development, the time has come to focus on attention on practices which can enable the effectiveness of a CU.

This dissertation will take the preliminary steps to close this gap by applying and testing a validated and reliable strategic management model, the Malcom Baldrige National Quality Award (MBNQA) within the CU context. Specifically, I will explore the degree to which relevant categories of the MBNQA have an impact on results within the corporate learning environment. Findings will provide scholars and practitioners a better understanding of management levers for maximizing their effectiveness and help to identify ways in which these education entities can contribute within the broader field of education.

This first chapter provides context for the study including the statement of the problem, purpose, and key research questions of the proposed study. Additionally, I will cover the significance of answering these questions. The chapter will then end with some assumptions, limitations, and key definitions.

Background

Education literature has been focused on traditional segments of the education industry including K-12, Higher Education, and Vocational learning efforts. The CU, which started as a disruptive and frowned upon trend by higher education (Meister, 1998), has seen little academic research and exploration. This has left an incomplete picture of the full spectrum of educational entities. This study focuses on this gap in CU literature with emphasis on key processes that will deliver results.

To do this, we must look back nearly twenty years ago. In that literature, Campbell and Dealtry (2003) suggested that management of the CU was critical to success. They state that in the CU environment "there is a need for systematic improvement that includes the principles of TQM" (p. 377). Then, almost 10 years ago, scholars asked "What core CU processes can produce the most impact on the success of CU operations?" (Lui Abel & Li, 2012, p. 122) and most recently, that question was reinforced by additional scholars (Rademakers M. F., 2014). Surprisingly, no one has explored effective management practices within the CU.

One manifestation of TQM is the MBNQA. The MBNQA offers guiding managements practices that can apply to the CU context. As a framework, it has been scientifically validated as representative of TQM principles (Curkovic, Melnyk, Calantone, & Handfield, 2000) and further validated as a model that predicts results effectively in multiple industries including Manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000) Health Care (Meyer & Collier,

2001), Municipal Government (Peng & Prybutok, 2015) and Education (Abdulla Badri, et al., 2006). The reason this model works is the flexibility of inquiry. Questions within the framework focus on process questions or "how" an organization goes about its work. These types of process are of critical important to success within the CU (Lui Abel & Li, 2012). Additional detail on the framework will be provided in the literature review.

Statement of the Problem

This dissertation addresses two sets of problems. The first is primarily academic in nature. The academic problems are (1) limited availability of academic research regarding the corporate learning context and thus a limited perspective of the full education continuum, (2) limited nature of academic inquiry, and (3) open questions that have not been addressed by researchers. These lead directly into the second set of problems, which are focused on practice. A lack of academic focus has led to inconsistent practices, numerous definitions and at time conflicting views of the phenomenon. This environment prevents effective sharing of practices and an inability to focus on what is most important.

The most pertinent challenge with regards to the CU space is the lack of topical academic research and literature. The current state of the CU landscape is constructed of literature from trade publications and professional organizations. This issue is compounded in day-to-day practice by the fact that in lieu of a body of academic evidence, much of the literature is written by consultants and professional service organizations whose primary intent is to make money off consulting. This limited set of resources left me with numerous dead ends on my initial journey to explore the issues. As such, I reached out to multiple authors of the anthologies and handbooks written about the CU environment. These authors included Mark Allen, Jeanne

Meister, Martyn Rademakers, and Kevin Wheeler. Mark Allen and Martyn Rademakers responded quickly and helped me frame my thinking.

Mark Allen has authored two anthologies on CUs as well as published journal articles for the American Management Association. He is currently a professor of Management at Pepperdine. Martyn Rademakers is also a professor at Amsterdam Business School, in Amsterdam. He has authored an anthology on Corporate Universities and published articles in the *Journal of Workplace Learning*. They commiserated on the small set of literature, sent me some articles that they thought would be helpful based on my study topic and directed me to a few obscure European journals. Both calls ended with commending me for choosing a field that has such a tremendous lack of research (Allen M. , personal communication, 2015; Rademakers M. , 2015). These communications demonstrate a need from current scholars to expand the base of literature.

The second challenge is the need to add diversity to the methods of inquiry into to the current set of CU literature. Most CU literature takes the form of qualitative inquiry and focuses specifically on Narrative Research, Case Study, or Phenomenology (Paton, Peters, Storey, & Taylor, Corporate Universities as Strategic Learning Initiatives, 2005). Specifically, this dominant epistemology tends to be constructionism, with a focus primarily on lived experience shaping the discussion. While this research is helpful in understanding the in-depth essence of the context from a lived experience there is little that can be taken or applied for generalization (Merriam, 2009) and does not arrive at any empirical description of the phenomenon to help establish a collective wisdom on the topic. This also manifests itself in practice. As learning leaders examine bodies of work, key questions emerge like “how did they get to do that?”

Expanding the methodology to cover more empirical forms will help to prioritize where qualitative inquiry can have the most impact for day-to-day practice.

The third challenge is a lack of effective academic response to unresolved research questions on management of the learning, talent development, and CU space. Lui Abel and Li's study (2012) indicates future research should focus on core processes that lead to success. Rademakers (2014) work also called for evaluating operations to better understand day to day practices. No advancement of this research thread has been done to date. Instead, research has continued to focus primarily on describing the CU phenomenon. Closing this gap will provide a new lens for viewing CUs and support Learning Leaders who want to know more about how to go about solving the problem than the resolution itself.

Purpose of the Study

The purpose of this study is to empirically explore the relationships between the most relevant Malcom Baldrige National Quality Award (MBNQA) categories and relationships within the CU. This research will address unresolved questions from prior literature and close the open gaps in literature. Specifically, results from this study will create a framework for thinking about how to improve outcomes in the CU environment.

Research Questions and Hypotheses

Using the MBNQA framework allows for the application of a well-studied model representing TQM in CU environment. This study builds upon prior research in manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), health care (Meyer & Collier, 2001), education (Abdulla Badri, et al., 2006) and government (Peng & Prybutok, 2015) by examining the relationship between MBNQA variables and results. Empirically, testing the framework between categories and results is critical to identifying and prioritizing best practices in the CU

environment. The research question explored in this study is "To what degree do the MBNQA categories predict success in the learning, talent development, and CU environment?" There are five key hypotheses to test, which are included in Table 1.

Table 1: Research Hypotheses

Number	Hypotheses
H1	A linear relationship can be established between MBNQA framework (i.e. Category variables and the Results category)
H2	The leadership category of the MBNQA framework will have a statistically significant positive impact on results.
H3	The strategy category of the MBNQA framework will not have a statistically significant impact on results.
H4	The customer focus category of the MBNQA framework will have a statistically significant positive impact on results.
H5	The operations category of the MBNQA framework will have a statistically significant positive impact on results.

Significance of Study

Effectively completing this study will have a significant impact in the domains of professional practice and academia. Identifying consistent ways of improvement is important not just for theory, but in real world practice. This is important to me as a practitioner because it expands the opportunities for professional development, while opening the door to future opportunities to study learning, talent development, and the CU function.

First and foremost, the results of this study will help practical advancement of practice improvements within the learning, talent development, and CU environment. By the very nature of identifying key components of the MBNQA framework (Leadership, Strategy, Customer Focus, Operations) that contribute to results, the study also enhances the ability to make them a focal point for operations. Underlying practices within these categories become areas for evaluation and improvement.

Moreover, identifying these categories provides an underlying benefit to Learning Leader professional development. In the field of Corporate Learning, there are few professional development programs. Instead, there are consultants, forums, and conferences that convene Learning Leaders together for networking. Outcomes of this literature will better prioritize areas of competency development as a part of professional development for a role. For example, if the customer focus category drives outcomes then professional development can be done translating customer focus to leadership competencies and sharing explicit practices.

A second significant impact on the study will come through academic benefits. To date most of the research on CUs has been qualitative. While qualitative inquiry holds an important place in research, the benefits of adding empirical study expand the knowledge base. Open questions such as "What core CU processes can produce the most impact on the success of the CU operations?" (p. 122) require a response via empirical inquiry. This will link process to outcome. These results will provide direction to answer these questions, bringing attention to CUs as well as extending the body of research on the MBNQA from focused on industry to smaller departments within an organization.

This study will enhance the current literature by helping to prioritize future research on effectiveness of CU operations. Given the nature of this study, research can be extended across many different categories of CUs including types, geographies, industries, and other case-based studies. Expanding this work related to CU effectiveness will raise awareness of the CU as a phenomenon, while also connecting management literature into a new environment.

Limitations of Study

The primary goal of this quantitative study is to investigate the application of the MBNQA model, including the relationship between construct, categories, and criteria within the

CU environment. As a novel application of the framework, readers may be interested in applying this framework beyond the scope of the research. Readers should be judicious about making broader generalizations based upon the findings as there are both limitations and delimitations that should be considered.

The following are limitations of this specific study: 1) Participant responses are self-report data and we must assume that participants give honest responses; 2) Data will be gathered through an electronic survey link with an encouragement to participate. We must assume that those with the most interest in participating are likely to respond and those answers will not be more favorable or more negative, skewing potential data; 3) Data collected will come from across various organizations sizes and industries. It will not necessarily be reflected equally across all industries or organizational sizes. Results will need to be framed within this construct.

Delimitations of Study

I will make the following assumptions: 1) The instrument which has been used in other constructs, with minor modifications, is accurate at measuring perceptions of effectiveness regarding each of the categories of the MBNQA; 2) Subjects will respond accurately and honestly; 3) Data received are an accurate representation of respondent perceptions and how they understand and interpret the categories and criteria; 4) Only those currently employed within a learning function will respond to the current survey and will respond with their current learning function in mind; 5) Data will be collected from one survey instrument based upon the development of a survey that has been modified to reflect CU operations. It will be focused on the most recent 2019-2020 framework and the knowledge available at that time versus older frameworks that have been tested in prior literature; 6) since the survey will be self-report, results will be driven by perceptions of MBNQA implementation and effectiveness of the items.

While this is consistent with previous approaches and will be covered in the literature review, it is a limitation.

Definition of Terms

The key terms listed appear in this study. Their definitions are provided to clarify meaning as applied in this study.

Corporate University (CU). For this study, a CU will utilize Mark Allen's (2002) definition of a CU, as educational organization within another organization, whose parent organization's primary purpose is not to provide educational services. Since the name is used broadly and oftentimes out of context, corporate universities, corporate talent development, and corporate talent management functions are all merged under this title. This will mean that learning leaders may not necessarily run a "CU" in name, but in alignment with the definition.

Learning Leader. A learning leader is defined as a highest most ranking individual within a learning, training, or development function. By nature of position they lead the CU as described above. Individuals with the title Chief Learning Officer, Chief Talent Development Officer, Executive Director, VP of Talent Management, or equivalent are included.

Performance Excellence. Defined as the elements of a system which when taken together effectively achieve results per customer requirements.

Category. A category is a component of the Malcolm Baldrige National Quality Award framework which houses typical elements and relates to components of an organization operating in an integrated management system. There are seven categories within the framework, six focused on processes and one on results. Each of the categories has key Baldrige items areas for consideration, and criteria questions.

Baldrige Item. A Baldrige item is subset of a category. Typically, all categories are divided into at least two items with a subset of areas to address and specific criteria.

Criteria Questions. These are questions that ask for specific information related to both what an organization does and how it operates. These are specific requirements of the framework.

Malcolm Baldrige National Quality Award Framework. This framework serves a lens through which one can achieve performance excellence. It consists of seven categories of excellence including (1) Leadership, (2) Strategy, (3) Customers, (4) Measurement, Analysis and Knowledge Management, (5) Workforce, (6) Operations, and (7) Results. Taken together this framework serves as a foundational model for how to effectively operate an organization, or sub-unit.

Leadership Triad. Includes process categories 1, 2, and 3 of the MBNQA. These categories are Leadership, Strategy, and Customers respectively. These categories place an emphasis on how an organization's leadership manages and guides an organization based on key customer input.

System Foundation. Comprised of Measurement, Analysis, and Knowledge Management, this is the 4th category of the MBNQA. In the integrated system model, it serves as the foundation of how data is gathered, analyzed, and retained.

Results Triad. Includes process categories 5, 6, and 7 of the MBNQA. These categories include the process categories of Workforce (5), Operations (6), as well as the Results category (7). These categories describe workforce focused elements, key operational processes, and the overarching results they yield.

Summary

As CUs continue to grow in popularity and focus across large companies, the pressure to define how learning, talent development, and CUs deliver results will continue to mount. The inclusion of this field of study into the broader educational literature is also critical. The MBNQA framework, while not a new concept, has not received special attention as a practical solution to defining the operations of a CU. Chapter 1 has presented the background for this study, specific problems, and the significance of these problems. Additionally, this chapter concluded with a review of some of the definitions, limitations, and delimitations of the study. In Chapter 2, I will explore the foundational CU literature and TQM/MBNQA literature that provides the basis for these hypotheses including the selection of the MBNQA categories for testing in the CU context.

Chapter 3 will frame the approach for studying these variables. It will also highlight key analysis expected. The anticipated methods for capturing the data and statistical analyses will be described in this chapter as well. They will also be rooted in the base set of empirical literature testing this model. Chapter 4 will describe the analysis and Chapter 5 will cover the key findings.

CHAPTER II: LITERATURE REVIEW

The goal of this study is to understand the key management practices which will create success in the CU environment. Management practices will be brought to life via the MBNQA categories. This study is rooted in open questions in the literature that ask for the next frontier of CU research to be framed on how the CU operates (Lui Abel & Li, 2012; Rademakers M. F., 2014). The MBNQA framework was selected as the model for inquiry in the CU environment as it accurately represents TQM (Curkovic, Melnyk, Calantone, & Handfield, 2000). TQM is a well-respected lens and CU experts believe it could be critical to running a successful CU (Campbell & Dealtry, 2003). This chapter highlights the literature for insight. As this topic cuts across the fields of human resources, education, and business management, I have structured this literature review in a way to represent this interdisciplinary approach.

Part one of the literature review focus on the CU phenomenon and literature to date. I provide global insights into key themes and direction of study and orienting the reader to current thought. Part one is divided into three key areas including (a) CU history and definition, (b) CU research areas, and (c) CU research gaps.

Part two of the literature review will shift to management literature. The intent of this section is to highlight the benefits of bringing an existing operating framework (MBNQA) to study the CU phenomenon gaps. In part two I will focus on (a) Management Practices through the lens of TQM, and (b) Validity of the TQM model and MBNQA framework across industries.

Part three of this chapter will take a combined look at the learning, talent development, and CU environment through the lens of the MBNQA. Emphasis will be placed on clearly tying together CU literature gaps and the set of management literature. In part three I will apply the CU case narratives as exemplars of MBNQA components. Application of these exemplars will

culminate in the selection and exclusions of the most important variables for testing, including a theoretical model.

CU Literature

This section of the literature review is part one and covers the CU phenomenon writ large. During its rapid growth, CU experts have struggled to keep pace with changes in the environment. I will cover the phenomenon and ambiguity of definition. I will select a definition for use in this study and describe its implication. I will then review key literature to bring to life examples for current literature. This will reveal gaps which can be addressed via the proposed research study.

CU History and Definition

Experts have struggled in conceptualizing and defining a CU since Jean Meister's seminal and disruptive text, *Corporate Universities: Lessons in Building a World Class Workforce* (1998). In that text, Jean Meister, challenged the establishment in higher education with some key facts related to the changing elements of the workplace. Specifically, Meister calls attention to the rapid proliferation of technology and the altered shelf life of knowledge, skill demands, and workplace education. These advances have forced organizations to be more responsible for the development of their people. This responsibility, according to Meister, results in creating a meaningful development experience at work as a part of the full employment proposition.

While disruptive to the nature of traditional education, trends in corporate education spending corroborate Meister's statement and show increased concern and investment in employee development. In 1998 corporate education spending was cited as being approximately

10% of the education spent for the United States (Meister, 1998), or $62 billion annually. In 2013, estimates placed the US education market at $1.4 trillion (Cavanagh, 2013). That $1.4 represents an approximate 100% growth over an 18-year period since Meister's initial text. Global Silicon Valley Advisors estimates the new corporate expenditures on learning to be at $175 billion in 2017 (Education Sector Factbook, 2012). That rate of growth makes the corporate education segment the fastest growing segment of the education industry.

Undoubtedly, this spending led to a rapid expansion of the CU over the last two and a half decades. Researchers estimate that the total population size of CU entities range from 4,000 within the United States to 10,000 globally (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). Many of the most well-known companies have invested in pulling together a CU including companies such as Disney, Shell, Deloitte, Ikea, (Rademakers M. F., 2014) Toyota, and Motorola (Allen M. , Introduction, 2002). While the response has proved beneficial for those involved in CU environments, those researching the trend have been unable to keep up with the growth.

The rapid growth of CUs has presented a challenge regarding defining the CU paradigm. CUs can be difficult to define because of their similarities and attachment to legacy training functions. Experts agree that CUs do not just offer "training" but can provide various additional services in support of the organizational goals and behavioral change (Allen M. , 2002). Yet, the rapid expansion describe indicates that many organizations slapped CU labels to their training departments to keep on trend.

While ideally, academics would have a clear definition of the phenomenon and trend, the rapid expansion of the concept has left numerous definitions for exploration. Table 2 presents a

list of major definitions from the most reputable CU literature. These definitions are broad and offer a lot of latitude how the construct of CU is constructed.

Table 2 – CU List of Definitions

Definition	Source
"The strategic umbrella for developing and educating employees, customers, and suppliers in order to meet an organization's business strategies."	J.C. Meister (1998)
"A function or department that is strategically oriented toward integrating the development of people as individuals with their performance as a team and ultimately as an entire organization: by linking with suppliers, by conducting wide ranging research, by facilitating the delivery of content, and by leading the effort to build a superior leadership team."	K. Wheeler (1998)
"An overarching designation for formal learning and knowledge creation activities and processes in an organization."	J. Walton (1999)
"An overarching entity that is a strategic tool designed to assist its parent organization in achieving its mission by conducting activities that cultivate individual and organizational learning, knowledge, and wisdom."	M. Allen (2002)
"Any educational entity existing outside academia: a companion to the concept of life-long learning, the corporate university enables businesses, both for-profit and not for profit to maintain and expand the expertise of their workforces and as a result to secure their positions in the marketplace."	K.E. Gould (2005)

These broad definitions can at least be attributed in part to the nature of inquiry for CU. To date, researchers and practitioners have used a predominantly constructionist approach, likely due to the rapid proliferation of the concept. This means that most of the CU literature takes the form of qualitative inquiry and focuses specifically on Narrative Research, Case Study, or Phenomenology (Paton, Peters, Storey, & Taylor, 2005). Literature, if not narrative, often

appears in the form of handbooks and workbooks, they are intended to be broad, with specific needs tailored to organizations they serve (Grenzer, 2006; Lui Abel & Li, 2012; Paton, Peters, Storey, & Taylor, Preface, 2005; Rademakers M. F., 2014). While this method of study provides deep insight into fascinating cases it has not helped to craft the singular meaning of the CU.

To make this study as focused and relevant as possible, selecting a definition for study is critical. Some key themes emerge in the definition including a presentation of "services" (education, knowledge creation), audiences (leadership team, employees, suppliers) and linkages to the business (strategic tool, business strategies). This definition is critical for the study as it provides the context through which I need to identify participants in the study.

The best fit for this study is Mark Allen's definition of a CU, listed in Table 2. I have selected this definition for three primary reasons. First, his definition clearly links the purpose of the CU and the purpose of the organization, which is the achievement of the mission. This creates a clear alignment between goals with careful consideration and planning. Second, Allen defines the intent of CU as one of strategic value. While those words may be implied in other definitions, the very nature of being a strategic tool requires tradeoffs and key decisions for an organization, including investment in time and energy. That requires an organization to make this approach an intentional one and then make further choices in the services offered. Third, Allen offers a broader set of potential activities including knowledge, learning and wisdom at the individual and organizational level. This pushes the boundary on organizations to expand beyond training. It is worth noting that this also encompasses other elements of traditional human resources activities including performance and talent management, talent development, leadership development, knowledge management, and orientation as key functions within the

CU. While the name of CU can bring these functions together, it can be done under other names, but it is important to recognize the construct in advancing the organization.

Using Mark Allen's definition for this study provides broader latitude in scope to include CU like functions. It offers the opportunity to find organization with or without a CU label attached. It also offers the ability to exclude non-strategic functions, that are focused solely on technical training.

Having selected the best definition for this study, the next step is to define the main areas of CU literature to provide perspective and bring to life the CU context. The subsequent section will enliven the definition by reviewing the literature through the CU definition. This provides a better glimpse into what CUs are and do.

Main CU Literature Areas

In this section, my goal is to bring to life definition of the CU by framing the strategic areas of discourse to date: *typology*, *purpose*, and *setting*. Literature focused on *typology* references the services that are offered to the organization. This focuses on "what" a CU typically offers and provides specific examples of "activities that cultivate individual and organizational learning, knowledge, and wisdom." A second theme of literature emerges which focuses on the *purpose* for CU operations or "why" these services are offered. These link CU purpose and existence to organizational goals and clarify how the CU is positioned as a "strategic tool" for the organization. Lastly, a set of literature has blossomed focusing on challenges or barriers to products, services, and purpose by *setting*. These specifically look at "where" these services occur including industry, geography, and types of business. These help to

clarify unique challenges that CUs may face in helping a parent organization in "achieving its mission" I will now review these areas with exemplar narratives.

CU Typology

CU literature that is classified as focused on typology deals with the programs and services that are offered. More simply put, they provide a list of "what" the CUs may offer. This type of literature is particularly interesting and helpful for learning leaders that are focused on benchmarking or understanding what type of work is done to address key challenges. Sample stories in this literature cut across geographic settings and industries.

There are three examples worth sharing that serve as the best exemplars of this approach. One example clearly defines a classification system for how to think about the types of work being completed within a learning, talent development, or CU function. It includes a list of activities such as initiative driven education programs, leadership development, change management, business development, or competency focused career development (Fulmer, 2002). A second exemplar divides CUs into categories like Training Center, Executive Breeding Ground, Cultural Melting Pot, Quality Center, Center for Research & Development, with additional detail that gives a sense of what is offered based on this category (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). A third example focuses on aligning three types of function "university, academy, college" with the type of strategy in play within the organization. This creates a classification system of CUs that can be leveraged to find, change, or execute on strategy (Rademakers M. F., 2014).

Literature that takes a strategic frame like this is typically supplemented by authors who highlight a specific exemplar of activity in the form of a narrative story for at least one "type" of

the presented framework. For example, knowledge and wisdom management (Allen M. W., 2007) is typically included in a broader text of typology, for example within the Quality Center Type CU (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). Allen highlights the success of Caterpillar University at solving problems by creating connected groups (Allen M. W., 2007). Allen highlights in narrative form, real problems faced and how the groups at Caterpillar solved this problem. Rademakers (2014) follows suit utilizing multiple case examples to describe how organizations as large as Deloitte, Mars, and Canon each harnessed their CU to address the strategic needs of the organization. These descriptions leave little question about the products, services, and functions and provide insight into a conceptualization of what is offered.

These typology-oriented articles provide insight into characteristics of value-added CU services provided to the organization. For example, in organizations that have a distributed workforce key practices could include elements of networked learning and communities of practice as a means to foster belonging, commitment, and relationships (Bentley, 2005; Hall, 2002; Jackson, 2005; Schaffer & Smith, 2005). Other authors reference measurement as a critical component of success across CU type no matter the focus (Barney, 2002; Paton, 2005). This classification system has helped with benchmarking and sharing what CUs deliver across learning leaders.

When authors reference these approaches, they very rarely articulate the management practices identified to get to this solution. For example, authors never explicitly state how they decided that creating a mentoring program was the right approach versus pursuing a knowledge sharing infrastructure (i.e. by customer feedback, governance committee or singular action by a learning leader). It is this type of activity missing from literature that is critical and will build a strong knowledge base for practitioners.

CU Purpose in the Organization

The second thread of CU literature has been focused on stories which connect the purpose of the organization to align to the organization's need. This thread of literature focuses primarily on "why" the CU exists. Unlike traditional higher education institutions that continue to debate the purpose of the institution (Sellingo, 2015), CUs have a clearly defined role and are inherently pragmatic to the parent organization and its overall mission and goals (Allen M. , 2002). This section focuses on the role and purpose of the CU within the organization.

Literature around CU purpose relates to engaging and retaining a workforce with a focus on providing content, context, and competencies (Meister, 1998). While the CU may have a type of "leadership development center" or "training center" as described in the previous typology section, this thread emphasizes a connection between the "what" and the "why." In some cases, it is as simple as engaging the workforce or as a tool to retain staff from leaving for competitors.

Deloitte University (DU) serves as a good exemplar of this strategic approach to "why". DU was designed symbolically as a means through which to "win the war for talent" (Pelster, Schwartz, Rizzo, Valenzuela, & Van der Vyer, 2013). DU has standardized their learning with a focus on leadership development, case studies, and leveraging leaders as teachers. Given the ongoing conversation about the nature of the Millennial workforce CUs have been formed as a means to attract and retain the generation and to become a primary driver of retention as "accelerated development opportunities" (Sterling, 2015). As a selling point, DU hosts all new hires in their onsite CU campus hotel for orientation in Westlake to showcase a community feel, even when they are geographically disparate. This experience and the design of their approach is strategically linked into their purpose for existence.

If not fighting for talent, other CU organizations are expected to serve as generators of top and bottom-line results by spreading brand notoriety for the parent company, adding additional revenue streams, and serving as accredited academic institutions. These organizations grow out of opportunity and business need. Arthur D. Little School of management is an example of one of these unique CUs. Originally intended to serve as a training and executive development resource for clients, the CU grew to the point that it partnered with a local school of higher education (Boston College), the Massachusetts state government, and the public to offer degrees in which the firm's employees are enrolled side by side with students attending BC courses (Meister, 1998). While unusual to go to this extent, the revenue generated for the firm helped build bottom line business and Arthur D. Little gained a tremendous amount of access to top notch students pursuing management skills. However, making this type of leap is not easy. Northrup Aviation created Northrup University in the 1940s to maintain the critical need of aviation workers for the parent organization (Allen M. , 2002). This approach can be dangerous by overextending the capabilities and while Northrup eventually offered MBAs and Law degrees, they were forced to shut down in 1990s as competition with traditional education institutions proved costly to the parent organization.

Other institutions have found ways to generate revenue without specifically needing to grant degrees. Disney is perhaps the most prevalent at doing so. Utilizing their background and understanding of their own customers and the firm helped to create a positive experience. The Disney Institute, the professional development arm of the Walt Disney Company has turned in a revenue generating consulting firm working with companies from Chevrolet, to United Airlines and Haagen-Dazs and even with school districts to help companies home in on customer service and consumer focus while expanding the notoriety of the Disney brand (Frizzel, 2015). While

figures are not known for the institute's costs, they are typically in the thousands of dollars per day and hundreds of thousands for intensive onsite work. The Disney Institute can deliver internal development for internal customers and pivot externally to consult and determine how to improve service and experience in an external organization. Disney is not alone in its pursuit of external focus through a CU to develop revenue. The Ritz Carlton has its own Leadership Center to help drive innovation and change (Bell, 2013) and it also sells services externally. General Electric has also utilized its CU to develop leadership across industries providing leadership talent the opportunity to experience Crotonville, NY, GE's renowned CU headquarters, while focusing on generating revenue and building communities.

This set of literature has focused on the "purpose" of the CU. It often explains now just a set of services (typology) but illuminates the broader extent and connection to value in the organization. Purposes explored can range from an engaged workforce to brand notoriety. Whatever, the purpose, this set of literature helps connect the strategic components of existence to the product offered within and external to the parent organization. Yet, notably absent from the body of literature were "how" the purpose and offerings were identified and continued to improve.

CU Setting

Finally, a third important thread of CU literature can be categorized into stories which focus on unique settings of a specific CU, or "where" the CU exists. Within this emphasis on setting, there are two primary components of literature: geography and industry. These types of articles frame up the setting as key context clues into challenges in delivering service to advance the mission of the parent organization.

Literature that is geographically focused emphasizes the unique cultural and regulatory environments of a location. Literature that is industry-focused highlights the unique challenges in an organization's regulatory environment or the unique adaptations of roles or requirements in the industry. This type of examination enables a more tailored look at ways in which a CU helps achieve key mission-driven activities or activity delivery with industry or geography as the main backdrop. It can also lead to unique combinations of "what" is provided and "why" it is provided.

Numerous articles have been written with a focus on the geographic context and the impact on the CU. Specifically, this emphasis has generated literature on the unique aspects of CUs in Europe (Renaud-Coulon, 2002), China (Qiao, 2009), Brazil (Porto & Berge, 2008), Germany (Andresen & Lichtenberger, 2007), and Indonesia (Anggara & Febriansyah, 2018). These types of studies help to shine a light on a unique challenge that may affect an organization and by that very nature, a CU. One example is the highly regulated distance education in Brazil and the impact on corporate training (Porto & Berge, 2008). This frame on Brazil highlights the unique regulatory environment for the internet. CU implications include limited modality of delivery, virtual sessions, and requiring different deployment models in other countries. It also foreshadows key issues the company may face in the regulatory environment online. Other examples include the Singaporean government's large role in kick-starting development opportunities which encourage organizations to act (Dickson, 2002), potentially positioning more entrepreneurial mindsets for leaders. In Germany, due to the highly skilled and vocational nature of the education system, CUs are primarily focused on a small set of management-level employees (Andresen & Lichtenberger, 2007). This has implications for close relationships between government and industry and requires better coordination between the two. This

attention on unique countries allows for a better understanding of the challenges that can be faced in different settings, ultimately helping determine the products, services, and purpose which align to advance the organization.

A second component of literature within the CU setting focuses on the impact of the industry's unique challenges. These challenges can be culturally based (Bruny, 2007; Gould, 2005; Taylor & Fryer, 2005) and literature showcases the successes and challenges faced in that environment. Two exemplar case studies highlighting the overall themes of this literature will be covered. The first is the National Health Service (NHS) in the United Kingdom. The challenges of succeeding in a large-scale government organization were ambitious and lofty with National Health System University (Taylor & Fryer, 2005). The organization ran into challenges when the political nature of a government-run institution bumped into the government's higher education sector. Authors indicate failure due to the sensitivities of "symbolism, management and governance practices and structure of traditional universities" (Taylor, Bell, Grugulis, Storey, & Taylor, 2010, p. 87). This highlights the complexity and power dynamics of operating in a government environment. The British government runs both the education system and National Health System. Creating the NHSU using symbolism of the traditional academic setting created political disruption that was hard to overcome. This has served as a cautionary tale for Learning Leaders who are entering a highly regulatory government run environment which is attempting to disrupt itself. The general culture and disruption without the proper leadership prevented its acceptance and adoption. In other government and human services industries, these types of institutions have demonstrated success. Bruny (2007) highlights the successes of a CU in the government context as the CU in Chesterfield grew out of a TQM initiative and was spawned by a set of leaders looking to advance the organization. Gould (2005) highlights the success of the

May Institute and the creation and support of its success as aligned to the first step it took, which was to “study the agencies business plan” (p. 515).

Like previous sections, this focus on “where” services are provided can give context to “what” and “why” a CU operates but does not get into key practices or “how” a CU operates. This gap in “how” remains a key area requiring focus. This gap is highlighted and discussed in the next section.

CU Research Gaps

Academic inquiry approaches within the CU environment has been a bottom-up. This has led to various approaches for CU start-ups, successes, and failures (Allen M. , 2002; Paton, Peters, Storey, & Taylor, 2005). Yet, two decades later we still have a set of case studies, narratives, and descriptions of lived experiences rather than more empirically focused works that can frame effective practices within the phenomenon. Missing this focal area with the rapid proliferation of the CU concept limits learning leader abilities to demonstrate return on investment and prioritize the right actions for success.

Creating a thread of CU operations literature has been called out as a valuable pursuit. For nearly two decades, researchers have suggested that successful management of learning and knowledge within an organization reflect a key strategic advantage (Dealtry, 2001; Holland & Pyman, 2006). In more recent times, calls for research have escalated due to the growth and continued expenditures by organizations on the CU construct. Lui and Li (2012) initiated the process of empirical research by creating a formal survey to pull together a more empirical examination of CU components that typify a CU. Their survey examined far beyond the limitations of a single or multiple narrative case methodology that is prevalent in the literature,

and instead captured more than 1,100 individuals' insights across large and small CUs. While these researchers were able to create a framework for understanding the CU and its processes, it still left the question of CU operations. Further calls have been extended to focus on a CU's systems and processes (Rademakers M. F., 2014).

In spite of the benefits of this line of research, I have been able to find only one article that references a potential framework for validating management practices to the operations of a CU. Buried in a line of text nearly two decades ago, Campbell and Dealtry (2003) describe the CU as being led by individuals who "undertake a major business intelligence based role" (p. 379) and are constantly "understanding and interpreting all the current internal and external factors affecting both the organisation's performance and the competitive environment of the business" (p. 379). For these reasons, the authors recommend the principles of Total Quality Management (TQM) as a foundational factor for CU management. They suggest this due to the ever-evolving environment of a CU. In their mind it is one of continuous improvement and adjustment.

The good news is that TQM is a well-researched and validated framework for managing "how" an organization operates. The principles have been adopted worldwide and as a result, are adaptable to the CU as well as purpose driven approaches. Most importantly, they are flexible to adapt to industry, cultural norms, and various other organizational and industry differentiators. As a lens through which to CU operations, TQM can now be explored as a framework for study within the CU.

Management Literature

Closing the gap on CU operations requires a focus on the management of the CU as an organization. This is a shift from evaluating and describing components of the definition such as what, why, and where a CU operates. Instead it focuses on how it can achieve results. To address

this question, we must stretch beyond typical CU literature and move into a review of management practices. This section will focus on advancing this concept.

Management Practices through TQM Lens

Management science "borrows ideas and concepts from different social science disciplines…[and] there is no unified system of borrowing and synthesis…" (Storchevoi, 2015, p. 2). It further has unique branches that operate independently (general management, strategic management, production management, human capital management…) (Storchevoi, 2015). These branches are often focused on unique elements or systems within an organization. TQM as emphasized by Campbell and Dealtry in the CU environment (2003) considers these elements of business management in a systems-thinking model. This allows for a key understanding of how operations work together to drive outcomes.

TQM as a management approach has actively evolved over the past 30 years and its adoption as a management philosophy has been heavily influenced by the Japanese turnaround post WWII (Dahlgaard-Park, 2011). As a management philosophy TQM requires three key principles: customer satisfaction, continuous improvements in quality, and employee involvement in problem solving (Kanji, 1990). These key principles have manifested as management models that are in routine practice today.

One of the most prolific management models in the United States is the Malcolm Baldrige National Quality Award (MBNQA). Rooted in principles of TQM (Curkovic, Melnyk, Calantone, & Handfield, 2000), this award was created in 1987 to encourage a focus on quality and enhance competition of the U.S. manufacturing industry. The National Institute for Science and Technology (NIST) routinely updates the framework based on their own learning and trains

evaluators to look for information on each category. To win the national award, a company must win a state quality award and then apply with a written application describing how their organization works through the elements of the MBNQA framework. Trained evaluators make site visits and review materials and talk to employees to determine how well integrated the elements of the MBNQA are into the operations. Rather than prescription, the award asks key process questions allowing organizations to describe their practices in their own unique way based upon their strengths and operations.

The MBNQA Framework

The MBNQA framework is based on a system thinking mindset. Figure 1 visually represents the MBNQA framework as a set of related elements. The research question for this study "To what degree do the MBNQA categories predict success in the CU environment?" requires finding the relationship between the process categories (e.g. Leadership, Strategy, Customer Focus, Workforce Operations, and Measurement, Analysis and Knowledge Management) and the Results category.

Figure 1: The 2019-2020 Malcolm Baldrige National Quality Award Framework

This type of study is not new. The connections between these MBNQA elements have been tested in multiple industries including Manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), Health Care (Meyer & Collier, 2001; Schulingkamp & Latham, 2015), Municipal Government (Prybutok, Zhang, & Peak, 2011; Peng & Prybutok, 2015) and Education (Abdulla Badri, et al., 2006; Winn & Cameron, 1998). Results demonstrate a variety of results which will be described subsequently. Before diving into those results, I will provide an orientation to the framework. The framework is typically thought of in three categories, the leadership triad, results triad, and system foundation and encompass each of the six process categories and results category.

Leadership Triad

The Leadership Triad includes the process focused categories of leadership, strategy, and customer focus categories. These categories place an emphasis on how an organization's leadership manages an organization based on key customer input. Key to this section is that leadership is seen as the driver of the system. I will highlight the elements of each category below. This will help frame the hypotheses and theoretical model moving forward.

Leadership Category

Leadership is considered a process category. It focuses on the members of senior leadership and the organization's responsibilities. There are two key questions that are covered including "how do your senior leaders lead?" and "how do you govern and fulfill your societal responsibilities?" (National Institute for Standards and Technology, 2016) . The first question focuses on the mission, values, vision, and how leaders communicate organizational performance. The second question focuses on the governance system, legal and ethical behavior,

as well as how the organization supports key communities. These questions focus on elements which facilitate an organizational culture and relationship with the community and establish a foundation for how other elements are connected.

Strategic Planning Category

Strategic Planning is a process category. It is referred to throughout this dissertation as "strategy" and focuses on planning for the longer term. This includes action plans and implementation against those action plans. This category asks two straight forward questions including "how do you develop your strategy" and "how do you implement your strategy?" (National Institute for Standards and Technology, 2016). The first question focuses on the approach for developing the strategy including the process, understanding core competencies of the organizations, and strategic objectives. The second question focuses on action plan development and deployment as well as expected performance moving forward. Success in this category requires successful integration of various elements since strategy implies change and that focus requires a full leadership team effort.

Customer Focus Category

Customer focus is considered a process category. Processes for customer focus requires that an organization focuses on long term success including listening to the needs of the customers, strengthening these relationships, and using customer data to drive new products, services, or other customer focused innovations. This section asks two straight forward questions including "how do you obtain information from your customers?" and "how do you serve customers' needs to engage them and build relationships?" (National Institute for Standards and Technology, 2016). The first question requires describing how organizations listen to their

customers (current or future) and determine ways in which satisfaction and engagement are measured. The approach to measurement should provide comparison to others. The second question requires understanding the product offerings, customer support, customer segmentation, and a focus on understanding how relationships and complaints are managed. Together, these put a strong focus on managing customer interactions and driving success through the eyes of the customer.

Results Triad

The results categories include process categories of workforce and operations, as well as the overall results category. These categories describe how an organization engages the workforce, key operational processes, and utilizes the overarching results that they yield. The results are the demonstration of the work that is completed.

Workforce Focus Category

Workforce focus is a process category. This category focuses on the development, workforce planning, and engagement and overall environment set by leaders. Two key questions are included in this category. They include “How do you build an effective and supportive workforce environment” and “How do you engage your workforce to achieve organizational and personal success?” (National Institute for Standards and Technology, 2016). Key areas of focus include ongoing needs assessments for skills, change management, workforce environment and benefits within the work environment. Engagement, culture, performance management, learning and development as well as career progression take precedence as they relate to organizational and personal success. Together these ensure the workforce has what it needs to be successful.

Operations Focus Category

Operations Focus is a process category. It focuses on the key products and processes to ensure effective delivery of those products, including sustainability. The two key questions to answer in this section include "how do you design, manage, and improve your key products and work processes?" and "how do you ensure effective management of your operations on an ongoing basis for the future?" (National Institute for Standards and Technology, 2016). The first question focuses on the process for designing new products, setting requirements on new products, as well as managing the processes. The second question focuses on areas such as managing costs, supply chain, safety, and preparedness, as well as innovation. This category emphasizes the work to get done and the process for doing so.

Results/Outcomes Category

The results category is considered an outcome category. The National Institute for Standards and Technology places a strong weight on the outcomes as they are indicators of the success of key process measures. Because of that, the data presented in this final category represent a significant amount of the total award and they require sharing outcomes from each of the previous six categories. Beyond just one-time results, the data are requested to ensure levels, and trending with a focus on the immediate as well a history of trending results. Data that can show comparisons to benchmark data against other organizations help to make the case that an organization is high performing.

Key to data and their presentation for MBNQA are also the way that they emphasize what an organization has stated is important to it. An organization has leeway to define its measures and they should relate back to how it has described itself in prior categories.

System Foundation

The system foundation is comprised of Measurement, Analysis, and Knowledge Management. While only a single category, it is critical to the success of the framework. This category emphasizes access to data and information that helps to make critical decisions on categories which can influence the work to be done. It provides the foundation for an integrated system model covering how data are gathered, analyzed, and retained.

Measurement, Analysis, & Knowledge Management Category

Measurement, Analysis, and Knowledge Management (MAKM) is intended to drive processes that "store, analyze, and retrieve information and data critical to the effective management of the organization and a fact-based system for improving organization performance and competitiveness" (Blazey, 2013, p. 64). The framework drives having access to information and data to address data driven decision making and management of the organization.

MAKM requires that two key questions to be answered including "how do you measure, analyze, and improve organizational performance" and "how do you manage your organizational knowledge assets, information, and information technology?" (National Institute for Standards and Technology, 2016). The first question creates a focus on performance measurement, analysis, and review. It also calls into question how performance is improved continuously. The second question drives responses which focus on knowledge management, organizational learning, and data, information, and IT. These categories are critical for making sure the organization has infrastructure to ensure knowledge management as well as data that enable people to perform their work better.

A Reliable Framework for Driving Outcomes

The power of the MBNQA framework is not in the description of the category, but "how" an organization has chosen to do something. The questions written for each section are broad allowing an organization to define its own processes and approaches. The approach that an organization uses reflects unique organizational culture and values. Each category has a set of key work processes which are used to describe how they achieve a specific outcome. Each of these categories is intended to have an influence on the outcomes of the organization's intended target (Blazey, 2013). The most effective organizations recognize these are interrelated and use them to drive performance. If a process is not working, it can be adjusted but will have an impact on the entire system.

In Table 3, I provide an example of how an MBNQA element connects between category, item, and key areas to address. The important aspect of this example is that it ends with a set of criteria questions that must be described. In the example provided, the strategic planning category has an item focused on strategy development. Within this category there are processes and key areas to address. During the actual award process, answers must describe process, the steps, and individuals involved. The open-ended questions allow an organization to "foster incremental and major (breakthrough) improvements, which may lead to innovation" (Blazey, 2013, p. 66). As Learning Leaders the need for questions like this in the management of CU processes is critical.

Table 3: MBNQA Sample Alignment Between Category & Criteria Questions

Framework	Category	Item	Area to Address	Criteria Questions
Driver Triad	Strategy	Strategy Development	Strategic Planning Process	How does your organization conduct its strategic planning? What are the key process steps? Who are the key participants? How does your process identify blind spots?

This example demonstrates the nature of the MBNQA questions. They are broad and open ended. These guiding questions from the MBNQA framework help leaders think through processes and gaps that will help improve performance. A key thread of empirical research has examined application of this MBNQA framework within manufacturing, health care, government, and education. To do this the researchers converted the items and criteria question into survey instruments, surveyed a population and evaluated the results. To summarize the critical studies, I have included a table which highlights key results across the literature. This is included as Table 4 on the following page. I will describe the key results from these studies with the goal of combining these results with CU exemplars to create a framework for success in the CU.

Table 4: MBNQA Empirical Research[1]

	Manufacturing		Health Care	Government	Education
Category Relationship	Wilson & Collier (2000)	Flynn & Saladin (2001)	Meyer & Collier (2001)	Peng & Prybutok (2015)	Abdulla et al (2006)
Leadership & Strategic Planning	.30a*	.38**	.47**	.85**	.60**
Leadership & Customer Focus	NS	.24**	NS	.21**	.22*
Leadership & MAKM	.73**	.62**	.78**	NS	.75**
Leadership & Workforce Focus	.38**	NT	.38**	.40**	.62**
Leadership & Operations Focus	.23*	NT	.36**	NS	.67**
Leadership & Results	NS	.30**	.43**	.15*	.54**
Strategic Planning & Customer Focus	NS	NS	NS	.69**	.58**
Strategic Planning & MAKM	.56**	.33**	.46**	.51**	NT
Strategic Planning & Workforce Focus	.33**	.21**	NT	NS	.33**
Strategic Planning & Operations Focus	NT	NT	NT	NS	.32**
Strategic Planning & Results	NS	NT	NS	NS	.25*
Customer Focus & MAKM	.27**	.36**	NS	.37**	NT
Customer Focus & Workforce Focus	NS	NT	.26*	NS	NT
Customer Focus & Operations Focus	.46**	.25**	.77**	.22*	NT
Customer Focus & Results	NS	NT	.30**	NS	NT
MAKM & Workforce Focus	.19**	.53**	.55**	NS	.43**
MAKM & Operations Focus	.16*	.48**	.61**	.30**	.42**
MAKM & Results	.25*	NS	.52*	NS	.70**
Workforce Focus & Operations Focus	.43**	.22**	NT	.50**	.62**
Workforce Focus & Results	NS	NS	NS	.53**	.27*
Operations Focus & Results	.19*	.24**	NS	.29**	.26*

a = Standardized Path Coefficient *Significant that .05 level **Significant at the .01 level NS= Not Significant NT = Not Tested

[1] Adapted from: Peng, X., & Prybutok, V. (2015). Relative Effectiveness of the Malcolm Baldrige National Quality Award Categories. *International Journal of Production Research, 53*(2), 629-647. doi:10.1080/00207543.2014.96120)

Manufacturing

In manufacturing, numerous studies have taken place to demonstrate that MBNQA winners have a leg up on the competition. MBNQA winners listed on the S&P 500 and the Dow Jones Industrial Average demonstrated better success than peers (Helton, 1995; National Institute of Standards and Technology, 2001). Financial performance was also determined to have improved across five winning MBNQA manufacturing companies (Sunny Fresh Foods, Bama Company, Medrad, Inc., Motorola, Clark American Checks) and concluded that that adopting the framework led to increased financial performance leading up to the award and after the award as well as extended into customer satisfaction, employee productivity and increased market share (Cazzell & Ulmer, 2009). The MBNQA clearly demonstrated value in this context.

This data also extended into the lone financial institution that won the MBNQA as of 2008. Researchers from the Federal Reserve Bank of Dallas and Sam Houston State University examined in detail the case of Los Alamos National Bank (Perschel & Ahmed, 2008). Their data provided far better outcomes than the typical financial institutions. Like in general industry performance proved significant. Their findings include a 25% higher customer satisfaction with service, an increase in net income by over 60% and employee satisfaction at superior level to competitors. This led researchers to suggest pursuing the MBNQA in times of uncertainty were never more “relevant or compelling” (Perschel & Ahmed, 2008, p. 63).

Two studies, conducted in the early 2000’s, examined causality and linkages between the results and the categories of the MBNQA. Using structural equation modeling Wilson and Collier (2000) were able to derive the following results: (1) the leadership category influences the system and drives results; (2) leadership is the most important category; (3) leadership influences other elements of the system which drive results but by itself does not have a direct

impact on results; (4) information and analysis is statistically the second most important Baldrige Category due to impact on all other categories; and (5) process management is a better predictor of customer satisfaction than financial results. These results provide a focus for leadership on driving improvement of outcomes through targeted efforts.

Flynn & Saladin (2001) repeated this effort with an expanded data set which moved from US only data to a broader international context including Italy, Germany, Japan, and England. In this study, they also sought to validate the history of the model over three versions (1988, 1995, 1997). The study demonstrated that "the Baldrige frameworks all include robust relationships" (Flynn & Saladin, 2001, p. 641). Furthermore, they were able to validate findings that the model holds three critical drivers of success: leadership, process management, and information and analysis (now Measurement, Analysis and Knowledge Management).

Health Care

Within the health care industry performance is critical and can often mean life or death. Noting the significance of context, in 1995 the National Institute for Science and Technology modified the traditional MBNQA criteria by creating a version with targeted language in healthcare. Recent research within the acute care setting indicates that MBNQA winners have patient experience that surpass peers as well as outcomes that meet or exceed their peers (Schulingkamp & Latham, 2015). Findings also extend into the nursing and assisted living facilities. Researchers identify that winners of the AHCA/NCAL, a program with a framework built upon the Baldrige framework "perform at a higher level of quality of residents and sustain that heightened performance over a period of time" (Castle, Olson, Shah, & Hansen, 2018, p. 1368). This highlights the benefits of MBNQA as a framework for management.

This should not come as a surprise. The inception of the health care framework led researchers to validate its effectiveness within the new context. Through structural equation modeling and using existing public data, Meyer and Collier (2001) were able to show that MBNQA winners outperformed peers on risk-adjusted mortality index, risk adjusted complications index, patient safety index, CMS core measure scores, severity-adjusted average length of stay, and adjusted profit margin. This research goes a step further in drawing relationships between the categories of the MBNQA framework within the new health care context. Results in this study verify previous findings that (1) leadership serves as the driver across all non-results categories and (2) workforce and processes categories are better aligned to customer satisfaction. Novel findings indicate a unique health care slant. Leadership is linked to performance results in this environment. This implies that better connection between leadership, governance, and long-range planning help improve care for patients.

Government

Most recently, researchers have placed a focus on validating the MBNQA framework to improve organizational performance within the local government setting. Specifically, researchers identified need to create a "reliable tool for organizational assessment" (Prybutok, Zhang, & Peak, 2011, p. 124) and provide additional context for government effectiveness. In a series of studies, researchers at the University of North Texas have worked with the City of Denton to first establish elements of an assessment, then move that assessment into validation, and lastly to compare government results to other industries using the instrument.

Research began in 2008 when a team applied the MBNQA frame within the e-government space to improve outcomes. Using a subset of the MBNQA framework categories, the team was able to link the leadership triad (leadership, strategic planning, and customer focus)

to improve its IT quality measures, as well as identify a link between the leadership category and IT quality (Prybutok, Zhang, & Ryan, 2008). The benefit of this study was the formation of a valid set of questions as an organizational assessment. Researchers then went a step further to expand the survey and conduct the first structural equation modeling of the MBNQA 2002 framework within the government environment. Now assessing across all seven categories results indicated that "the MBNQA model can guide effective managerial decisions in municipal government" (Prybutok, Zhang, & Peak, 2011, p. 124). Finally, researchers looked at the linkages between the constructs within government and compared that to data discussed in the manufacturing and health care segments. Specifically, the researchers affirmed the previous findings from 2011, as well as the previous research conducted by Meyer & Collier (2001) and Flynn and Saladin (2001). Peng & Prybutok determined that 80% of variance in results was explained by the model expanding the notion that the model works across industries.

Specific findings from the research provide clear insight into further alignment with previous results as well as identify unique aspects of local government. Findings consistent with previous studies in health care and manufacturing are that that leadership has a direct influence on results. Findings are consistent with health care that emphasis on the workforce category impacts results. Within government organizations measurement, analysis, and knowledge management do not play as large of a role, and authors suggest this relates directly to the fact that is has become a set of processes (Peng & Prybutok, 2015). Ultimately, researchers highlight the most pertinent way to drive outcomes in a government environment are through leadership, workforce focus, and operations focus (Peng & Prybutok, 2015). These findings clearly articulate the impact of leadership, as well as unique focus areas based on service industry versus product-based industry.

Education

Lastly, two studies with similar methods were conducted in the education sector. Both looked to empirically validate the MBNQA framework within the higher education sector. Winn and Cameron (1998) started the investigation of the criteria with a focus and determining fit of the model and relationships of the categories. Using a single site, they evaluated the data gathered from an instrument distributed at a single site higher education institute in the Midwest. Goals included creating the instrument and testing the validity of the framework. They validated that that leadership drives the system. However, they failed to identify the model in its proposed format as a perfect fit. Instead, they proposed a unique model.

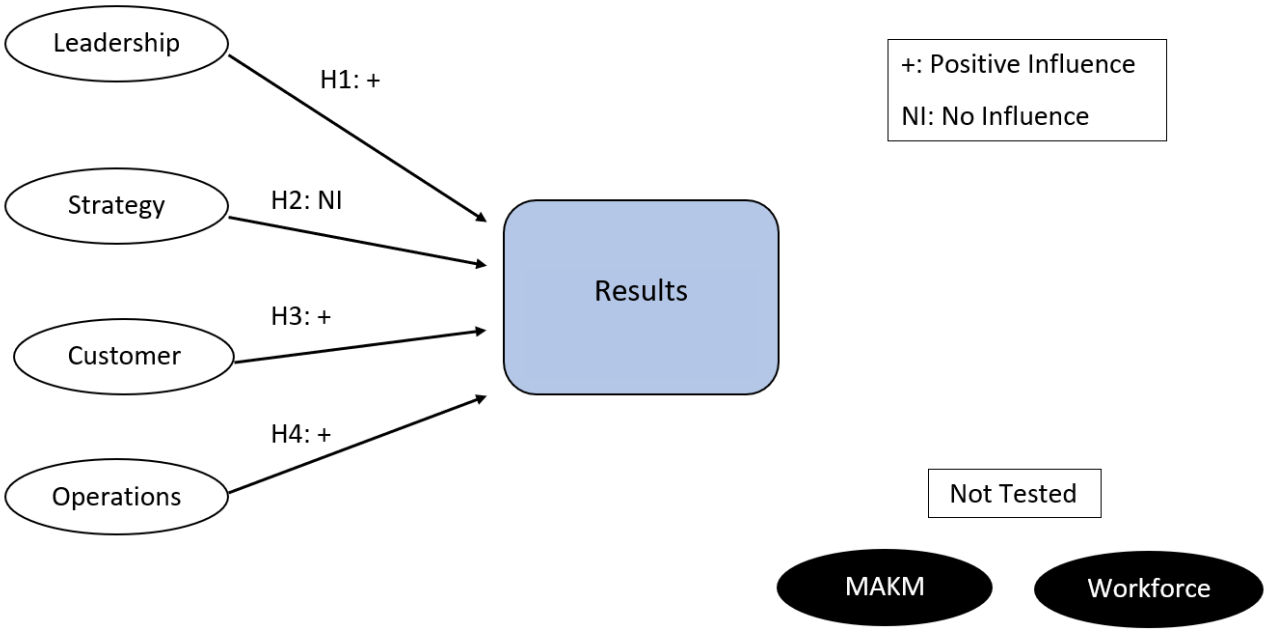
Additional study conducted by Abdullah et. al (2006) placed emphasis on determining the MBNQA in an international context with a focus on helping senior leaders determine how to proceed with improvement. Abdullah et. al (2006) validated the new model proposed by Winn & Cameron (1998) but also determined the MBNQA framework in the education environment held true in its natural format. The validity of the untouched MBNQA framework reinforced leadership as the driver of the system, but also placed emphasis on leadership across all areas connected by data and measurement to help drive results. They were careful to describe limitations of their study as international higher education institutions.

CU Literature and the MBNQA: A Framework

Having reviewed the sample CU literature and Management literature, it is time to address the key question in this dissertation of “To what degree do the MBNQA categories predict success in the CU environment?” This requires combining the mostly qualitative inquiry in the CU body of work and comparing it to findings within the MBNQA literature. In order to

do this, I have gone through a process of (1) reviewing the MBNQA category and its key components; (2) reviewing the MBNQA literature and the relationship between category and results and (3) reviewing exemplars within the CU literature that can help to support this recommendation. The results of this process are included visually as Figure 2 below. Figure 2 includes process tested variables and their predicted relationships. It also includes variables that were excluded from testing.

Figure 2: CU and MBNQA Framework Hypotheses



I will now highlight literature that that has inferred these proposed relationships with results. I will start by examining the three relationships which I hypothesize will have a positive direct impact on results (Leadership, Customer Focus, Operations). I will follow by explaining why I believe Strategy will not have a direct impact on results. Finally, I will describe why I excluded two variables from testing (MAKM and Workforce Focus).

Direct Impact on Results

Leadership. As a process category, leadership places emphasis on two key questions for an organization. They are "how do your senior leaders lead?" and "how do you govern and fulfill your societal responsibilities?" (National Institute for Standards and Technology, 2016). The first question focuses on the mission, values, vision, and how leaders communicate organizational performance. The second question focuses on the governance system, legal and ethical behavior, as well as how the organization supports key communities. This also includes the means through which resources are governed and stewarded within the organization.

External literature demonstrates a direct impact between the actions associated with the Leadership category and results. In all industries in which the MBNQA framework has been tested including Manufacturing (Flynn & Saladin, 2001; Meyer & Collier, 2001), Healthcare (Meyer & Collier, 2001), Government (Peng & Prybutok, 2015), and Education (Abdulla Badri, et al., 2006) a positive relationship has been discovered.

CU exemplars support the belief that Leadership processes will have a positive impact on results. Handbooks for CU success emphasize the nature of Senior Leader Buy-in, and Sponsorship. These are key to addressing how the senior executives choose to lead. Most recommend CU program sponsorship at the senior most level (Grenzer, 2006; Wheeler & Clegg, 2005), with some exemplars taking it a step further and referencing learning program sponsors who may creatively serve as Deans of the CU (Meister, 1998). The entire notion of a CU for the Anglican Water Company was built on an executive stretch assignment program with support from top levels (Matthews, 2005). Senior sponsors reflect that the purpose of the CU function should enable the mission and connect directly to what is trying to be achieved. These narratives

represent the need for senior sponsorship to help prioritize and be engaged with the Learning Leader on the approach for the CU.

The second element of the leadership category relates to the governance. Specifically, the three elements include an accountable governance or advisory board, addressing regulatory requirements, stewardship of resources, opportunities to contribute to the community and partnership with other organizations. Exemplars of literature, cover creating a strategic advisory council in order to drive results (Grenzer, 2006; Meister, 1998; Wheeler & Clegg, 2005). Through the advisory council, the Learning Leader can navigate the intricacies and politics of the organization in order to effectively deliver its services and have key sponsorship at the top while also providing insight into the ongoing role that the CU can provide. Kalman (2008) describes this bidirectional approach for idea exchange and the overall improvement in perception of the CU. While not the only means by which to engage leadership, it is an easy one and an established practice.

Without strong leadership and support for making strategic change, a CU is likely to fail. Numerous examples can be provided where leadership has been required to ensure ongoing improvement to operations including expanding reach and access such as Barclay's University (Taylor, Rogers, & Storey, 2005) or in balancing conceptual strategy with the realities of today such as at Aqua Universitas (Matthews, 2005). One of the better-known failures of a CU was NHSU, the CU for the National Health System in the UK. After establishing the organization in the early 2000s, the leadership received "no evidence on learning needs and service priorities" so the CU leadership team was required to "piece together early requirements" (Storey & Bungartz, 2005, p. 32). On top of this, they operated within a government-run institution, directed by changing politics with a target to disrupt the education sector. Without strong leadership to help

them navigate the political elements of the organization, they were destined to have a tough time advancing their agenda (Taylor, Bell, Grugulis, Storey, & Taylor, 2010).

Customer Focus. Customer Focus as a process category focuses on how an organization engages customers for long-term marketplace success, including listening to the voice of the customer, building customer relationships, and using customer information to improve and to identify opportunities for innovation. Specifically, the category is broken into two very specific elements: listening for satisfaction and dissatisfaction as well as determining and customizing product offerings that serve customers. The aim is to capture meaningful information to exceed customers' expectations.

External literature has proved mixed on this result. The belief that customer focus has a direct impact on results has been validated in the health care service industry (Meyer & Collier, 2001) but was not validated in manufacturing industry (Wilson & Collier, 2000) or government (Peng & Prybutok, 2015). This was not tested in the Education study (Abdulla Badri, et al., 2006). This wide variation in industries should not be unexpected. In manufacturing, the threshold for acceptable goods can be determined far before production, and within the government space, there is limited choice. A government must exist to provide services.

However, a CU finds itself in a very different place than any of these industries. By the very definition of a CU being embedded within an organization for the purpose of achieving its mission, the customer is the organization and its senior leaders. To deliver outstanding results in the CU environment, it is imperative to know, understand, and capture needs such as new solutions, changes in strategic direction and perceptions of services offered. Without it, funding could dry up.

Two cases present a rationale for Customer Focus having a direct impact on Results. The first is in a consulting firm. Booz Allen Hamilton provides a clear example of an organization that delivers on the linkage between people strategy and bottom-line results. In 1998 the organization built a development framework out of a people strategy survey and then reinforced it every two years (George-Leary & Cohen, 2007). The process behind this directly taps into the ongoing listening to customer needs and adjusting based on findings. The results of this ongoing listening process are a development framework helps to establish criteria for development in a role, tools and resources for learning, manager/employee ownership of the development process and ongoing feedback. Most importantly, the framework was established to "align with organizational goals and integrate high value development activities" (George-Leary & Cohen, 2007, p. 36).

A second case of a listening process is Caterpillar University. As a CU, the approach at Caterpillar was very different based upon the needs of the environment. Rather than trying to address unique learning needs and career pathing in the Booz Allen consulting space, the CU focused on trying to connect to people that had key questions about equipment, tools, and processes. The Learning Leader established the Caterpillar Knowledge Network specifically to address the unique needs of the environment which required a connection to people, not an approach to create content (Allen M. W., 2007). In doing so they created a self-guided organization that was able to solve their own problems. Allen describes the effectiveness of these knowledge networks on helping to solve a critical business problem, this case disaster response:

> "Through the knowledge network, all recovery processes were rapidly developed and staffed, alternative sources were identified for 50 part numbers…within ninety days Parsons had the roof back on, and ninety days later it

> was fully operational. A consulting company that supports the project said it was the most rapid disaster recovery their company had experienced." (Allen M. W., 2007, p. 376)

Operations Focus. Operations Focus is a process category emphasizing quality management, production design and management as well as overall operational effectiveness. The first set of criteria on product design, delivery, and innovation are key to ensuring a thriving work environment while the second include key decisions about what to insource and outsource based on the team capabilities.

MBNQA literature reveals that Operations Focus has had a positive impact on results in manufacturing (Wilson & Collier, 2000; Flynn & Saladin, 2001), government, (Peng & Prybutok, 2015) and education (Abdulla Badri, et al., 2006). Healthcare as an industry did not demonstrate significant results (Meyer & Collier, 2001).

To understand this category's relevance, it is important to continue to consider the category through the lens of the CU environment. The first part of the category focuses on process, delivery, and innovation is key to success and impact via effectively and efficiently delivering solutions to the organization. Solutions that are "manufactured" and provided to the organization should have a direct impact on the business results. The second part of the Operations Focus category relates to managing supply chain and cost can directly attributed to the understanding and skill mix of the team. As a strategic tool, and not the primary business, CUs must make tough decisions about what to produce internally with limited resources or distribute externally. For those CUs which are intricately involved in the creation of content the decision of outsourcing is a constant question.

The foremost authorities on CUs believe that strategically, a CU function needs to determine its own capabilities and to deliver against those while leaning heavily on partners to deliver the rest (Allen M. , 2002). While not many case studies focus on how CUs operate in this manner, there are multiple CU handbooks which focused on maximizing resources, processes, and skills of the team through or structure. Grenzer (2006) proposes three models for CU structure including maintaining all functions within house, partially moving them outside, and a full outsourced set of design and delivery functions. Each of these has specific implications for how the CU operates including required overhead versus variable cost. Through the lens of business operations this is a critical decision. Little is known or published about the full scope of learning structures within an organization, but with the growth of economic models of corporate education it is fair to say many have outsourced at least one function within the CU. Wheeler & Clegg (2005) also propose unique staffing models of the CU which align directly with the Grenzer's thoughts. Options include program management which outsources the design and delivery, team development which includes key roles such as team lead/program management, subject matter expertise, e-development expertise and an instructional designer for all key programs and a hybrid of the two. Given the options and staffing, this operations decision is critical for defining success. These will determine how to effectively utilize operations to drive results.

No Impact Variables

Strategy. As a process category, I believe Strategy will have no impact on results within the CU environment. Strategic planning focuses on the development of strategic objectives, action plans, implementation, change and measure. This category stresses that an organization's long-term organizational success and competitive environment are key strategic issues that need to be integral parts of overall planning. The strategic planning category is expected to have no relationship based upon findings from external literature.

The body of MBNQA literature suggest that Strategy did not have significant positive impact on results in Manufacturing, (Flynn & Saladin, 2001; Wilson & Collier, 2000), Healthcare (Meyer & Collier, 2001), and Government (Peng & Prybutok, 2015). While the education study did show a significant result (Abdulla Badri, et al., 2006), this is mitigated by two factors. First, the cited studies all found that leadership had a significant impact on results. Academics describe strategic planning as a means by which leadership can achieve the results and outcomes of the organization and for that reason strategically important to the MBNQA (Wilson & Collier, 2000). The second reason for this position comes back to the CU as an internal function to the organization. The plan that matters most to the organization is the organization's strategic planning process. The learning leader will be responsible for contributing to that plan and helping it to achieve its mission.

For CUs, further qualitative evidence of these relationships exists within the literature reviewed. These come in the form of CU authored handbooks and guides to starting a CU. Those focus on advisory boards and councils and aligning the goals of the CU with the overall strategy of the organization (Kalman, 2008; Meister, 1998; Wheeler & Clegg, 2005), which is imperative

as a CU operates within the context of the organization. The CU must support the organization through defining the products and services it provides, such as at Disney, which provides an external revenue stream (Frizzel, 2015), and attaching champions to those programs (Meister, 1998) so that senior leaders can identify and continue to progress the strategic plan. Ultimately, functional leadership is required to put into place key strategies aligned with the overall organization, making strategy critical to success and ultimately, leadership critical to helping define the strategy.

Excluded Variables

The goal of this study is to explore the relationship of the MBNQA framework and the results with the CU environment. Given the definition of the phenomenon requires that this department serve as a strategic tool to advance the mission, I determined that two variables should be excluded in this study (Measurement, Analysis, and Knowledge Management [MAKM] and Workforce Focus). They have been excluded from the study based upon reviewing MBNQA literature and learning, talent development and CU case studies. I will describe the rationale for their exclusion in this study.

Measurement, Analysis & Knowledge Management (MAKM): MAKM was removed as a potential variable for study. It was chosen for removal because literature suggests that the value of MAKM for a CU is derived primarily within the parent level, versus the within the CU function. If a CU is to serve as a strategic tool for a parent organization to achieve its mission, then investing in MAKM for only the CU would be short sighted. The role of the CU would be to create a broader set of skills or knowledge for the company to do so.

This position is reinforced within the CU body of literature. Numerous texts express the value of measurement and analysis to drive success. However, these efforts are always positioned within the context of linking learning, talent, development, and CU activity to achieving results and/or ROI for the organization (Barney, 2002; Paton, Reviewing and Reporting Results, 2005). Texts go as far as laying out metrics that might be important for a dashboard to present to the organization that will lead to results (Grenzer, 2006). Again, the context of these efforts is to better predict an organizational outcome rather than one of the learning, talent, or CU function.

Furthermore, the MBNQA framework does not have a consistent position on the role of MAKM on results. While two studies testing the framework in manufacturing and government environments failed to show a statistically significant impact on the results category from the MAKM category (Flynn & Saladin, 2001; Peng & Prybutok, 2015), studies in the health care and education contexts have been able to draw that linkage (Abdulla Badri, et al., 2006; Wilson & Collier, 2000). The inconsistencies of this variable in the MBNQA provide concern for testing within a CU function as a component of the parent organization. That information coupled with the lack of importance in the CU suggests it should not be studied.

Workforce Focus: Workforce Focus was removed as a variable for study. As a category, it is driven towards workforce capacity and capability needs, including means utilized to foster a positive work environment. Key areas of focus include ongoing needs assessments for skills, change management, workforce environment and benefits. The very nature of a learning, talent development, or CU operation will inherently bring with it a focus on workforce development. Key elements of the CU focus on driving engagement, culture, performance management,

learning and development as well as career progression. The learning, talent development, CU environment is a workforce strategy by itself.

Removing this category is supported by the literature. Evidence from CU literature describes critical decisions around workforce to be regarding formation of an organization structure (Grenzer, 2006) which depends upon identifying the right model or skill balance between insourcing and outsourcing. These decisions ultimately determine the skill mix that is needed (Wheeler & Clegg, 2005) which impacts how the work is done, the skills of the team, and they way that quality is created by the CU. This type of consideration should be considered within the construct of Leadership as a function of governance. Additional pieces of literature highlight advice in the CU movement such as "you don't need to do it alone" (Allen M. , 2002, p. 92). That statement references the myriad of partners that exist from traditional universities to deliver courses or special niche business that can support technology and distance learning. Some CUs from non-competitive industries teamed up to identify common issues and through a consortium were able to help share and spread ideas. As a sub-unit of the organization, the CU whose primary business is not education has larger needs for a skilled workforce. With key external partners willing to engage, the literature does not suggest time invested in studying this variable to be meaningful.

Literature on the MBNQA has mixed results in testing workforce focus linkages to results. In manufacturing (Wilson & Collier, 2000; Flynn & Saladin, 2001) and health care (Meyer & Collier, 2001) results were not significant between these categories. In government (Peng & Prybutok, 2015) and education (Abdulla Badri, et al., 2006) the categories did have significant results. That information coupled with the CU literature suggests it should not be studies.

Summary

In this chapter I have covered a broad span of literature. I started by examining the CU literature and the main threads and areas that the literature covered, including typology (what), purpose (why), and setting (where). These research threads emphasize continued focus on specifics that the CU function contributes to an organization's mission. In each of these areas it was apparent that management practices or "how" a CU operates was a gap in literature. This then directed me towards the management sciences. I then reviewed the MBNQA framework as a means of describing TQM, a theory espoused in CU literature as effective for supporting optimum CU management (Campbell & Dealtry, 2003). I covered the validity of the framework in the context of different industries including health care, manufacturing, and government. Given the validity of the framework, I then moved into CU literature and used exemplars to establish the rationale behind the variables that are included and excluded for study, including predicted relationships.

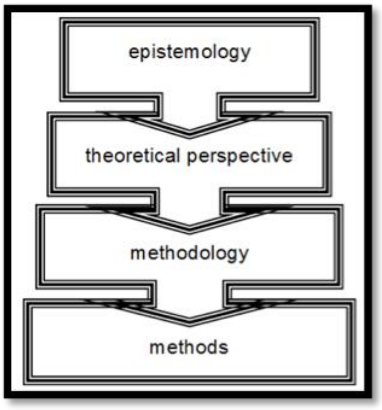
CHAPTER III: METHODOLOGY

Chapter 1 described the purpose of this study as an effort to research the fit of the MBNQA framework within the CU environment. Chapter 2 highlighted relevant CU and management literature. This led to an understanding that outstanding questions on core learning, talent development, and CU operations have yet to be evaluated (Lui Abel & Li, 2012; Rademakers M. F., 2014), and can best be understood through a TQM lens. Literature was reviewed through the categories of the MBNQA leading to an overarching set of hypotheses for testing. This chapter will frame my theory of knowledge, followed by the methodology and end with the methods. In the methods section I cover a justification of the methods, description of participants, and overview of the instrumentation as it relates to the theory of knowledge. Also included are descriptions of analyses that will be conducted to test the hypotheses.

Overview of Research Elements

To understand the value of the research proposal, it is important to understand the relationship between the methods I have selected and the overall value and contribution to the academic field. I will make this connection by linking my research process, current body of knowledge, and approach. Crotty (1998) outlines this process, including explaining it as a model for intentionally identifying and linking methods to the epistemology and the overall goals of the study. A visual model of the linkage between knowledge and methods is included as Figure 3.

Figure 3: Crotty's Research Model



The value of using this top down model for framing the research is to link "how" the research study will be accomplished with the purpose and understanding of "why" the study is being pursued. I will use this framework to describe my thought process and rationale for the proposed study.

Epistemology

Epistemology as described by Crotty is a "way of understanding and explaining how we know what we know" (1998, p. 3). Stated simply, this is knowledge that we believe is possible and attainable. Within the social sciences, the two main contrasting epistemologies are positivism and constructionism. These constructs conflict over the notion objective reality and whether that can exist beyond knowledge created by our own selves (Easterby-Smith, Thorpe, & Jackson, 2015). This tension boils down to the degree to which a single construct can exist and be tested and measured. Positivists tend to focus on creating single universal constructs using statistical work (Easterby-Smith, Thorpe, & Jackson, 2015), while Constructionists lean toward to the belief that "different people may construct meaning in different ways, even in relation to the same phenomenon" (Crotty, 1998, p. 9). Thus, constructionists focus more on abstracting

thoughts through observation, narrative, or other documents (Easterby-Smith, Thorpe, & Jackson, 2015).

The unresolved research question related to core CU processes that drive effectiveness (Lui Abel & Li, 2012) implies a positivist slant to it. It is underpinned by the idea that we can reasonably know that a set of constructs or processes exists and can be identified and quantified. It is also believed that they can be measured in a way to determine CU effectiveness. This is a shift towards positivist approach in a field that has to date been focused almost exclusively on constructionism. The focus on constructionism within the CU environment has been called out by experts who know that primary methods of study have been case studies, interviews, artifact collection, and individual narratives (Paton, Peters, Storey, & Taylor, Preface, 2005). In these studies individuals describe their experiences with CU phenomenon or present a lived or observed experience as a case. There are few fundamental articles which attempt to summarize a common meaning or understanding of how CUs operate to identify a single "reality" that can be understood in those which are extremely successful. This lack of empirical research makes this study a valuable addition to the literature.

Theoretical Perspective

If epistemology looks at theory of knowledge, or how we can know, then the theoretical perspective is a means to "understand and explain society and the human world" (Crotty, 1998, p. 3). Whether starting from scratch or bringing a new model, researcher beliefs shape the foundation of the information that we can know. These form the constructs through which we will see the work and propose the study.

The theoretical perspective that I take is critical realism. This tends to be a "compromise position between the strong version of positivism and constructionism, but with more emphasis

on the former" (Easterby-Smith, Thorpe, & Jackson, 2015, p. 59). Like positivists, critical realists focus on causality between actions, emphasize quantitative facts, and pursuit of a truth. Unlike strong positivism, there is not a singular truth but concepts that can modify and adjust over time. The nature of knowledge can be dependent upon social structures, processes, and people (Fleetwood, 2013). These three elements are found within an organization and lend themselves to power dynamics, organizational processes, and hierarchies that can influence the work of the learning, talent development, and CU. This study lends itself to this critical realist approach due to the history of the research and lack of significant evidence-based models that exist for CUs.

CU researchers have utilized almost exclusively narrative and case studies to help tell the story of the CU. Each of those interactions serve as a critical data point to describe a model that can apply across all CUs. Bringing TQM as paradigm from which to lead and manage the CU (Campbell & Dealtry, 2003), offers a core set of constructs that can be modified based on the dynamics of power or structure from organization. Empirically testing this approach in a CU offers a common construct for future academic literature and also extends a body of MBNQA research that has been validated in multiple industries such as healthcare (Meyer & Collier, 2001; Prybutok & Spink, 1999; Schulingkamp & Latham, 2015), municipal government (Peng & Prybutok, 2015; Prybutok, Zhang, & Ryan, 2008) and higher education (Winn & Cameron, 1998). The benefits of doing this allow for transferability of information across academic discipline and in the future, learning from the dynamics of other organizations.

Methodology

After understanding the epistemology and theoretical perspective, the next steps of the process are to identify and then evaluate the most appropriate methodology. Methodology will

serve as the strategic choice for delivery of the goals of the overall research (Crotty, 1998). Given the slant towards positivism and focus on critical realism, linking core universal constructs to outcomes will require gathering of quantitative data. Unlike traditional organizations, CU data is hard to gather. This is primarily due to the nature of the type the environment, which operates within an organization for the benefit of achieving an organizational outcome. Based on this, a survey methodology provides an appropriate approach as I can gather both process and outcome data in a single approach.

Similar studies using a survey methodology with the MBNQA framework have demonstrated the effectiveness of this model in Health Care (Meyer & Collier, 2001), Manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), Government (Peng & Prybutok, 2015; Prybutok, Zhang, & Peak, 2011) and Education (Abdulla Badri, et al., 2006). The benefits of this approach allow for study of the relationship between elements and the results category as well as the relationship between the elements themselves. In addition, a similar approach allows for broader context of understanding of methods, analysis, and issues that may be faced in pursuit.

Moving towards this approach of a survey introduces some elements of potential bias, perception, and other data critiques. However, this is the nature of critical realism. More specific details around design and data capture will be described within the methods section.

Methods

At the operational level of the research model are the method and tactics by which to make the data gathering happen. While the survey methodology identifies the approach, the type of survey method is critical to helping achieve the end outcome of the proposed study. This approach requires an inferential survey method to draw conclusions based upon the data. An

inferential survey utilizes “dependent variables, and predictor variables to construct an end model” (Easterby-Smith, Thorpe, & Jackson, 2015, p. 76). This aligns with the overarching notion of positivism, given the need to explain a relationship between organizational behavior by connecting patterns of responses. The survey will draw inferences between the results category of the MBNQA framework (dependent variable) and the process categories of the framework (independent variables). I will also examine the relationship between the other categories to determine key relationships.

This type of survey method has been utilized to validate the MBNQA framework as effectively linking the model within contexts such as Manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), Health Care (Meyer & Collier, 2001), Education, (Abdulla Badri, et al., 2006; Winn & Cameron, 1998) and Government (Peng & Prybutok, 2015; Prybutok, Zhang, & Peak, 2011). The unique aspect of this study is the application of the inferential survey to the CU environment. The goal will be to focus on the Baldrige Categories as measured constructs with items measuring components of those constructs on the survey inventory. Assessing for the relationship between each category helps to determine the degree of fit in a new context. This will address the key question posed in previous literature regarding the core CU processes and their effectiveness.

Hypotheses

This study continues a thread of literature focused on applying the MBNQA framework to the CU environment. Previous studies have focused on industries such manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), Health care (Meyer & Collier, 2001), education (Abdulla Badri, et al., 2006; Winn & Cameron, 1998) , and municipal government (Peng & Prybutok, 2015; Prybutok, Zhang, & Peak, 2011). These studies have tested the relationships

between the MBNQA categories and results, as well as between category relationships. To extend prior research into a new environment, the primary question to be addressed is "To what degree do the MBNQA categories predict success in the learning, talent development, and CU environment?" The list of four hypotheses can be found in Table 1 from the Chapter 1.

An anticipated outcome is the establishment of Leadership, Customer Focus, and Operations being directly linked to the results variable in a linear fashion. Recall that these elements were reviewed in Chapter 2 to examine CU literature through the lens of the MBNQA literature to date.

Description of Context and Participants

Because this research is focused on CUs, the participants in this study are learning leaders. To ensure a good understanding of the full environment for the CU operations only individuals that lead the organization for the enterprise were included. Learning leaders are appropriate for this research because they must know and understand this context to either understand key customers, navigate in decentralized structures, or coordinate in a federated learning model. A federated model is one with a central authority, but divisions of the organization maintain autonomy for some actions. By this definition they lead the CU function for the organization.

This type of expert respondent is consistent with prior studies conducted in education (Abdulla Badri, et al., 2006), manufacturing (Wilson & Collier, 2000; Flynn & Saladin, 2001), and health care (Meyer & Collier, 2001). Furthermore, prior literature emphasizes that in smaller operating environments, a single individual that has an expectation that they are "well informed about…practices in their small firms" (Greer, Carr, & Hipp, 2016, p. 757) can suffice as an

accurate analysis of the firm's position. In my case, the CU voice is intended to reflect the CU function for the organization as the unit of analysis with full awareness and understanding for how they lead, coordinate, and navigate the organizational relationships. Data I will cover next show that CU size for most participants was less than 100 employees. A more detailed description of the sampling method will be described in a subsequent section.

In total, the link to the survey was distributed 65 times. 58 individuals started the survey with a total of 50 people completing the full survey for an effective completion rate of 77% completion from these learning leaders. This level of 50 responses provides the ability to run a multiple regression analysis (10+ responses for 4 key variables). In total, these responses were collected in a two-month period of July-August 2020. Respondents represented companies large and small. Notable companies that participated include Pepsi, Denbury, AT&T, Tenet Health, WellStar, Defense Acquisition University, and Best Buy.

Study participants provided basic background data on their parent organization, CU size, structure, and whether they use the CU construct name within their organization. This provides a background from which to review the results. I have included these data as Table 5 and will now give a high-level overview of the participants.

Table 5: CU Demographics

Parent Co. Size*	**%**	**CU Size***	**%**	**CU**	**%**	**CU Structure**	**%**
1-999	14	1-9	30	Yes	46	Centralized	32
1,000-2,499	16	10-49	32	No	54	Decentralized	14
2,500-4,999	14	50-99	18			Federated	54
5,000-9,999	20	100+	20				
10,000+	36						

Total Responses in each category = 50
*Size is measured in employees

Study participants came from a range of organization sizes. Of the organizations that participated in this study more than one-third of the participants (36%) came from large organization of 10,000 plus employees. One in five participants came from organization in the 5,000 – 9,999 employee range (20%) and the remaining participants came from organizations that were 1-999 employees (14%), 1,000-2,499 employees (16%) and 2,500 – 4,999 employees (14%). While this data reflects a slight skew from the overall set towards larger companies, this is important since the CU construct can most often be found in mid-sized to larger companies with the resources and broader strategy to make this a key differentiator.

Participants indicate that their learning teams tend to be lean. Most respondents (62%) operate with between 1-49 people, with 10-49 employees in the function as the largest response (32%). Despite large company sizes accounting for more than 1/3 of the sample population, learning function responses of 100+ employees for the learning function were indicated by only 20% of the population. This provides a good indication that the Customer Focus and Operations categories will be important to leaders that must maximize the use of their limited set of resources (people and money) to deliver the best possible outcomes for the organization.

Most study participants do not have an established “CU” in name. Based upon selection criteria (to be described later in the sampling section) they do have a function that performs CU like activities and have a leader that is doing this work. Slightly more than half of study participants responded that they did not have a CU (54%). This could be attributed to a waning in the phenomenon, a lack of desire for the “name” based upon a lack of results achieved, or even a desire to avoid the delicate balance of practice versus academic imagery that emerged as barrier to success the NHS. It could also be attributed to broader Human Resources strategy to evolve the function into a more strategic level within the organization. Either way, it provides a good

indication that the Leadership and Customer Focus categories will be important as the function evolves to meet the needs of the business.

86% of respondents have a singular lead for learning in the organization. More than half of organizations (54%) federated version of the learning organization structure, while the second highest response rate was for a single centralized function (32%). This provides an early indication that the Leadership and Operations are likely going to be important to ensure coordinating resources and maximizing CU effectiveness across the Federated enterprise.

This organizational and CU function demographic data provide a good backdrop and summary of the unique role that a learning function can play in an organization. Answers run the full range of responses but do provide additional affirmation for the MBNQA variables as being important to the outcomes.

Sampling

To gather the respondents, I used a hybrid sampling model of convenience and purposive to achieve the 50 respondents described prior. Convenience sampling occurs when people that can easily be recruited or are made available are selected for participation (Johnson & Christensen, 2012). Purposive sampling involves the researcher knowing what samples are needed and approaching potential members (Easterby-Smith, Thorpe, & Jackson, 2015). Utilizing my Chief Learning Officer network is both convenient because of my relationships with them and close collaborations as well as purposive in that I am able to intentionally select and engage with people from various organization sizes, industries, structures to get a well-rounded sample. Given changing pressures and duties during the Covid-19 pandemic this methodology helped me get to 50 responses needed to complete the study.

From a convenience sampling perspective, I have connections to many learning, talent development, and CU leaders through my existing network and relationships. As a lead to help plans conferences and serve as a facilitator and speaker at many, I have available lists of connections and information about these participants including organization, tenure, work history. Since I bump into them both virtually and in person, using this network to gather data is a convenient source of participants. This convenience also comes through in response. Through using this network, I was more likely to get a response and completed survey, as I have done the same for them previously.

From the lens of purposive sampling, I identified participants based on three key elements. The first of three elements required that the individual lead a set of CU like activities for their organization. This enabled me to get the best perspective on the full approach to the organization by getting beyond just a title of "CU." Further to this point, the second element required that the department be more than just a training department with a CU title. It needed to be inclusive of broader CU services. For this reason, I excluded many colleagues that lead "CUs" but have only a name of CU since they focus specifically on technical training such as nursing education. The third element that I focused on was diversity of industry. Having a wide range of size and industry helps to provide a broader data set and limit post analysis arguments that data cannot be considered broad enough for potential generalization. This provided rich demographic data of responses and could in future studies lead to further investigation from this same data set.

Instrumentation

As mentioned, this study is a continuation of previous threads of survey research utilizing the MBNQA to test the relationship between process categories and results. The instrument used for this study has gone through a four-step process to achieve face validity for the CU

environment and this study. The steps in order were (1) compile evidence-based questions from prior surveys into a single pool, (2) prioritize these questions into what best addresses the constructs of the CU environment (3) adjust and refine wording for the CU environment, (4) establish face and content validity with MBNQA and CU experts (Greer C. R., 2001).

In the first phase, I gathered two instruments for review from the most recent studies related to health care and government (Abdulla Badri, et al., 2006; Peng & Prybutok, 2015). These were selected because they used the two most recent versions of the MBNQA framework. They were then cross-checked against updates in the 2019-2020 version of the study. This created a pool of over 100 validated questions to pull from and utilize in my study.

The second step involved prioritization of the question. Questions were framed within their process category (Leadership, Strategy, Customer Focus, Operations) and reviewed for overlap in wording, and concept. One complete, the best items were selected and included for rewarding.

In the third step of the process, I adjusted questions to reflect the learning, talent development, and CU environment. In some questions, wording was slightly modified to reflect "in our learning function/talent development function" versus university or local government. Other questions that referred to "boards of directors" were replaced with "senior leaders." These were then reviewed again and send on to the next step of the process.

The final step of the process followed required convening two experts for face and content validity. Both experts are certified National Baldrige Examiners and routinely participate in evaluating organizations. These experts also have worked in a CU environment, so they know

and understand its context within the organization as well. Once these items were completed, I moved to address the potential methods bias of using one instrument for the survey.

The first way to recognize and potentially address the common methods bias (CMB) was by inserting a marker variable. Best practice in addressing potential common methods bias requires foresight and intentionality in selection of variable and design (Simmering, Fuller, Richardson, Ocal, & Atinc, 2015). I will describe how I did this within the instrument.

The marker variable selected was “Blue Attitude.” This variable was designed for the purposes of serving as a marker (Simmering, Fuller, Richardson, Ocal, & Atinc, 2015). In this study, the variable functioned as a break in thought between the process category variables and the results category variable. It was inserted between the sections capturing dependent and individual variables. While awkward and potentially disruptive, I took this approach to create a hard-cognitive break between through processes. There were no complaints from participants about it being disruptive in nature.

As a second step in address common methods bias with the instrument was in the results section. The scale of instrument was designed differently. It allowed individuals a slider option with a focus on selecting a numeric score from 0-100. This change in cognition could also help eliminate defaulting to “strongly agree” or “agree.”

As a result of these efforts, I was able to create16 items for this survey. The first 5 questions were demographic questions to get a better sense of audience and scope of the participants. They are not intended to serve as groups for comparison in this study. Questions 6 – 9 are focused on the category variables with each question having sub-items which were rated on a six-point Likert Scale. In total 22 sub-items were created for the process categories of

Leadership (6), Strategy (6), Consumer Focus (5), and Operations (5). The rationale behind this forced choice is that either a practice exists or does not. With a process orientation, the process either exists or it does not and as such "not applicable" or "neutral" do not apply. Question 10 and its sub-items (4) serve as the marker variable "blue attitude." Finally, questions 11 -15 reflect the outcome variable metrics identified. Based upon prior research (Peng & Prybutok, 2015), these questions capture perspectives on different components of effectiveness including delivering on expected results, importance of results, process efficiency, cost effectiveness, and customer satisfaction. Together these categories form a composite metric for results. The instrument is presented as Appendix A.

Procedures

After revising the instrument, I called, e-mailed, and used LinkedIn to message participants for the study for recruitment. Immediately after receiving agreement to participate, I distributed a survey to the learning leader. In the distribution of the survey, I emphasized that: (1) that the survey is confidential and data will be deidentified, (2) identified that the survey is optional, and (3) the research study will offer final results for participants, should they opt into identifying themselves.

As a part of the completion on the online survey, all participants acknowledged their participation and signed an acknowledgement of agreement to participate. The acknowledgement highlighted both anonymity and confidentiality. It also provided individuals the option to stop participation at any point up through completion of the survey. Given this study took place during a global pandemic, I worked in two bursts of data collection activity. In the first wave I received 25 responses. I then made a second push for response with a new set of participants. Given the rolling nature of the survey, I activated a notification feature on the survey to let me

know when surveys were completed. Reminders were not distributed in this survey as they were not needed.

Once 50 respondents had completed the survey, the instrument was closed, and data were exported to an excel file. To protect identities, the excel file was stripped of identifies including IP addresses, and e-mail addresses should the person have requested to receive the results. The excel file was then fed into SPSS where variables were labeled, coded, and analysis was run.

Data Analysis

The intent of this study is to employ quantitative analysis to expand the literature and respond to expert calls for more research around CU processes that can drive success (Lui Abel & Li, 2012; Rademakers M. F., 2014). This section highlights the types of studies expected to test the hypotheses presented. In Chapter 4, I will review the analysis of these studies.

Descriptive Statistics

Basic descriptive statistics will be generated to understand the overall data set. Descriptive statistics will serve as the foundation for other analysis. These descriptive statistics will be used to describe and compare various categories within the process categories and results category. Data presented will include a mean score for each category (i.e. Leadership) as well as a breakdown of each item within the category (i.e. CU Management Fosters Innovation). These data will help to describe the overall prevalence of practice of components of the MBNQA within a top performing CU environment.

Regarding category scores (process and results), the descriptive statistics provide an insight into overall perspectives of effectiveness and prevalence of practice in the MBNQA

constructs. Higher scores will signify practices in areas of process categories and better perception of overall results within the results categories.

Multiple Regression

To address the nature of the specific relationships between the categories, I will use multiple regression. This will allow for me to test the nature of my hypotheses. Multiple regression will provide the analysis needed to create a linear regression between the process variable categories (leadership, strategy, customer focus, operations) and the results composite metrics.

Data Integrity Bias Analysis

I also intend to evaluate the integrity and quality of the data to ensure that I can describe many potential elements of bias which can occur. I will use a standard of reviewing the first 20% of responses versus the last 20% of response to test for variance. This test, known as wave analysis, will allow for a better understanding of potential bias and or forced results and has been vetted multiple times (Atif, Richards, & Bilgin, 2012; Armstrong & Overton, 1977) and can be commonly found in management literature.

I will also test the responses for a CMB. CMB refers to the degree to which correlations are inflated due to the method used to measure them (Meade, Watson, & Kroustalis, 2007). CMB may occur when individuals use the same method to assess measures that will be correlated (e.g. self-report). In this case, it will be collecting data on results through the survey at the same time as collecting data on the different work categories. Podsakoff et al. (2003) identified four primary reasons for this to occur. They include having a common rater, having item characteristics that cause ambiguity, having item context effects such as priming/group, and

measurement context effects such as collecting dependent and independent variables at the same time.

Authors have determined a more rigorous approach to test for CMB is through using a common factor analysis (CFA) a preselecting a marker variable (Simmering, Fuller, Richardson, Ocal, & Atinc, 2015). I previously identified “Blue Attitude” as my marker variable as I believed that I would achieve at minimum, 100 responses to conduct structural equation modeling. Using this marker variable would allow for significant academic rigor. With only 50 responses, I pivoted to using linear regression and this marker variable could be used to conduct a correlation analysis to determine any potential concerning relationships that should be adjusted in the model.

Chapter Summary

In this chapter I have laid out the foundations of the methods and methodology for the approach to this study. I reviewed my overall philosophy of the approach to knowledge creation. Through this lens I have also introduced the methodology selected as well as the reasons for the survey design methodology. I have also introduced the approach to analyzing data to gain relevant knowledge to the research questions. Through this analysis I will achieve understanding directed toward the most relevant areas.

CHAPTER IV: DATA ANALYSIS

Introduction

This chapter will focus on data analysis for the electronic survey. It will be organized into the following sections: 1) A review of the study, research questions and hypotheses; (2) A presentation of initial descriptive statistics and data quality review; (3) A review of the inferential statistics to address the specific research questions at hand. Results will be presented as findings in this chapter and explained in further detail in Chapter V.

Review of Study, Research Questions, and Hypotheses

Recall that the primary intention of this research is to assess the relationship between key processes within the CU function and their relationship to the results using the MBNQA as a framework. To date, literature within the CU field has been predominantly qualitative in nature. Coming mostly from case studies, the focus has been on describing what CUs do. A thematic review of the CU literature was presented in Chapter II. The review of literature also introduced the MBNQA framework as a model that could potentially reflect CUs practices and drive outcomes. The MBNQA was selected because it closely aligns with CU literature suggesting TQM as an effective framework for leading the environment. Additionally, the MBNQA framework brings significant credibility and has been validated in different industries. The history and literature regarding framework validity were also covered in Chapter II. The methodology selected in this study mirrors evaluation of the MBNQA framework discussed in that Chapter II using both process components as well as the foundational instrument as the baseline. These were then tailored in conjunction with CU and MBNQA experts to reflect the needs and activities within the CU.

The question for study currently is to what degree do the MBNQA constructs of Leadership, Strategy, Customer Focus, and Operations have an influence on the results within the CU environment. Recall that the MBNQA has seven total categories (6 process categories and a results category) and in previous chapters, I described removing two process categories (Workforce and Measurement, Analysis, and Knowledge Management) from the study because no literature exists to demonstrate their effectiveness within CU environment. There are four remaining categories for study. Given that a single instrument and collection process for dependent and independent variable was used, a marker variable, known as "Preference for the Color Blue" was selected and included to test for and prevent common methods bias.

The hypotheses for the study were included in Chapter I as Figure 1 and are included here again for quick reference:

Number	Hypotheses
H1	A linear relationship can be established between the MBNQA framework (i.e. Category variables and the Results category)
H2	The leadership category of the MBNQA framework will have a statistically significant positive impact on results.
H3	The strategy category of the MBNQA framework will not have a statistically significant impact on results.
H4	The customer focus category of the MBNQA framework will have a statistically significant positive impact on results.
H5	The operations category of the MBNQA framework will have a statistically significant positive impact on results.

I entered the study intending to test an assumption that a linear relationship exists between MBNQA categories of Leadership, Strategy, Customer Focus, Operations and Results. My expectation is that Leadership, Customer Focus, and Operations will contribute positively to Results. I also hypothesized that Strategy would not have a statistically significant relationship

with Results. This would leave a three variable final model that accounts for results within the CU.

Descriptive Statistics and Data Quality Analyses

This section of Chapter IV presents the descriptive analyses for this study on the dependent and independent variables. I will also cover a review of the quality of data including checking for bias in responses. The descriptive analysis will provide overall content for the overall perceived level of practice of each of the MBNQA process categories and perceived effectiveness of the CU by the learning leader via the dependent variable analysis. The data quality process will ensure data meets quality standards given the approach to collecting the data.

Independent Variable Scores

The tested process categories of Leadership, Strategy, Customer Focus, and Operations were evaluated on the basis of multiple items and data gathered from the electronic survey. Recall, these items were slightly modified from prior research with the help of CU and MBNQA experts to maintain face and content validity. Each question is weighted equally against the construct. A six-point Likert scale was used, and scores were added on a range, indicating strongly disagree (-3) to strongly agree (3). The descriptive statistics for independent variables excluding the marker variable are summarized in the Table 6.

TABLE 6 - INDEPENDENT VARIABLE RESULTS

Independent Variable	N	Mean	Std. Deviation	Min	Max
Process Composite	50	1.01	.98	-1.32	3
Leadership	50	1.28	1.01	-1.17	3.0
Strategy	50	.77	1.11	-1.50	3.0
Customer	50	1.02	1.20	-2.20	3.0
Operations	50	.98	.95	-1.00	3.00

Results for these independent variables suggest that, while companies mostly agreeing that some version of a process is in place, a wide range of views exists. Learning leaders suggest that as a process, Leadership, is the strongest within the CU environment (mean 1.28). Note that given the scoring model, this signifies only a mean rating of closer to "slightly agree" than "agree". The second strongest process category is Customer Focus (mean 1.02), suggesting organizations slightly agree with their strength on customer focus. It is worth noting that Customer Focus also had the widest range of responses, with at least one organization tending toward strongly disagree in most of the consumer focus questions (mean -2.20). The third highest score was Operations (mean .98) suggesting that most tend towards slightly agreeing with their strength in this category. The operations category also had the smallest range of responses, suggesting less variation in practices. The lowest performing independent variable category was strategy (mean .77).

In addition to individual process categories, an overall process composite variable was created to get a sense of where CUs emphasis on all process categories fell. By creating the composite, it's easy to see that overall, CUs believe they are performing these activities at a slightly agree level (mean = 1.01). Seeing more than a quarter point difference above the mean on *Leadership* and nearly a quarter point difference below the mean for *Strategy* led me to

explore whether there are any statistically significant variations between these categories and the mean.

To get a better understanding of whether statistical significance exists between these differences in the findings above, I conducted one additional test, a t-test between process category variables mean of the other variable. Results of this test are included in Table 7.

TABLE 7 - EXPLORING PROCESS VARIABLE DIFFERENCES

Independent Variable Comparison	Mean	t	df	Sig (2-Tailed)	Mean Difference	95% CI Lower	95% CI Upper
Process Measure Composite	1.01						
Leadership	1.28	1.91	49	.06	.27	-.01	.56
Strategy	.77	-1.50	49	.14	-.23	-.55	.08
Customer	1.02	.06	49	.95	.01	-.33	.35
Operations	.98	-.25	49	.80	-.03	-.30	.24

Statistical significance (*$p < .05$. **$p < .01$. ***$p < .001$.)

The result of this test found nothing of statistical significance in the difference between the process variables and the overall composite. Leadership did approach the p-value <.05 range with a p-value of .06. This indicates that while not statistically significantly, Leadership did outperform the mean of all categories. No other values came as close.

Dependent Variable Scores

The dependent variable construct was an overall composite comprised of five sub-category items from the instrument. These outcome items were based on the responses of senior leaders to the survey items asking them of the effectiveness of the CU in the domains of "customer satisfaction," "routinely delivers expected results," "process efficiency," "impact on the most important outcomes," and "cost effectiveness." The composite metric allows for various

components of success to be identified beyond just a financial impact or return on investment. While these might not be readily available via a budget or overall report, it does allow for the senior leader to articulate unique successes that may not come across otherwise. The descriptive statistics for the dependent variables in this study are summarized in Table 8.

TABLE 8 – RESULTS VARIATION

Results Variable Compositive & Sub-Categories	N	Mean	Std. Deviation	Min	Max
Results Composite	50	69.69	16.79	22	98
Customer Satisfaction	50	73.54	17.76	10	98
Routinely Deliver Results	50	74.14	16.77	30	100
Process Efficiency	50	65.34	19.32	33	98
Most Important Outcomes	50	76.06	16.11	28	98
Cost Effectiveness	50	59.38	23.93	5	100

The results from these ratings demonstrate an overall results composite mean of nearly 70 pts (69.69) with a wide range of 22 – 98. This wide range of scores is beneficial as it provides the variation necessary to discern insights. Within this composite data it is also helpful to understand where CU leaders feel they have the most and least impact. In total CU leaders believe that their functions were having the largest impact on delivering results for the most important outcomes (76.06), delivering expected results (74.14), and satisfaction from customers (73.54). This implies narrow focus on customer centered approaches. Leaders felt their biggest opportunities were around process efficiency (59.38) and cost effectiveness (65.34). These last two also had the widest standard deviations, signifying a broader range of response to the survey items.

In a similar approach to the independent variable data, I decided to explore whether there was a statistically significant difference between any of the subcomponents of the Results Composite metric and the composite itself. The results of that test are included as Table 9.

TABLE 9 - EVALUATING THE RESULTS COMPOSITIVE

Dependent Variable Sub-Category	Mean	t	df	Sig (2-Tailed)	Mean Difference	95% CI Lower	95% CI Upper
Results Composite	69.69						
Most Important Outcomes*	76.06	2.80	49	.01	6.37	1.79	10.95
Routinely Deliver Results	74.14	1.88	49	.07	4.45	-.32	9.22
Customer Satisfaction	73.54	1.53	49	.13	3.85	-1.20	8.90
Process Efficiency	65.34	-1.6	49	.12	-4.35	-9.84	1.14
Cost Effectiveness***	59.38	-3.05	49	.00	-10.31	-17.11	-3.51

Statistical significance (*$p < .05$. **$p < .01$. ***$p < .001$.)

Data from this test identify that versus the composite, there are two distinct sub-measures which are different from the overall composite metric in a statistically significant way. Those measures are "Most Important Outcomes" which scores above the mean and Cost Effectiveness which scores below the mean. Both are significant at the p-value <.05 level. These will be explored in the findings.

Data Quality Testing

The final set of tests in this section relate to the data quality measure I put in place. The goal of these tests is to ensure that I account for any potential bias in the data. This is an important part of the study because of the method and sampling approaches could produce unwanted bias. Convenience and purposive sampling could produce a non-response bias. In addition, I also used an instrument that collected both independent and dependent variable data in the same sitting and this could produce common methods bias.

To test the sampling and non-response bias I used a wave analysis procedure to examine variation in data between the first collection effort (25 responses) and the second collection effort (25 responses). Each response was marked as one of those two waves and I conducted an

analysis of variance with Levene's Test of Homogeneity. Using this statistic requires that a H_0 be tested that there are equal variances between the groups. Table 10 highlights the figures from the analysis. Based on this data, I am unable to reject the null hypothesis that equal variances exist and there conclude equal variances are assumed. This indicates that a non-response bias does not exist.

TABLE 10 - LEVENE TEST OF HOMOGENEITY OF VARIANCES

Category	Levene Statistic	Sig
Leadership	.08	.785
Strategy	.67	.42
Operations	.48	.49
Customer Focus	1.71	.20
Results Composite	.00	.98

My second concern in data quality relates to common methods bias. Recall that common methods bias can occur when dependent and independent variable data is collected via the same instrument. The subsequent section will focus specifically on relevant post-hoc testing.

Due to the sample size of 50, many versions of post hoc tests were unavailable for use in regression analysis except for Harmon's 1-Factor test. I excluded this test based upon recent literature which suggests that it "cannot produce an accurate conclusion about biasing levels of CMV in data" (Fuller, Simmering, Atinc, Atinc, & Babin, 2016, p. 3197). The good news is that the same literature suggests that common methods bias many not pose as severe a threat to this study and researchers should conduct detailed analysis when there is evidence of potential influence on the data (Fuller, Simmering, Atinc, Atinc, & Babin, 2016).

Using this suggestion, I began looking for influence on the data by evaluating the dependent and independent variables by using correlation analysis with the marker variable. The

goal was to explore to whether a statistically significant relationship existed between "Blue Attitude" and each of the independent and dependent variables. These would indicate a need for deeper exploration of common methods bias. The results of these analysis are included as Table 11.

TABLE 11 - BLUE ATTITUDE CORRELATIONS

Category	Blue Attitude	p value	N
Leadership	-.03	.41	50
Strategy	.01	.49	50
Customer Focus	-.01	.49	50
Operations	-.02	.41	50
Results Composite	-.10	.28	50

The data suggest that "Blue Attitude" did not have a statistically significant correlation with results that met the threshold of $p < .05$. On top of this analysis, I articulated the design components in the instrumentation section of Chapter III. I employed techniques such as intentional design and interruption of thought between the independent and dependent variable by inserting the marker. Furthermore, the scales presented were different in each section and the functionality and presentation of the scale on the survey were different. Given the limitations of available volume of survey and the intentional design of the survey instrument and data from the correlation analysis, I will assume no bias in this sample.

Results from this set of analyses suggest that the data meets acceptable standards of quality for testing. There are no appearances of common methods bias, nor non-response bias gathered. I will now turn to more complex statistical techniques to evaluate the research question and hypotheses.

Inferential Statistics: Addressing the Research Question

I will examine the research question using inferential statistics. The data provide a response to the research question, to what degree do the process constructs of the MBNQA framework (Leadership, Strategy, Customer Focus, Operations) influence the results within CU environment? Through a review of literature and examining MBNQA and CU literature, I reviewed the five hypotheses shared at the beginning of this chapter. To test these hypotheses, I will cover the statistical analysis conducted including multiple regression via backward selection to test hypotheses 1-5 with additional tests of assumptions of regression analysis to confirm hypotheses 1.

Multiple Regression - Backwards Selection

Multiple regression was selected as the inferential tool because of its ability to test linear relationships between the independent variables and the results measure. This statistical tool will help explain the way the variables contribute to the overall results. Results will establish a framework for how to think about creating success in the environment including the statistical significance.

The type of regression method was the backwards selection. Backwards selection begins with all variables loaded into the analysis. After the first regression variables that are not statistically significant are removed beginning with the least significant. The model is then repeated until a final model is selected. Given the hypothesized model of 3 of 4 MBNQA independent variables would be significant (Leadership, Customer Focus, Operations) it seemed best to start with the full model and determine whether strategy was removed from the process.

It is worth minor commentary here that while collected, I did not include demographic information in the analysis (i.e. CU Size, Parent Organization Size). This was excluded because of a concern for degrees of freedom and the number of variables introduced with a small sample. I am relying instead on the quality of respondents and, for this study, preserving the degrees of freedom by excluding such variables.

Data from the first regression process is included below Table 12. Results from this table indicate these process categories contribute heavily to the results composite with 80% adjusted R squared which is significant at the p <.001 value. Also, at the p value of <.05, *Leadership* & *Operations* are statistically significant, while two *Customer Focus* and *Strategy* are not.

TABLE 12 - BACKWARDS REGRESSION STEP 1

Results Composite	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	UL				
Model						.82	.80***
Constant	52.67	48.63	56.72	2.01			
Leadership	6.01*	1.06	10.95	2.46	.36*		
Strategy	1.78	-2.22	5.78	1.99	.12		
Customer	3.47	-.148	7.10	1.80	.25		
Operations	4.50*	.78	8.21	1.85	.26*		

Note. Model = "Backwards" method in SPSS Statistics; *B* = unstandardized regression coefficient; CI = confidence interval; *LL*= lower limit; *UL*= upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2.

Statistical significance (*p < .05. **p < .01. ***p <.001.)

While the model presented is statistically significant at the p <.001, the purpose of this study is to identify the critical areas that drive results. To do that, the most insignificant variable would be removed and the run again. By this definition *Strategy* was removed and the regression run again.

Without the Strategy variable, new results emerged. These are included as Table 13. The MBNQA categories of *Leadership*, *Customer Focus*, and *Operations* all became statistically significant at the $p < .05$ value and the model still accounted for 80% of the results. Second, the unstandardized regression coefficients of Leadership, *Customer Focus*, and *Operations* categories of leadership and operations improved with leadership increasing by nearly one point and operations by a half a point.

TABLE 13 – BACKWARDS REGRESSION, FINAL MODEL

Results Composite	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2	F
		LL	UL					
Model						.81	.80***	65.99
Constant	51.92***	48.26	55.58	1.81				
Leadership	7.07**	2.76	11.39	2.14	.43**			
Customer	3.66*	.076	7.25	1.78	.26*			
Operations	5.08**	1.61	8.55	1.72	.29**			

Note. Model = "Backwards" method in SPSS Statistics; *B* = unstandardized regression coefficient; CI = confidence interval; *LL*= lower limit; *UL*= upper limit; *SE B* = standard error of the coefficient; β = standardized coefficient; R^2 = coefficient of determination; ΔR^2 = adjusted R^2.

*$p < .05$. **$p < .01$. ***$p < .001$.

The results of the second step of the backwards regression represent the final components of the MBNQA categories which drive success. They include *Leadership*, *Consumer Focus*, and *Operations* suggesting that Leadership, Customer Focus, and Operations have a statistically significant impact on outcomes, while Strategy does not.

Before affirming my hypotheses, I must now test the assumptions of linear regression to ensure the data accurately represent linear regression. Should it not meet the requirements of multiple regression, I will need to consider how to adjust for the statistics of a non-linear model.

Testing Assumptions of Linear Regression

In order to address hypotheses 1, this section will test the four key assumptions of regression: normality, linearity, homoskedasticity, and absence of multicollinearity. If all the assumptions are not met, a new set of statistical tests or adjustments will need to be conducted. Tests will be conducted using both visual inspection of the data as well as mathematical techniques.

The first assumption of linear regression is that variances are normally distributed. To test normality, I plotted the data on a histogram (Figure 4) showing overall data regression residuals. If data are normally, distributed a bell curve like distribution of residuals. There appears to be a bell curve of the data that emerging, but given the small sample size, I also created a Predicted Probably plot (Figure 5) to visualize whether the residuals stayed close to the predicted line.

FIGURE 4 - HISTOGRAM STANDARDIZED RESIDUALS

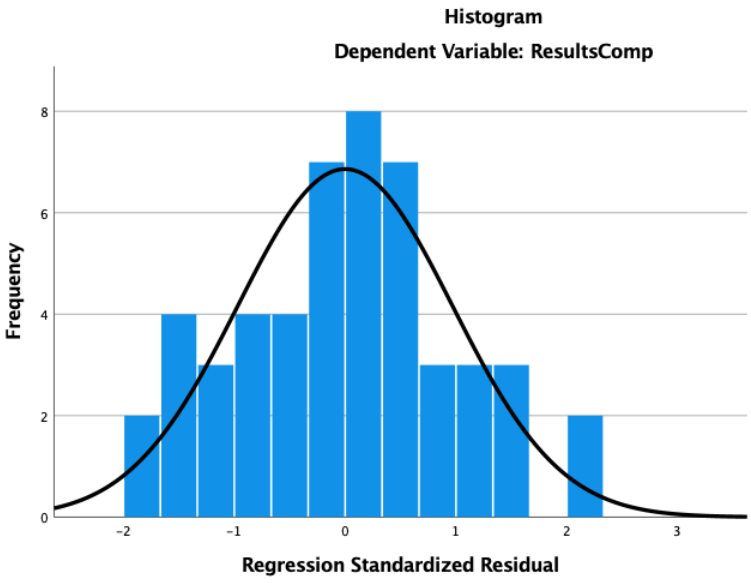
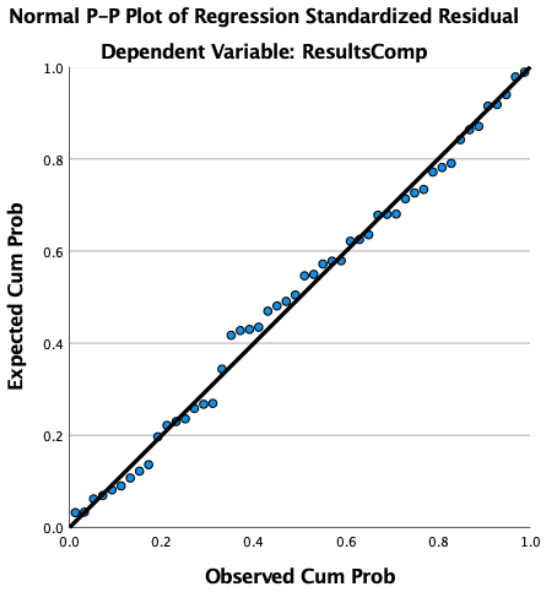


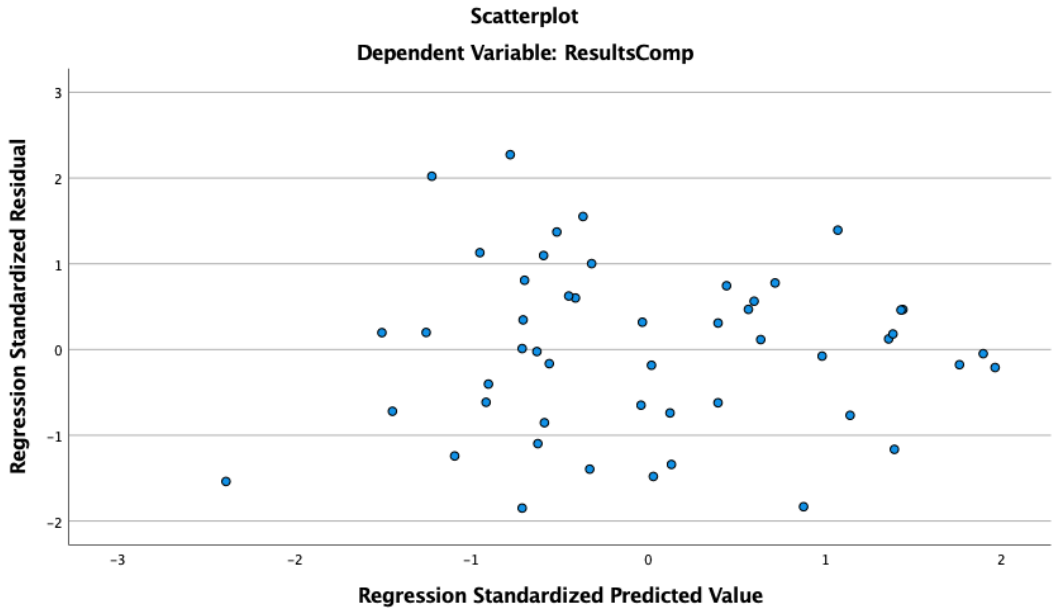
FIGURE 5 - PREDICTED PROBABILITY PLOT



This visual technique suggests normality of data. The histogram shows a bell curve shape. This is especially important because the set of data is relatively small (N=50), but this represent a good indication that the overall population data would follow this sample distribution. In additional the PPP diagram shows the data closely hugging the predicted line. Given these visualization techniques meet the criteria, I accept this first assumption of normality as true.

The second assumption of regression is that the data is heteroscedastic. This term refers to whether the residuals are equally distributed. One way of looking at this is through visualization of the data. This requires plotting the predicted values and standardized residuals on a scatter plot. A random pattern of data should appear. This is included as Figure 6.

FIGURE 6 - SCATTER PLOT OF PREDICTED VALUES V. RESIDUALS



It is not clear and obvious that the residuals are equally distributed. On the left and right of the scatter plot, there are some concerning areas on the graph that show a narrowing (right) and fanning (left) of the graph. To gain clarity, I conducted the Breusch-pagan test, a statistical test to determine whether data is homoscedastic. This test requires that we work from an H_0 that our data is homoscedastic. A p-value < .05 signifies we must accept the null hypotheses and the data does not meet the requirement for linear regression. Results from this test are included as Table 14 below.

TABLE 14 - BREUSCH PAGAN TEST

Homoskedasticity	
Breusch Pagan	*p*
4.01	*.26*

Results from this number produce a Chi Square number of 4.01 with a significance level of .26. For this reason, we must reject the null hypothesis. The data are heteroskedastic, and we can accept the data meets the linear requirements.

Having met the first two criteria, the third assumption of regression is linearity. Linearity implies a straight-line relationship between the independent and dependent variables. Given the results of the first two tests (homoskedasticity, and normal distribution) the results meet this assumption and the test of linearity is met.

The fourth assumption of regression is multicollinearity. This refers to whether the predictor variables are highly correlated with each other. In the final equation, I want variables that measure unique constructs. If not, I should consider removing the variable from the equation to avoid duplication of the same measure. A way to assess for this is by using VIF values. There are numerous studies that suggest a range from 4-10 as an acceptable VIF metric (Hair, Anderson, Tatham, & Black, 1995; Rogerson, 2001; Pan & Jackson, 2008). They key to these three different perspectives is context as explained by the author of the study.

For this study, given the novelty of the study and modification of the existing instrument, I used a VIF value of 5.0 or tolerance levels of .2 as the threshold. This election means that at minimum 20% of the variables (Leadership, Strategy, Customer Focus, Operations) were unique to that construct. Results of the VIF test that were conducted are included as a part of Table 15. No variable gathered crossed that 5.0 threshold. Leadership measured 4.07, Customer measure a 3.95 and operations measured a 2.33. This means multi-collinearity in the data is not present and this assumption is met.

TABLE 15 - MULTICOLLINEARITY TEST

Variable	*Multicollinearity*	
	Tolerance	*VIF*
Leadership	.246	4.07
Operations	.430	2.32
Customer	.253	3.95

The results of these analysis demonstrate that the data meet the assumptions of regression. This means that the hypothesis of a linear relationship between the process categories and results does exist. The calculation provided in the prior suggestion applies to the data with no necessary adjustments.

Findings

This section will provide a summary of key findings through the lens of the hypotheses. They will lead into a robust final chapter focused on the results.

Hypothesis 1: A linear relationship exists between the MBNQA category variables and results within the CU environment. This hypothesis is proved true. The theoretical model established provides a good fit within the CU context. Leadership, Customer Focus, and Operations impact results. Data met the required assumptions of linear regression and a final statistically significant model emerged driving Result Metric $F(3,46) = 65.99$, $p < .001$, $\Delta R2 = .80$. All three variables added statistically significantly fit within the model, $p < .05$. The final equation is as follows:

$$ResultsComp = 51.92 + (7.07\ x\ Leadership) + (3.06\ x\ Customer) + (5.88\ x\ Operations)$$

Hypothesis 2: This hypothesis was the leadership category of the MBNQA framework will have a statistically significant positive impact on results. This was met at the level of $p < .01$. The leadership variable has the largest impact on the final equation with an unweighted beta of 7.07. This indicates that improvement in this area has the largest impact on the results of all the process variables.

Hypothesis 3: This hypothesis was that strategy category of the MBNQA framework will not have a statistically significant impact on results. This hypothesis was met when Strategy was

removed in the backward selection process with a p-value of .38. For this reason, it does not appear in the final equation.

Hypothesis 4: This hypothesis was that the customer focus category of the MBNQA framework will have a statistically significant positive impact on results. This was met at the statistical significance level of a $p < .05$ level. Customer Focus has the third highest impact of the category variables at 3.66 unweighted beta. Note that this is also the weakest of all statistically significant variables.

Hypothesis 5: This hypothesis was that the operations category of the MBNQA framework will have a statistically significant positive impact on results. This was met at the statistical significance level of $p < .01$. Operations Focus had the second highest impact on the equation with a 5.08 unweighted beta.

Chapter Summary

This section reviewed the study, key data, and test the hypotheses. Results of the regression analysis indicate that Leadership, Customer Focus, and Operations were the three constructs that could effectively predict outcomes in the CU environment. Specifically, leadership has the highest attributed value, followed by operations focus, and then customer focus. As predicted, Strategy did not significantly contribute to the overall results. I will end this dissertation with a review of findings and implication.

CHAPTER V – FINDINGS, IMPLICATIONS, CONCLUSIONS

Utilizing the MBNQA as a framework to address CU operations, I explored the impact and relationship between the MBNQA process categories and the impact on the reported results as gathered by Learning Leaders across many organizations. Findings translate into tangible actions that can improve day to day work for learning leaders within corporate education and key outcomes and advancement of the CU field of study. Findings also lend them to the broader field of professional development and educational leadership. In this chapter I will distill the results into key outcomes, translate these outcomes into implications for theory and practice, and raise questions for further exploration. I have structured this chapter as a summary of the study followed by a summary of the findings and then leading into implications for practice. I will end on implications for theory and opportunities for future research.

Summary of the Study

In the first chapter, I outlined three key challenges for CUs from an academic standpoint that have a downstream impact on professional practice issues. The first challenge was limited availability of academic research on the CU function. The second challenge was that the existing body of CU literature places emphasis on qualitative methods rather than quantitative approaches. The third challenge was that questions in the CU body of literature remained and had not been addressed by any scholars. This problem has been best articulated by fellow scholars in the CU environment. Lui Abel & Li (2012) specifically ask “What core CU processes can produce the most impact on the success of CU operations?” (p. 122).

To directly address this question a framework needs to be established and tested. Top CU scholars suggest TQM serves as the best model for a CU operations framework (Campbell & Dealtry, 2003). Furthermore, the MBNQA is a scientifically validated framework rooted in TQM

(Curkovic, Melnyk, Calantone, & Handfield, 2000) and validated as an effective tool to help predict success across multiple industries.

This dissertation provides an exploratory analysis of the MBNQA in the CU environment. The question for study was as follows, “to what degree do the MBNQA process categories have an impact on CU results?” Findings to this question will help to improve practices by narrowing the set of constructs to specific evidence-based management practices found in the MBNQA framework. I began my study with five hypotheses related to the constructs and their relationship. These are found in Chapter 1 and Chapter 4 for reference.

To test these constructs a survey methodology was deployed. The survey method allows for quantitative results to be gathered quickly, around the independent variables (Leadership, Strategy, Customer Focus, Operations). Items were able to be created using prior research across multiple industries (Abdulla Badri, et al., 2006; Peng & Prybutok, 2015; Wheeler & Clegg, 2005). These items highlight specific practices within the independent variables. In addition, the method also allowed for gathering outcome metrics. Fifty learning, talent development, and CU leaders from companies of various size responded to the survey. Multiple regression analysis was used to explore the key constructs that drive results within the environment.

The significance of any findings cannot be understated. Results from this assessment help to improve the value proposition for learning, talent development, and CU operations by placing emphasis on where to prioritize efforts. They provide direction into importance and areas for self-audit and review. In a world with tight deadlines, and overwhelming amounts of work to be done, this can provide a clear picture of what a good learning in the CU environment. Furthermore, as the CU clearly identifies its practices, including where to partner, broader framing within the field of the system of education be determined.

Summary of Findings

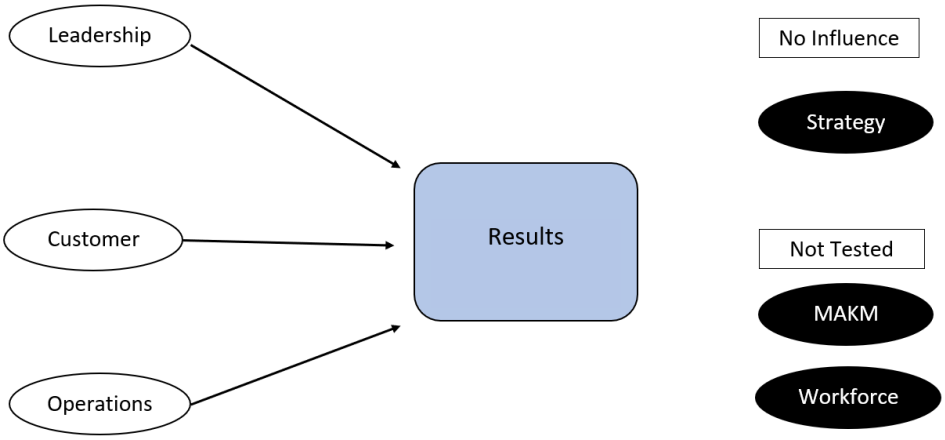
In this section of the chapter, I will highlight specific findings of my study related to the key elements from the MBNQA framework which drive success in the CU environment. I will present these findings in two parts. The first part will focus on the primary findings related directly to the research question focused primarily on the variables that were tested and the overall results. I will then move into secondary findings section that explores interesting results that emerged during the analysis. This review of findings will lead directly into implications for day to day practice for corporate learning leaders and into the field of educational leadership.

The MBNQA Provides a Promising Model for Success

As noted throughout this dissertation, the essence of this study is to get to a core set of practices that can have the most impact in the CU environment. Findings from the analysis represent two key learnings for day to day practitioners. The first are the variables that drive effective practices, and the second is their order of importance for impacting results.

As expected, the MBNQA has a great fit within the CU framework. This is evidenced by the fact that the three variables tested account for nearly 80% of the variance in model. These variables that drive success include Leadership, Customer Focus, and Operations Focus. The final model is included in this dissertation, as Figure 7.

FIGURE 7 - FINAL CU IMPACT MODEL



This visual represents a response to nearly 20 years of CU literature research. It is a response to authors requesting additional literature in this space (Lui Abel & Li, 2012; Rademakers M. F., 2014). This study confidently responds with a roadmap to create success in the CU environment. CUs should place primary emphasis on the MBNQA practices of Leadership, Operations, and Customer Focus in that order to drive the most effective results within the CU. This finding is consistent with existing literature has demonstrated that the MBNQA is a framework that can predict success in business across numerous industries such as Manufacturing (Flynn & Saladin, 2001; Wilson & Collier, 2000), Health Care (Meyer & Collier, 2001; Schulingkamp & Latham, 2015), Government (Prybutok, Zhang, & Peak, 2011; Peng & Prybutok, 2015) and Education (Abdulla Badri, et al., 2006; Winn & Cameron, 1998). In addition, it further substantiates the fact that the MBNQA will work well within a sub-system within an organization (Foster, Johnson, Nelson, & Batalden, 2007), like the CU function as within an organization. Findings across key variables in the study will now be discussed.

The Value of Leadership

Results from the analysis indicate that the *Leadership* process category had a statistically significant positive impact on the Results Composite measure used in the study. This was hypothesized at the outset and based upon MBNQA experts that describe leadership as the key driver of the entire MBNQA system (Blazey, 2013). It reinforces prior studies that identified that Leadership has a direct impact on results in various industries including, Manufacturing (Flynn & Saladin, 2001; Meyer & Collier, 2001), Healthcare (Meyer & Collier, 2001), Government (Peng & Prybutok, 2015), and Education (Abdulla Badri, et al., 2006).

In addition to having significant positive impact, *Leadership* also proved to have the largest impact on the results composite measure of the final model. Results demonstrated that *Leadership* moves the outcomes measure by more than 7 pts with a single point of improvement in the model (7.07 unstandardized beta weight). While rank order was not a component of the initial hypothesis it does provide value to understand that practices which enhance CU Leadership would make more dramatic improvements quickly.

Recall that *Leadership* has been defined through two key questions for the MBNQA which are “how do your senior leaders lead?” and “how do you govern and fulfill your societal responsibilities?” (National Institute for Standards and Technology, 2016). This was translated through a process into questions for the CU environment. Themes of these questions included alignment of work to the organization’s vision and values, ensuring communication with the team, partners, and key customers, establishing a strategy, goals, and objectives, being action oriented, evaluating all areas of its responsibility on a routine basis, and establishing governance. The questions can be found in Appendix A.

There are numerous practices which are written about extensively in the CU exemplar literature that can address the themes of *Leadership* via governance and senior leader buy-in. One example is gaining senior sponsorship for a program. As mentioned in the literature review, these types of practices engage senior business leaders in many phases, getting their buy-in, support, and alignment from a programmatic perspective (Grenzer, 2006; Wheeler & Clegg, 2005). Further exemplars take it a step further and reference "program sponsors" who may creatively serve as Deans of the CU as creative means for getting leaders engaged in the process (Meister, 1998). In establishing a third party to be the face and champion of the program, learning leaders who are more oriented to the program will be required to shift to address a set of eyes which looks at the program critically. The leaders will want know program objectives but through a more critical lens of the business. This will force learning leaders to evaluate communication plans, outcomes, alignment, and ways to improve the program doing more with less. Broader than a single program, other literature focuses on leveraging a larger group, as an advisory council to the entire CU function (Grenzer, 2006; Meister, 1998; Wheeler & Clegg, 2005; Kalman, 2008). This advisory council brings to it the same level of business savvy but focused on the entirety of the resources within the CU. This helps identify areas for improvement and align key needs and resources, forcing critical decisions to be made by the Learning Leader.

The results indicate that that *Leadership* is an important part of CU success. This aligns with the body of literature from both the MBNQA and also the CU environment. Future leaders must understand and prioritize not just their leadership style, but also these practices as they will drive the most success in the CU environment.

Downplay Strategic Thinking; Focus on Operations

Strategy and *Operations* are paired together because their comparison often goes hand in hand when identifying the best leaders to run a function and the most appropriate leadership methods to deploy. Outcomes of the study indicate that *Strategy* did not have a statistically significant impact on Results Composite measure, but *Operations* did. Strategy was the only variable excluded from the four tested with a p-value of .38. Removal of this variable had no impact on the overall fit of the model with 80% prediction of results before and after removal. *Strategy* also had the lowest prevalence of practice with a .77 mean score as an overall process category. This signifies most CUs felt the least good about this category. *Operations* on the other hand was statistically significant at the $p < .01$ level. In addition, it had the second largest impact of the three variables that made the final results. For every point improved in operations, there was nearly a 6-point improvement (5.88) in the Result Composite Score.

Recall that *Strategy* has been framed through two key questions for the MBNQA which are “how do you develop your strategy?” and “how do you implement your strategy?” (National Institute for Standards and Technology, 2016). *Operations* has been framed through two key questions including how do you design, manage, and improve your key products and work processes?” and “how do you ensure effective management of your operations on an ongoing basis for the future?” (National Institute for Standards and Technology, 2016). Themes of these questions for *Strategy* included a process for developing strategy, balancing needs, deploying and tracking, adjusting, and thinking through how to do the work on the strategic plan. Themes of the questions for *Operations* included a focus on identifying process, integrating processes with key partners, focusing on cost and efficiency, making improvements, and ensuring a safe environment. The questions can be found in Appendix A.

Findings in this study aligned with prior results and key work in the MBNQA and CU space. Prior MBNQA studies illustrated that *Strategy* did not have a significant impact in three industries manufacturing, (Flynn & Saladin, 2001; Wilson & Collier, 2000), Healthcare (Meyer & Collier, 2001), Government (Peng & Prybutok, 2015), while Operations was found to have a statistically significant relationship in three industries including Manufacturing (Wilson & Collier, 2000; Flynn & Saladin, 2001), Government (Peng & Prybutok, 2015) and Education (Abdulla Badri, et al., 2006). These results were found to be aligned with a need not just for ideas but execution of them to see the final results of a strategy.

The CU has long been considered a key operational function. The very definition of the CU serving as a "strategic tool designed to assist its parent organization in achieving its mission by conducting activities that cultivate individual and organizational learning, knowledge, and wisdom" (Allen M. , 2002, p. v), implies the value is in execution of work that will drive the results of the organization. For decades CU experts like Mark Allen have articulated that the CU is a component of implementation of the broader strategy, specifically the people elements, hence the emphasis on "achieving its mission" in the core definition. This position enables a pivot from *Strategy* to *Operations* by focusing on how to deliver results (Allen M. , 2002). Two examples from the professional services industry highlight how a CU focuses on the need of the business first.

Deloitte is one exemplar of serving the needs of the business. It made major investments into a corporate university to ensure it won the war for talent and the war to develop talent. It is stated quite clearly that the business was struggling with unfilled positions and an inability to find the right skills in the market (Pelster, Schwartz, Rizzo, Valenzuela, & Van der Vyer, 2013). The framework from this vantage point is first, what is the business trying to achieve, second,

what are the skills and positions, and third how do we find or grow them. In this example, the CU operates in a practical way for the advancement of the business. Similarly, Booz Allen Hamilton took this approach in the 90s to align the skills of the people with the needs of the business (George-Leary & Cohen, 2007). In this example, to align to a people strategy and needs of the future, the organization determined in order to keep current talent and grow them for the needs of the business a framework needed to exist which would ensure Booz Allen remained the best places to work. Their effort to give people a long-term career trajectory is an example of how the CU works in-service of the parent organization, and not independently from it.

Additional literature corroborates that the most critical key work processes of the CU were not actually the delivery of the work, which could be done by a traditional education institution, but instead in the needs analysis, solution selection, and overall evaluation of success (Van Adelsberg & Trolley, 1999). This then leads to outsourcing lower cost labor with key skills honed on assessment. This enables the CU to run at a lower cost and focused on the value to the organization versus holding fixed overhead. By using this operational frame of reference, the CU helps manage cost strategically for the organization.

The results indicate that that while *Strategy* has no impact on results, *Operations* is an important part of CU success. This aligns with the body of literature from both the MBNQA and the CU environment. Future leaders must try to think differently about delivery in the CU environment and focus on the right skill mix and process focus.

Build Strong Customer Focused Approaches

Results from the analysis indicate that the *Customer Focus* process category had a statistically significant positive impact on the Results Composite measure used in the study. This

was hypothesized at the outset based primarily on the CU literature rather than MBNQA literature. In the MBNQA studies, customer focus only had a direct impact on results within health care (Meyer & Collier, 2001) and no other industries.

Customer Focus made the final three variables predicting success with a statistical significance of $p < .05$. Of the three final variables, it was also the third highest process category with an unweighted beta of 3.05. It had the broadest range of responses in terms of score on the process scale. This signifies that there are some extreme variances in potential practices in this construct.

Recall that Customer Focus has been framed through two key questions: "how do you obtain information from your customers?" and "how do you serve customers' needs to engage them and build relationships?" (National Institute for Standards and Technology, 2016). CU questions in the survey were focused around themes of processes for clarifying and identify key customers, listening to their needs, managing relationships, adjusting to their shifts and measuring satisfaction.

This finding is primarily attributed to the fact that the CU is a micro-system, or sub-system of the broader organization. In these environments, Customer Focus has been determined to be a critical component of success (Foster, Johnson, Nelson, & Batalden, 2007). Part of the value of the CU has been covered in the literature on Operations. With the primary purpose on fulfillment of the mission, understanding the needs of internal customers is paramount. For that reason, it is clear that the CU would be different from other industries tested.

Knowing and understanding internal customers is explored in literature which covers the different CU types (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). If internal customers drive

needs, then there is likely to be a substantial amount of differences between industry, geography, and preferences. Each business, business model, and structure dictates the types of solutions required. Caterpillar University, served as a type of CU focused on knowledge sharing and driven by needs of the key executive customers (Allen M. W., 2007). Alternatively, there are other types of need that could be driven by executives and environment. One example was the role of the CU in the German industry. In that space, efforts by CUs have focused less on skill building and more on leadership development because of the role of the government in enhancing skilled trade (Andresen & Lichtenberger, 2007).

The results indicate that that Customer Focus is an important part of CU success. This aligns with the role and purpose of the CU and literature which states internal customers are critical to micro-environments. Leaders in the CU must understand and pay attention to clearly identifying customers and focusing on their needs.

Between Category Relationships

While the framework and constructs are valid, they align with CU literature and there is substantial evidence from the MBNQA data set, there is an opportunity to further refine the tool and measurement of Leadership, Customer Focus, and Operations within the CU environment. The purpose of refining the tool is to reduce potential multi-collinearity. This was noted when the removal of the strategy variable changed the significance of multiple items in the analysis. While not a problem in this initial study with a smaller sample size, deeper exploration is needed based on findings.

Results from this study suggest that all three variables met the multi-collinearly tolerance value threshold that was set at .2. This indicates that each of these variables had more than 20%

unique attributed. However, should a higher more stringent level have been selected such as .25, both Leadership and Customer Focus would have been close to being considered collinear with respective values of .246 and .253 respectively. In comparison, operations had a .43 toleration level or 43% unique variable construct. This provides a clue that the CU environment has unique features compared to prior environments studied.

A review of the survey items identifies some overlap in the constructs. For example, in the leadership construct, one of the survey items asked whether their "learning function has an established governance process that engages key leaders within the organization to prioritize needs and work to be done." This item is similar in nature to a customer item which asked to what degree "our learning function has a process for determining key internal customers." In a CU, which uses resources and priorities of the business, the governance mechanism includes customers. There are numerous other examples to consider, but the point is made that deeper understanding of discriminant validity is required.

This alignment and finding reinforces prior findings that CUs and other sub-systems that "operate within the context of a larger organization face many challenges" (Foster, Johnson, Nelson, & Batalden, 2007, p. 339). By the very nature of a CU serving as the means to fulfill an organization's purpose the CU is subservient to the goals, direction, and purpose of an organization. With this frame, gaining leadership buy-in also has a customer focus and vice versa.

These types of stories are inherent in much of the literature. Whether Aquas University, the failure of NHS University, or even the journals from the learning leader at Motorola, each story required leadership support to get started and their success was dictated by the climate within the organization. The NHSU story reveals a painful reality for Learning Leaders who attempt to lead

with a conflict vision between senior leadership and an inability to get a majority of senior leaders to sponsor work (Taylor, Bell, Grugulis, Storey, & Taylor, 2010). Aquas University reveals the amazing success when the ultimate customer, the CEO, is actively engaged and can make things happen including funding (Paton, Peters, Storey, & Taylor, 2005). The diaries from the Motorola learning leader shared the need to be both a leader and address customers as learning initiatives launch (Allen M. , 2002). The overlap in these constructs is critical to address and the findings suggest further refinement may be possible.

Based on these findings and analysis, recommendations will be described later that include refinement of the instrument based upon the findings in this section. This refinement would be helpful for both issues of practice and of theory. As an academic tool, it could be further refined to identify ways in which key practices can inform CU practice. As a practical tool, this will provide a means by which to evaluate current practices through a specific lens determine most essential features that will drive CU success.

Results Category Variations

This section of the chapter highlights a finding worth additional exploration beyond the hypotheses. Specifically, it relates to variations above and below the results composite metric. Recall that the dependent variable of this study, was a composite metric. That composite was comprised of five survey items. These are included in Appendix A.

As part of creating the composite metric, I noticed large mean differences between the sub-components of the composite. For that reason, I determined it was important to evaluate whether statistical significance was achieved between the differences of each of these sub-measures and the composite metric. In doing so, I would understand where CUs might feel they

perform better or worse than peer organization. Two items had a statistically significant variation from the overall results composite. Impact on the most important outcomes scored statistically significantly above the composite and cost effectiveness scored significantly below the composite. While note a concern, I have decided to dig in for a more thorough inquiry.

Impacting the Most Important Outcomes.

Learning Leaders rated a focus on the most and impact important outcomes of the organization as statistically significantly higher than the composite is an interesting finding (p value = .01). The question is worded as "Our learning/talent development function makes a significant impact on our company's most important outcomes and objectives." This item suggests two parts to this response. First, the learning leader must know what is most important and secondly, it must act on those items.

Given the Learning Leaders participating in the CU lead the learning function for their organization, it should be expected for them to know the outcomes and work towards them. To fulfill the purpose of the CU, this information needs to get to these leaders. They will use it to frame how to think about work to be done. While I did not gather specific practices, it is indicated in these data that some process must exist. It could look as simple as reporting to the CEO and getting key information. It could be gathering buy-in from a group of senior leaders. To know outcomes and have an impact it implies there are practices worth exploring underneath it.

This information is particularly important considering earlier findings on the importance of the Leadership category to the CU environment. The components of Leadership include governance, communication, and buy-in. Good Learning Leaders will not just understand the priorities and then focus on delivering the right solutions through their own personal lens or experience. Instead, they will understand and work to gain buy-in for the solutions through the

needs and preferences of the leaders and the employees. Leaders who focus purely on strategy versus expressed needs will not have the buy-in or impact to achieve results.

This could manifest itself negatively in many ways including being too future focused on technology such as Augmented Reality, without support for cost. It could also be something as simple as refusing to come off an opinion for how it was solved in another organization. These types of on tracked leaders could have a negative impact, given these findings.

CUs Struggle with Cost Effectiveness.

Learning Leaders felt their biggest opportunity for results was cost efficiency as they related it lowest on the sub-item scale (59.38). This item is worded as "Our learning/talent development function can deliver services at a lower cost per person than peer organizations" This result has a statistically significant lower response from the mean composite score (p-value < .0*01*). This item calls attention to the fact that Learning Leaders feel they have limited control of cost with comparison to key peers.

Some will argue that this finding should be attributed to the fact that true scale cannot be achieved in small organizations or even with a decentralized organization. However, Learning Leaders have an impact on cost by the very nature of their role in which they can focus on service level agreements with vendors, processes, costs, and negotiate deals. While I did not conduct those analyses to look at small versus large organizations, it is important not to dismiss a component of these problems as one of scale. The direction of the question focuses on peer organizations, so responses should be focused on competitors or similarly sized companies.

Again, this comes back to the role of the Learning Leader and CU as one of fostering buy-in for approaches and helping to prioritize to achieve the most impact. As hard as this may be, providing visibility to business leaders on cost effectiveness and potential vendors can be

helpful in finding key negotiating points. Many vendors offer solutions that CUs can use and while Learning Leaders may have preferences cost effectiveness can often be the difference between a program launching or not. While a small organization may pay a higher cost, with buy-in from leadership and strategic selection of solutions, value will be emphasized over cost. It further reinforces that fact that Leadership can have a significant impact on results.

Implications for Practice

At the outset of this study, I suggested that the results would have a significant impact on professional practice and educational leadership. As expected, several findings emerged in these areas of professional practice that could benefit organizations and individual practitioners working in a CU environment. With clear results that Leadership, Operations, and Customer Focus can improve CU effectiveness, there are numerous activities at the CU and individual level that can yield positive results. It also identifies ways in which the CU fits within the broader educational ecosystem. I will cover these practical findings first starting with CU level implications and then transition into individual Learning Leader implications and professional development focus.

Implications for CUs

For organizations, this study yields clear findings and actionable items. CUs should put processes into place that drive Leadership, Operations, and Customer Focus MBNQA categories forward in that very specific order. Included in this section are very specific tactics that can be put in place. There are a few quick tactics that organization can do quickly to apply the finding from this research.

The first step for any organization is to focus on a baseline assessment process. While there is no perfect time to start, an ideal place would be prior to the start of a long term (5- or 10-year) strategic planning process. That strategic planning process offers the opportunity to identify opportunities and align goals in the cycle and rhythm of the organization. Including the formation and alignment of CU goals to organizational imperatives helps create stakeholder buy-in which has already been identified as critical. This also provides visibility for cost needs or process changes aligned to broader priorities. However, started and informed is better than waiting years for the perfect time.

This assessment process will look different based upon each organization. As has been described in the literature there are many types of CUs with varying levels of reputation. One way that emerging CUs or those with low reputations can advance is by means of a self-assessment by Learning Leaders with their direct reports. Using the survey instrument provided in Appendix A, Learning Leaders and their direct reports could conduct a brutally honest self-review of their opportunities by collectively agreeing on where they believe that their CU scores (-3 to 3) on the categories of Leadership, Operations, and then Customer Focus. Areas that emerge at 2 (Agree) or below should be prioritized for improvement in the priority order of Leadership, Operations, and then Customer Focus.

For organizations are more mature and developed, the Leadership, Operations, and Customer Focus items can be converted into a survey tool and distributed among key stakeholders. Gathering the data, reviewing and then prioritizing action items can be gathered from a broader set of participants and in a more open environment. Again, areas that emerge at 2 (Agree) or below should be prioritized for improvement in the same priority order of Leadership,

Operations, and then Customer Focus. Included below are a few ideas to improve practice in each of the key areas. They are based on the literature reviewed from the CU environment.

Improving Leadership

Recall that the Leadership process domain is focused on elements that relate to constructs about how leaders lead. This includes things such as work alignment to vision and values, clear strategy, and direction with stakeholder buy-in, routine evaluation of the CU areas of responsibility, and clear governance processes to prioritize work. This is the most important category for improving results and CUs already perform better on this than other domain measures.

For those that want to make an impact quickly, a way to align, engage, and manage processes, programs, and even overall scope of the CU is to engage senior leaders as sponsors for the programs or in some version of governance committee. Perhaps the best contrasts of what is possible with senior leader buy-in are the contrasting case studies covered from Aquitas University and NHSU. Aquitas was established with CEO buy-in as a special project and received funding, support, and got significant traction to help advance the strategic direction (Storey & Bungartz, 2005). The NHSU had no sponsorship or direction and ran into mounting stumbling blocks until after years of struggle, it was finally closed (Taylor, Bell, Grugulis, Storey, & Taylor, 2010). Meister (2005) describes the use of gaining senior leadership sponsors of leadership programs and providing pseudo-titles as “Dean” of the Leadership College. This allowed for learning leaders to engage with them more regularly providing insight and updates. Actions taken provide better alignment of the work, visibility of outcomes, and most importantly help prioritize and evaluate areas of work based on the needs and direction of senior leadership.

This process will not be natural as it often involves making the business leader the center of the show versus the Learning Leader. The role of the CU is then to become the back office and help the leaders do their job better. This involves establishing reporting, communication, timelines, and other details that may not naturally come to someone that starts in learning and development. It also involves moving from taking individual requests to identifying processes to escalate lower-level requests for some new program or activity to the appropriate leadership level. These conversations are not easy, but they help to provide better planning, insights, alignment, and support.

Improving Operations

A second finding covered in this chapter is that Operations has the second largest impact on results. The Operations category focuses on how the work will be done including documenting processes, creating a safe work environment, incorporating suppliers and partners into how to deliver, and focusing on managing key processes on a routine process by utilizing data. Data from this study suggest that cost effectiveness proved to be statistically significantly lower in results than other results composite domains. A lack of operations focus could be the culprit for many of these CUs.

This type of work can often feel unnatural to Learning Leaders that have a background in education and learning and development, but there is key literature that can contribute recommended practices for improvement. One suggestion for CUs that score lower in this domain involves evaluating the roles and responsibilities needed on the team to deliver the work. Wheeler & Clegg (2005) frame out potential work structures including a project manager to maximize the expertise of the skilled learning professional. Works such as Running Training Like a Business (Van Adelsberg & Trolley, 1999) emphasize that efficiencies can come by

focusing on different components of the work, rather than in the delivery of solutions but in the strategic thought about needs for the business. Aligning specific work internally allows for savings by outsourcing certain transitions. For larger CUs it could be better to have an operations analyst on staff to document processes, capture data, and help leaders focus on continuous improvement.

Another way to make improvements would be to engage a process improvement (PI) team within the organization that focuses primarily on business results. Most organizations have a PI team and Learning Leaders can make the case that they need support to help map and document processes including how to gather efficiency data and where current performance gaps exist. With support from the PI team, it would be fairly easy to establish top tier priorities, followed by lower tier priorities. Depending upon bandwidth and existing workload of the team, someone from that department could likely help set a cadence of improvement and teach the team to identify where the most impact would be. Organizational resources are scarce, so if support is not available, the learning leader can take this matter into her/his own hands by upskilling through additional education. More will be discussed in implication for practitioners.

Improving Customer Focus

The third finding covered in this chapter is that Customer Focus has the third largest impact on results. Customer Focus places emphasis on identify and listening to customers, managing customer relationships, measuring satisfaction and responding to complaints. As described in this study, there is some overlap between leading effectively and helping to manage customer relationships. There are still unique practices that can be put in place to help advance customer focus.

One recommendation to manage these relationships can occur via an advisory council. Literature regarding the advisory council (Kalman, 2008) suggests good two-way dialogue and getting a better understanding of what both the CU and the business leaders need. The cross-functional dialogue also helps to facilitate better coordination of activities. Providing this group of leaders an opportunity to share feedback on existing programs will lead to further questions and priorities. It will be endless work. However, it is hard to overvalue a group of leaders with clear insight into needs and strategic priorities to address. Getting leaders engaged in the process to help can significantly build credibility and momentum, including at minimum, the perception that cost effectiveness is top of mind. To select the cabinet, think carefully about the key customers, ongoing work, and include the finance department.

This process also will not be very easy. Inviting leaders who already have competing interest for funding into a dialogue about requests, complaints, and visibility into learning requires a strong process and clear objectives for the advisory council. In addition, action items post council meetings requires translating comments into action will require organization savvy, and a good understanding of the business.

Implications for Learning Leader Professional Development

While the results of this study require that leaders of the CU place emphasis on designing processes related to Leadership, Operations, and Customer Focus, there are Learning Leader specific implications. To effectively execute processes in the significant MBNQA domains, new skills and leadership competencies must be learned. The new capabilities will serve as accelerants to the process by matching capabilities with needs of the organization.

To better understand the needs of leaders, I evaluated this study's survey items with a focus on leadership capability rather than the MBNQA construct. This provided a new version of

the mapping that included three specific categories and items from each statistically significant construct to be included in those categories. These new hybrid categories were then mapped to an evidence-based set of behaviorally anchored leadership competencies, the Korn Ferry Leadership Architect (KFLA). The KFLA is used in executive hiring assessments, interview guides, development, and performance feedback. The result of this effort suggests that three specific leadership competencies will help a CU to navigate the environment: Optimizes Work Process, Plans and Aligns, and Customer Focus. While they are not a one-to-one mapping for each construct, they do heavily influence specific categories and align closely with the descriptions offered in the instruments. This mapping is included in Appendix B.

Leadership

Leadership as identified by the MBNQA includes close customer knowledge. This includes being highly focused on aligning work, governing use of resources and ensuring clear focus on the organization's needs with stakeholder buy-in. Plans and Aligns from the KFLA is described as "planning and prioritizing work to meet commitments aligned with organizational goals." Learning Leaders would do well to focus their efforts on ensuring they understand the business, have the big picture, and are clear on the corporate strategy. With these pieces of knowledge, they can help to frame the work and to understand how they can plan and organize their work to achieve the priorities of the organization.

Resources in planning an aligning work are numerous and need not be limited to CU specific cases. Learning Leaders can learn from various types of planning that exist and apply within their own environment. Whether Governance Planning, Strategic Planning or Scenario planning, CU leaders can take and apply skills and tools from other environments to help navigate key relationships, critical decisions, and the needs of customers.

Operations

Operations as identified by the MBNQA includes a focus on continuous improvement, measuring key processes, and using data to make informed updates and changes. Optimizes Work Processes from the KFLA is described as "knowing the most effective and efficient processes to get things done with a focus on continuous improvement." Learning Leaders would do well to focus on enhancing this capability because of its importance to maintain low cost, but also because the MBNQA framework is built upon the design and redesign of processes.

CU leaders have a lot of choice in this category. Many operational excellence models exist, and finding certification is easy. CU leaders can choose from skills such as Lean, Six Sigma, PDSA or other frameworks that can help. For some even pursuing an MBA will help put a new lens on the work to be done. Either way, emphasis can be placed through certification or degrees.

Customer Focus

Operations as identified by the MBNQA focuses on identifying customers, listening to them, and making adjustments based upon feedback. Customer Focus from the KFLA is defined as "building strong customer relationships and delivering customer-centric solutions." Learning Leaders should place emphasis on this category because internally key customers can make or break the CU. While resources may be limited, a little bit of listening can make a large improvement.

CU leaders will need to focus on listening strategies in tandem with the HR function. There are many different capabilities that can help here including understand more about

measurement and evaluation in the education space to taking business school courses on service models. As a leader, just getting started is probably the best that can be done in this space.

Effectively Crafting a Development Plan

To codify a leader's personal emphasis, one tool in the pocket of most CU leaders is a professional development plan. Professional development planning can help frame intent of goals and organize thinking, and timing while promoting accountability. Learning leaders can utilize this tool to track direction and progress. Furthermore, to get buy-in and support Learning Leaders should share their goals with their direct supervisor. Whether that supervisor is the CEO or other C-Suite Executive, this emphasis on personal accountability for improvement will set the tone for the CU. Once development goals are set, the CU leaders should establish a routine touchpoint focused on individual feedback aligned with the culture of the organization.

Professional Organization Implications

One last group that has significant stake in the findings is professional organizations. These organizations such as Human Capital Media, Society for Human Resources, and the Association for Talent Development engage with professionals in the CU space in knowledge sharing, professional standards and certification, and continuing education and professional development. The results learned from this study provide a strong foundation from which to enhance these ongoing activities for Learning Leaders who are members of these organizations.

A recommendation for professional associations would be to utilize the evidenced based categories of Leadership, Customer Focus, and Operations as a means of organizing their narratives of the CU work. Whether it be the way they organize conferences, capture and share stories, or put out collateral, focusing on these topics will continue to reinforce what is critical. In

taking this action, rather than just telling a story, Leadership, Customer Focus, and Operations would be organizing mechanisms of these stories and continually reinforced. These stories could clearly articulate key elements of the categories and highlight specific practices and approaches to help advance processes within the organization. This type of approach could weave into routine publications or communications.

One example of this effort could be through the SHRM website which categories best practices. For the section on learning and development, the organization could focus primarily on identifying a series of best practices focused around Leadership, Customer Focus, and Operations processes. This section could be constructed of best practice summaries and case studies that help support Learning Leaders through their development process.

As the professional development level, and perhaps easiest, the framework of leadership competencies will help align frame success in the CU environment. As such, a simple exercise would be evaluating their competencies models to ensure they have incorporated the most important categories. A second level effort would be mapping their existing professional development opportunities to they should review existing libraries, routine publications, and other sources of content to highlight and frame these points for learning leaders. As an organization, they may be able to emphasize their literature through this lens, or even update or expand their professional development programs to support these findings.

One concrete example of how a professional organization could update their practices is Chief Learning Officer Magazine. The magazine runs a routine conference that has contributed a development program for future Learning Leaders. The program, known as the CLO Accelerator program, could be updated to review and discuss case studies for Learning Leaders. The content of the case studies would be rooted in key learning from this study. Evaluating practices through

this lens and identifying quick wins and toolkits could help advance Learning Leader development quickly. It would provide them with the strongest possible development aligned to evidence that exists.

Educational Leadership Implications

As mentioned at the outset of this study, the findings would have a significant impact on how CUs could work within the broader ecosystem of educational leadership. This remains even more prescient with additional clarity on the broader impact. The findings in this study that the Leadership and Operations categories from the MBNQA framework have a strong impact on results establish some key connections between the CU and traditional K-12 organizations interact. I will cover this in this section and include real examples I have seen.

CU Leadership

Implications for partnership between the corporate education function as a continuation of the traditional education ecosystem are tremendous. Through using the Leadership processes from the MBNQA framework which include identifying needs, getting senior leader buy-in to direction and priorities, and routinely evaluating how the function is working Learning Leaders can have a far greater impact on the firm they represent and community in which the company operates. To do this incorporating leadership from CUs, secondary education, and higher education into a consortium to support the needs of the business can help brand equity while also a strong workforce capability.

Learning Leaders can lead the way by creating their own or by identifying existing organizations to participate in. One that exists to support these interactions either for health care is the DFW Hospital Council. Together they convene leaders across the continuum of education

and Learning Leaders to help foster partnership. Even in cities without such an academically rich cluster of school will benefit from such an arrangement and reap a strong benefit.

Literature shows that these partnerships have led to disruption in education by building early workplace skills development, creating new pathways for earning degrees, and by changing and disrupting the way institutions teach (Zimmerman, 2018). These types of partnerships only emerge when Learning Leaders find ways to engage the leadership of the organization and the academic environment jointly.

One example of the benefit of strong partnership is building future pipelines for positions requiring minimal certification. These efforts address both career pathways and economic mobility. Organizations can partner with secondary school districts to offer unique benefits and certification programs that produce ready to work 18-year-old employees with limited additional expense. In some states, like Texas, school accountability reports benefit tremendously from these partnerships. I have seen this example bear out twice in two different health care organizations (Texas Health/Atrium Health) with benefits for the community, but more importantly unique career pathways.

The specific programs I have seen were built to provide pipelines for entry level role in health care acute care and medical office settings. At the end of the program individuals would take an exam and earn a certification (CMA/CNA respectively). The Learning Leader was not responsible for education or content design, but instead for serving as a broker to collaborate between the academic institution, the workforce need of the business, the community and implications. Ultimately, I was authorized to sign agreements for an academic affiliations between the two business entities. High School students were trained in practical skills by techs in the work environment, and provided soft skill training and interview prep via the CU. In the

high school they learned the book knowledge to prepare them for critical thinking. Due to the success of this program school districts offered the opportunity to the organization to help craft and design the next certification needed.

This same type of effort can take place within higher education with a focus on partnership for skills-based training. For existing workforces, recent literature has focused on creating this corporate learning/traditional education partnership a critical driver of success for employee engagement and retention. The focus of the literature was on the as the demand for portability of skills reaching an all-time high (Leimbach, 2019). It's almost counterintuitive but, this investment in "certification" of a skill which can be taken anywhere and is fundamentally recognized shows an investment in people. While some CUs may bring credibility (i.e. Deloitte, or GE), many others have the opportunity to partner with higher education institutions for certificates and continuing professional development credits which bear a recognizable brand and signify credibility. As community leaders, creating these partnerships naturally establishes the company as a critical business and active contributor to the community.

One of the most powerful benefits of corporate education infusing themselves in the broader ecosystem is the disruption of the single mental model for career and education pathways. Instead, having a CU contribute to professional success now might afford a low-income student to go straight to work after high school with a certification, then utilize tuition reimbursement to earn a degree and transition to a new role. Finally, they may continue to earn certificates until they have new skills that earn them a new position. The traditional debate of the purpose of education as one of critical thinking or job readiness takes a backseat when considering that the entire ecosystem can help contribute to both. Some will rise through the technical ranks and earn additional degrees and certifications having entered the workforce early

in their lives via certificate programs. Others will pursue higher education to advanced degrees before entering an organization and elevating within an organization via management training the pursue via organizational programs. These are only two of hundreds of permutations of pathways that are possible. The goal in educational leadership should be to maximize these pathways to ensure opportunities are laid out and available for people during their careers. These results clearly emphasize the need for learning leaders to translate their work into clear actions which not only engage the business but traditional educational leadership to ensure the broadest picture of education and human development is presented and not as only a narrow set of one or two pathways.

CU Operations Implications

Beyond using Leadership to create a more robust lens of "what's possible and when" in an individual's education, the Operations category process provide the simplest and way to establish a quick and ready partnership between CU leaders and traditional education leadership, primarily from higher education. In the Operations category Learning Leaders must clearly understand how they can deliver solutions effectively and efficiently. This coupled with the finding that CUs also feel they struggle to manage cost compared to peers provide an opportunity to higher education to offer their infrastructure and human capital expertise to CUs at a lower price point than for profit competitors. Two examples can clearly articulate how these partnerships can work.

A prominent example I have seen and experience is the school of business at Queens University creating a physician leadership development certificate for participants. Using existing faculty, and a discount as well as reduced course credit requirements, the program has served as the delivery arm for the Center for Physician Leadership & Development at Atrium

Health. At approximately $2,000 per participant, the program offers its local brand name and reputation as well as program fees that are half the price of typical consulting organizations that might provide content.

This aligns with some key literature which emphasizes that specific types of CUs can leverage the value brought from a partnership with a business school (Maybar-Plaxe, Allen, & Renaud-Coulon, 2014). Not surprisingly, the types of CU most likely to partner with a business school are focused on quality improvement, executive development, and skill-based training. Business schools bring experts in management theory, strategy, and quality operations to share their expertise with leaders who are often trained in a technical area and need a better understanding of the business. In this model, business schools serve as the delivery arm of management 101 and fundamental leadership techniques to support an individual's leadership level. Academic institutions also receive the benefit of gathering brand loyalty and free advertising for their full degree programs, while remove access issues by reducing barriers via lower cost or less units required.

Infrastructure can also be a critical component of the CU and traditional environment. Companies need to make key decisions on where to invest for core operations and support functions such as education can be limited. One recent piece of literature has focused on the need for partnership in this space to reduce some of the barriers. For example, Amazon is now supplying free cloud computing courseware to help higher education students earn certification, but also available to partner institutions to build more effective curriculum (Rutherford, 2021). This type of partnership offers a joint benefit in that the company receives content to help given students an incentive to participate and connect theory to reality, the school produces a ready

workforce, and the CU/company are available to operate more effectively and efficiently with less investment in retraining or certification.

In summary the CU emphasis on Leadership and Operations provides a robust opportunity to cement a strong relationship between the CU and the broader education continuum. Learning Leaders must take advantage of the opportunity in order to maximize their effectiveness and delivery solutions in a way that is efficient. Together the CU and traditional education can produce remarkable change to the lives of the workforce.

Academic Implications & Suggestions for Future Research

Beyond practical significance, the completion of this study brings clear academic implications. First, this study adds to a small body of literature body of literature, framework, and methodology. Second, this study addresses unresolved questions in the literature. Finally, the study offers new questions for further exploration.

Adding to a Small Body of Literature

At the outset of the study, I identified two of the most pertinent challenges within the CU literature. I described these challenges as a small body of literature and inquiry methods. Recall that literature on these functions and institutions is typically written about in trade publications and professional organizations. In addition, most CU literature takes the form of qualitative inquiry and focuses specifically on Narrative Research, Case Study, or Phenomenology (Paton, Peters, Storey, & Taylor, 2005). This study adds a new perspective to the small body of literature with a unique inquiry type. Having gathered input from over fifty leaders of CUs and conducted statistical, the literature now has an added domain of the MBNQA framework, a qualitative

inquiry. The perspective on this is broad and the results should be considered consequential and directional for future studies in the space.

Resolving the Unresolved Questions in the Literature

Beyond the literature, this study has responded to multiple calls by previous scholars to address key mechanisms within the learning and CU environment to address day to day type operations that lead to success (Lui Abel & Li, 2012; Rademakers M. F., 2014). In fact, this study directly responds to them stating specifically that focusing on three specific sets of practices from the MBNQA framework can account for up to 80% of the variation in results. Primary CU emphasis should be placed on Leadership, Customer Focus, and Operations. Key questions to answer for each CU can be pulled directly from the MBNQA framework and addressed.

It is important to note that this study represents the beginning of future literature in this domain. There are additional variables that remain unexplored (Workforce Focus and MAKM) that others could posit are important. It also opens the door for future research questions which emerge from the findings within the current instrument and the model. These will be explored next.

Future Research Questions for Exploration

The third academic benefit is future research questions to be answered. This study only presents the tip of the iceberg for future research. Numerous questions now emerge for exploration within this existing data set as well as for future consideration based upon the findings.

There are two related questions that remain with the existing data set. The first question relates to the items and their relationship to results on the survey. Specifically, the question is "which items are most predictive of results?" There are 16 items from the constructs of Leadership, Customer Focus, and Operations each with sub-scale items. If there is a subset that is more highly correlated with successful results, this provides even further refinement of tool and instrument. This question overlaps with a second question that can be explored regarding simplifying the assessment. That second question is "are there ways to further modify the existing survey to better reflect the unique identity of Leadership, Customer Focus, and Operations?" These questions link directly to the VIF measurements. While Operations had a 43% unique variable measurement, Leadership and Operations were both about 20% lower. They made the cut for this initial study, but they provide a key insight that further refinement of the instrument could occur. Finding a way to make each variable even more unique could provide benefits of two kinds. First, it could simplify or reduce the instrument. This would make completing it easier. The second could be articulating more specific points that demonstrate Leadership versus Customer Focus. This helps as well, even if the survey gets longer, but the specific practices provide insight into focus areas.

Within this data set are additional opportunities to continue exploration. Key outstanding questions for discovery could link demographic data to results, key areas of differentiation in overall outcomes, or even effectiveness of practices within the fundamental independent variables.

In addition to studies related to the existing data set, additional exploration of new data could be considered. One area of focus should relate to learning leader competence in the competencies laid out in prior findings. Career paths for learning leaders are varied and most

come up through the learning function. Adding a focus on business process, strategic thinking, and relationship building are critical. The current level of learning leaders in this space would be an interesting study, particularly if cross walked to existing program for development from professional industry and academic institutions. This could expose potential opportunities for further development of programs.

A second area of focus for this study, using the same instrument could be to focus on CUs within specific industries that seem to have higher turnover and more dependency on service, such as retail, healthcare, food and beverage industries or other types of service oriented business. Examining these narrow areas could provide deeper insights into how to better maximize the effectiveness of the organization.

Chapter Summary

In this chapter, I have discussed the overall findings of my research. In summary, I have closed many academic and practical gaps in knowledge through this study. I have demonstrated that three specific sets of practices from the MBNQA (Leadership, Customer Focus, Operations) can contribute significantly to the overall results of learning, talent development, and CU environment. Future research questions with this existing data set can be explored to hone and refine the instrument and help narrow in on additional practices for learning leader focus.

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Appendix A – Survey Instrument Categories and Items

CATEGORY	SURVEY ITEMS
DEMOGRAPHIC QUESTIONS	1. Do you lead the learning/talent development function? a. Yes b. No 2. What is the size of your parent organization? a. 1-999 employees b. 1,000 – 2,499 employees c. 2,500 – 4,999 employees d. 5,000 – 9,999 employees e. 10,000+ employees 3. How large is your current learning/talent development function? a. 1-9 employees b. 10-49 employees c. 50-99 employees d. 100+ employees 4. Does your organization have a corporate university? a. Yes b. No 5. Our approach to learning is a. Centralized b. Decentralized c. Federated
LEADERSHIP	6. Please select the degree to which the below statements describe your current practices. (Strongly Disagree – Strongly Agree) • Our learning function closely aligns it work to the organizational vision and values. • Our learning function maintains effective communication channels with the learning team, key partners, and key customers. • Our learning function has a set strategy, goals, and objectives for future direction which senior leaders have participates in building and buy into. • Our learning function is action oriented with a focus on achieving the mission of the organization • Our learning function regularly evaluates all of its areas of responsibility and capabilities and uses findings for improvement and innovation. • Our learning function has an established governance process that engages key leaders within the organization to prioritize needs and work to be done.

STRATEGY	7. Please select the degree to which the below statements describe your current practices. (Strongly Disagree – Strongly Agree) • Our learning function has a strategy development process which creates short term and long-term action plans directly tied to the organization's plans. • Our learning function strategy achieves balances between competing stakeholder needs. • Our learning function has a process for strategic plans to be deployed, tracked, and measured. • Our learning function has a process to recognize and respond to shifts in organizational strategy and to rapidly adjust to the new plans. • Our learning function regularly develops its own set of workforce plans in alignment with strategic plans. • Our learning function strategic plans incorporate how we will do the work (i.e. internally, fully outsources, partnerships etc.).
CUSTOMER FOCUS	8. Please select the degree to which the below statements describe your current practices. (Strongly Disagree – Strongly Agree) • Our learning function has a process for determining our key internal customers. • Our learning function has a process for listening to current and future internal customers in order to determine needs and make improvements to the work being done. • Our learning function has a process to manage customer relationships. • Our learning function has a process for capturing and responding to internal customer inquiries and complaints. • Our learning function has a process for measuring and reviewing internal customer satisfaction.
OPERATIONS	9. Please select the degree to which the below statements describe your current practices. (Strongly Disagree – Strongly Agree) • Our learning functions has defined key work processes that are documented and made available for internal customers to see. • Our learning function processes include integration and management of suppliers, partners, and strategic vendors. • Our learning function processes include a focus on management of cost, efficiency, and effectiveness. • Our learning function measures and reviews its key documented processes using data to ensure continuous improvement. • Our learning function works to create a safe environment that ensures content experts, suppliers, and participants are aware of the expectations of them in the learning process.

BLUE ATTITUDE	10. Please select the degree to which you agree with the following statements. (Strongly Disagree – Strongly Agree) • I prefer the color blue to other colors. • I like the color blue. • I like blue clothes. • I hope my next car is blue.
RESULTS	11. Our internal customers are satisfied with the work our learning/talent development function does. (0 – 100, Strongly Disagree → Strongly Agree) 12. The products and services our learning/talent development function provides routinely deliver expected results. (0 – 100, Strongly Disagree → Strongly Agree) 13. Our learning/talent development function processes are efficient and effective. (0 – 100, Strongly Disagree → Strongly Agree) 14. Our learning/talent development function makes a significant impact on our company's most important outcomes and objectives. (0 – 100, Strongly Disagree → Strongly Agree) 15. Our learning/talent development function can deliver services at a lower cost per person than peer organizations. (0 – 100, Strongly Disagree → Strongly Agree)
STUDY SUMMARY	16. To receive a copy of the summary results, please enter your preferred e-mail address.

Appendix B – Survey Instrument to Leadership Competency Mapping

Survey Item (Category)	Leadership Competency	Definition
• Our learning function has a process for measuring and reviewing internal customer satisfaction. (Customer Focus) • Our learning function regularly evaluates all its areas of responsibility and capabilities and uses findings for improvement and innovation. (Leadership) • Our learning function measures and reviews its key documents processes using data to ensure continuous improvement. (Operations) • Our learning function has defined key work processes that are documented and made available for internal customers to see. (Operations) h	Optimizes Work Process	Knowing the most effective and efficient processes to get things done with a focus on continuous improvement.
• Our learning function has a process for listening to current and future internal customers in order to their determine needs and make improvements to the work currently being done. (Customer Focus) • Our learning function closely aligns its work to the organizational vision and values. (Leadership) • Our learning function has a set strategy, goals, and objectives for future direction which senior leaders have participated in building and buy into. (Leadership) • Our learning function is action oriented with a focus on achieving the mission of the organization. (Leadership) • Our learning function has an established governance process that engages key leaders within the organization to prioritize needs and work to be done. (Leadership) • Our learning function processes include integration and management of suppliers, partners, and strategic vendors. (Operations) • Our learning function processes include a focus on management of cost, efficiency, and effectiveness. (Operations)	Plans & Aligns	Planning and prioritizing work to meet commitments aligned with organizational goals

• Our learning function has a process to manage customer relationships. (Customer Focus) • Our learning function has a process for capturing and responding to internal customer inquiries and complaints. (Customer Focus) • Our learning function has a process for determining our key internal customers. (Customer Focus) • Our learning function maintains effective communication channels with the learning team, key partners, and key customers. (Leadership) • Our learning function works to create a safe environment that ensures content experts, suppliers, and participants are aware of the expectations. (Operations Focus)	Customer Focus	Building strong customer relationships and delivering customer centric solutions.