PUBLIC TECHNOLOGY PROJECTS:

INITIATING MULTI-STAKEHOLDER COLLABORATION

A Thesis

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Jillian Marie Burgos

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Abstract

of

PUBLIC TECHNOLOGY PROJECTS:

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In large-scale public IT projects stakeholder engagement is essential to creating a user-centered IT solution, yet effective engagement can be difficult to manage. For this thesis project, I identified research-informed stakeholder engagement recommendations for the Midstate Education Data Collection System (MEDCS) process. I also interviewed MEDCS project leaders to analyze any barriers— real or perceived—to adopting these types of stakeholder practices. I used a series of interviews to pose engagement recommendations and gauge the responses of MEDCS leadership on the viability of these recommendations. My findings are that key barriers to adopting research-informed stakeholder engagement recommendations include a longstanding culture of distrust and insufficient staff resources. These findings have implications for legislators and others looking to authorize major state IT projects.

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Date

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Chapter One

INTRODUCTION

Purpose and Background

The Midstate Department of Education (MDE) is responsible for the oversight and administration of programs serving Midstate's most vulnerable residents. These Aid programs aim to provide food, shelter, cash aid, child-care assistance, and more. The MDE and county program administrators uses technology systems to track, monitor, and assist eligibility determinations for these programs. The Midstate Automated Education Systems (MAES) are one of the most used systems by counties, used to aid county eligibility workers in documenting and determining eligibility to need based child-care programs. In this thesis, I focus on collaboration techniques in public technology development for MEDCS.

Public technology solutions can benefit from a client-centered design approach. Accordingly, a common way to gather the client perspective is to engage a wide variety of stakeholders. When a governmental entity develops a public-facing technology using public funds, the project is subject to scrutiny by both the legislature and the public at large. Project decision-makers must find a balance between transparency and too much public scrutiny. On one hand, a high degree of engagement and transparency might strengthen project outcomes. On the other, too much transparency might invite public scrutiny that can delay a project by introducing new stakeholders and interrupting the decision-making process. For this thesis project, I will identify research-informed stakeholder engagement recommendations for MEDCS process and interview MEDCS

project leaders to analyze any barriers— real or perceived—to adopting these types of stakeholder practices.

I chose MEDCS because it is a multi-stakeholder project with a historically contentious collaborative process. During the 2019 budget process, stakeholders voiced their concerns about the collaborative process thus far and proposed language to mandate more stakeholder engagement. Additionally, researcher Nutt (2002) analyzed 400 information technology projects and found a fifty percent failure rate which raises additional concerns about project success. According to Nutt, the definition of a project failure is an incomplete project, a project with only partial implementation or a project that did not produce the expected result. Nutt suggests most project failures are due to a project's inability to engage stakeholders and notes that, in some cases, decision-makers do not strategize stakeholder engagement at all. Strengthening the process design of the stakeholder engagement potentially benefits the advocates, state, and project outcomes.

Multi-stakeholder engagement is often a challenging and necessary step in developing statewide automation systems. Stakeholder engagement in governmental system development faces barriers including the state's confidential procurement process, defining roles amongst stakeholders, and adapting with changing policy. To explore how to make stakeholder engagement in governmental design more effective, I address the following research questions in this paper: (a) What practices have previous studies found to be effective for initial engagement with complex stakeholder groups, and (b) what factors (real or perceived) do organizational leaders/decision-makers encounter that support or hinder their adoption of these identified practices?

Midstate Automation Education Systems (MAES)

The MAES are the county-administered case management systems that support Midstate's public assistance programs by providing eligibility determination and benefit calculations for program recipients. The MAES provide support for the administration of need based programs including county-adminstered programs for foster youth, childcare assistance, food and nutrition programs, and gneral assistance and relief. Currently, the MAES is a collection of three separate systems that do not interface or share data. This is can be problematic for researchers and counties in tracking recipients from county to county.

MEDCS Development

Under federal direction, Midstate must create one unified MAES system, which will go by the name MEDCS. The project uses a phased approach to combine and modify the system to meet the needs of all counties. The MEDCS project projects the first pilot of the new system will occur in the largest Midstate county sometime in 2021 and a full state-wide rollout will be complete by 2023. This process will include the development of the system and migration from older systems to the new MEDCS. According to the stakeholder engagement description on the MDE website (2020), MDE is wholly committed to actively engaging all stakeholders from the beginning of this process, fostering trust through transparency, visibility, and collaboration.

Stakeholder Engagement

Robust stakeholder engagement is a crucial step in developing IT solutions that have a human-centered design (Ahmed, 2017), and this includes advocate input. The new

MEDCS has a drafted and agreed upon governance structure with decision-makers from each represented county system and the Midstate Department of Education (MDE). The formal governance structure identifies stakeholders as the counties who will be administering the programs. There is currently no formal process for advocates or other outside entities/stakeholders to participate in the system development process.

Applying Evidence-Informed Practices at Initial Engagement

The Midstate statute Assembly Bill 1181(AB 1181) mandates quarterly meetings between state representatives and advocates during the development of the MEDCS IT solution. Although quarterly meetings are a good start to ensuring regular engagement, there may be other practices that could help the development process and encourage useful collaboration between stakeholders and the project development team. Using evidence-informed practices, I will propose techniques for initial engagement that may encourage interactive collaboration.

This applied thesis analyzes existing literature and interviews with key project leadership to identify and test the acceptability of some evidence-informed stakeholder engagement practices. I aim to bridge the gap between theory and practice by exploring evidence-informed practices in informal semi-structured interviews with state agency administrators to determine their political and organizational viability.

Thesis Structure

This thesis began with a problem identification and background on the MEDCS project. In chapter two I will analyze existing literature and evidence-informed practices

related to stakeholder engagement in complex projects. Chapter three will explain the methodology for the project. Then, in chapter four, I will analyze the interview responses to evidence-informed practices for acceptability among a small group of decision-makers on the MEDCS project. In Chapter five, I will conclude the thesis with lessons learned and areas of future research.

I will use analytical tools acquired during my time in the Public Policy and Administration program at the Midstate State University of Sacramento to conduct this thesis. I also am currently working at MDE in the automation branch and hope to use the knowledge and skills from my education for this applied thesis project. Ultimately, I aim to connect theoretical research on collaboration with real experiences, the overarching goal of which is to provide the MEDCS project with a research-based approach for initiating stakeholder engagement.

Chapter Two

LITERATURE REVIEW

Stakeholder engagement is a project practice that has been implemented and refined by project management professionals since it emerged as a significant area of research during the 1980's. Exploration into the current practices of stakeholder engagement begins with the most commonly used resources by project managers today. The most common resource of process and understanding for project managers is the Project Manager Body of Knowledge (PMBOK) (2004). The PMBOK is a guide that serves as a set of standards for the project management community.

In 2013, the PMBOK 5th edition was released; this edition added a new knowledge area titled *stakeholder management*. Some research suggests the PMBOK understanding of stakeholder interaction has been superficial and does not represent the current needs of industries to properly engage their stakeholders (Eskerod & Huemann, 2013). In 2017, the PMBOK published a 6th edition that changed the process of *stakeholder management* to *stakeholder engagement*; this change signified an adapting point of view that assumes meaningfully engaged stakeholders can provide value to projects. Since the PMBOK only briefly touches on the concept of stakeholder engagement, this literature review will synthesize peer-reviewed academic articles, books, and professional guides that shed light on important aspects of stakeholder engagement that may be missing from current project management practices.

Project management skills are transferable from one project to another, in many different fields and contexts (Project Management Institute, 2004). Therefore, I chose to

look at stakeholder engagement research based in different fields, countries, and public/private settings. In this section, I identify four common themes in existing literature that I use to guide the development of initial stakeholder recommendations for the MEDCS stakeholder engagement process introduced in Chapter one. These themes include: (a) levels of stakeholder participation, (b) stakeholder motivation, (c) process mapping, and (d) charter development.

Levels of Stakeholder Participation

Initial searches on stakeholder engagement brought me to a body of research on Corporate Social Responsibility (CSR) (Jimena, 2010; Lim et al, 2007; O'Riordian & Fairbrass, 2013; Lim & Greenwood, 2017). According to Jimena (2010), CSR is the private-industry notion that companies are obligated to create meaningful outcomes that rely on two-way dialogue with stakeholders. Relationships with stakeholders vary by project based on unique factors such as politics, efficiency, time, money, and security. In this section, I will explore methods used to identify stakeholders and define participation methods.

Research based on case studies from Taiwan technology development projects sought to group stakeholders into categories to explain their participation level (Lim, Tan, & Pan, 2007). Lim, Tan, and Pan (2007) studied approaches to e-government development with three aspects of stakeholder management in mind: identification of stakeholders, recognition of differing interests among stakeholders, and selection of organizational response to these interests. Lim, Tan, and Pan found four groups of stakeholders named in multiple case studies. They called them the engineers, dissidents,

seasoners, and skeptics. The researchers used Frooman's Typology (Figure 2) of relationships between stakeholders and firm to develop the four categories of stakeholders. Identifying the stakeholders allows the project to determine the level of participation each group should have.

Figure 1 *A Summary of Frooman's (1999) "Typology of Relationships between Stakeholders and Firm"*

		Is the Stakeholder Dependent on the Firm?	
		No	**Yes**
Is the Firm Dependent on the Stakeholder?	**No**	**Low Interdependence** Neither the firm nor the stakeholder depends on each other.	**Firm Power** The stakeholder is dependent on the firm, but the firm is not dependent on the stakeholder.
		Management Strategy Since the firm is not dependent on the stakeholder for resources, it is likely to be indifferent towards stakeholders' concerns, that is, the firm should be almost oblivious to their needs and expectations.	
	Yes	**Stakeholder Power** The firm is dependent on the stakeholder, but the stakeholder is not dependent on the firm.	**High Interdependence** Both the firm and the stakeholder depend on each other.
		Management Strategy Since stakeholders control resources pivotal to the survival of the firm, the firm has an immediate mandate to attend their needs and whenever possible, manoeuvre them into interdependent relationships.	**Management Strategy** Since both the firm and the stakeholder are reliant on each other for resources, the firm will attempt to negotiate with stakeholders to arrive at mutually acceptable solutions.

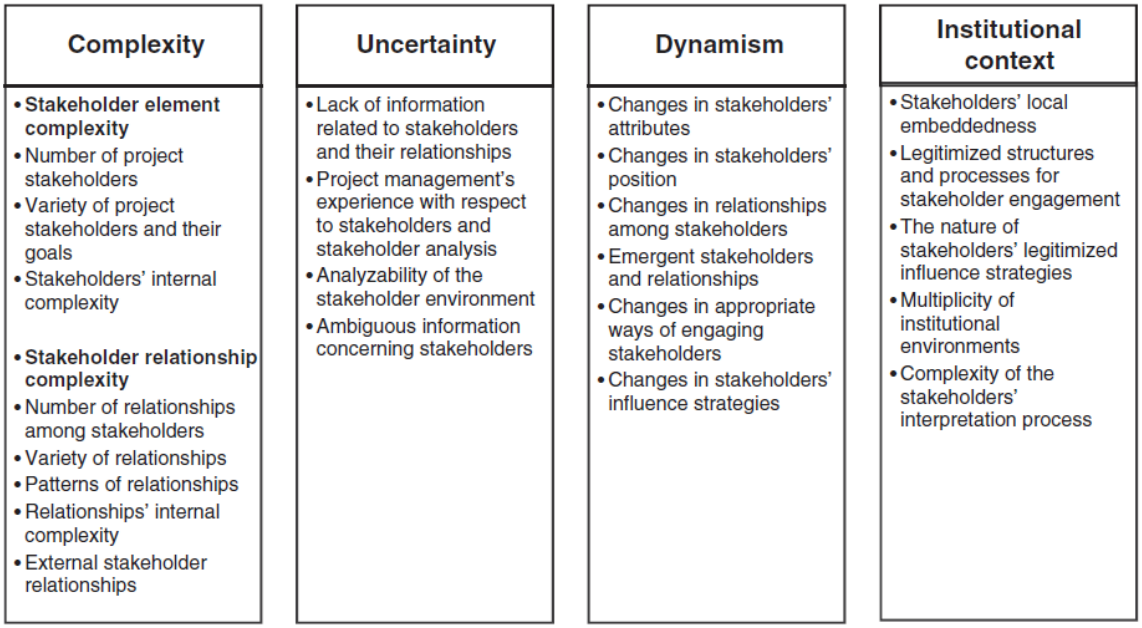
Source: International Journal of Electronic Government Research. Copywrite 2007 by IGI Publishing. (3, 2, p. 7)

Lim, Tam, and Pan recognized the implications of Taiwan shutting out certain stakeholders for opposing beliefs; Taiwan encouraged stakeholder input to appear

transparent but effectively shut stakeholders out of development processes. Although the concept of categorizing stakeholders to determine participation levels is transferable, I will need to be attentive to how the political climate of Taiwan differs from that of the U.S. as I use this model for this thesis project. Still, Frooman's Typology remains a promising and adaptable method for analyzing stakeholders.

Early research on stakeholder management (Cleland, 1986; Eskerod, Heumann, & Savage, 2015) explores options for categorizing the stakeholder landscapes to develop a strategy that encourages stakeholder mobilization. However, Aaltenen and Kujala (2016) criticized this early research exploring stakeholder mobilization strategies, saying it lacks understanding of the complexities of the stakeholder landscapes. Aaltenen and Kujala (2016) used a systematic review of stakeholder management literature to develop a framework for characterizing and classifying project stakeholder landscapes. The factors they used to analyze stakeholder landscapes were complexity, uncertainty, dynamism, and the institutional context (Figure 2).

Figure 2 Framework for analyzing stakeholder landscapes

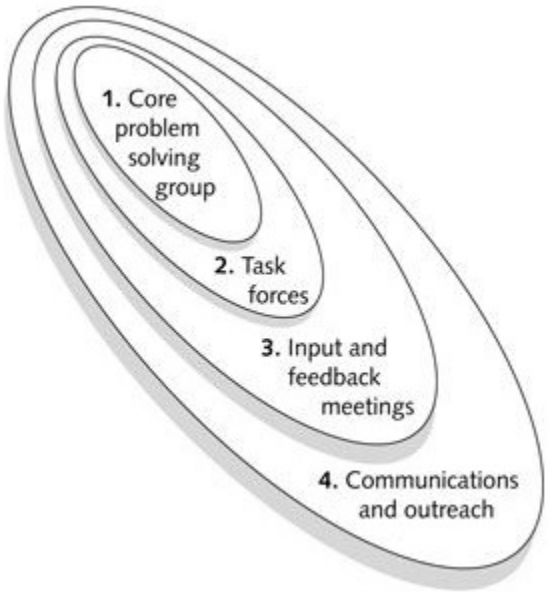


Source: Towards an improved understanding of project stakeholder landscapes. Copyright 2016 by International Journal of Project Management (p. 1541).

Assessing the four categories allows project managers to develop processes for engagement based on the best fit for the stakeholder landscape.

After the stakeholders and landscapes have been assessed or categorized, project managers are tasked with managing the levels of participation in each stakeholder group. Straus (2002) proposed a model that project managers can use as a tool to think of participation on four different levels. Straus calls this framework, the *rings of involvement* (Straus, 2002, p. 48-49) (see Figure 3).

Figure 3 Straus Rings of Involvement



Source: How to Make Collaboration Work: Powerful ways to build consensus, solve problems, and make decisions. Copyright 2002, by David Straus. (p. 48-49)

Straus (2002) found there were four kinds of stakeholders: those with formal power, those with power to block, those affected, and those with ability. He also found that involvement of all stakeholders at every step of the process would be cumbersome and would hold back the project decision makers. Straus encouraged involvement on some level with all stakeholders, arguing a stakeholder can do more damage to the project by being left out than by being included. He argued that process leaders/facilitators can use the Rings of Involvement to keep stakeholders involved while establishing boundaries.

Stakeholder Motivation

The need to determine stakeholder motivation is a common theme in the CSR literature (Jimena, 2010; Lim, Tan & Pan, 2007; O'Riordian & Fairbrass, 2013, Lim &

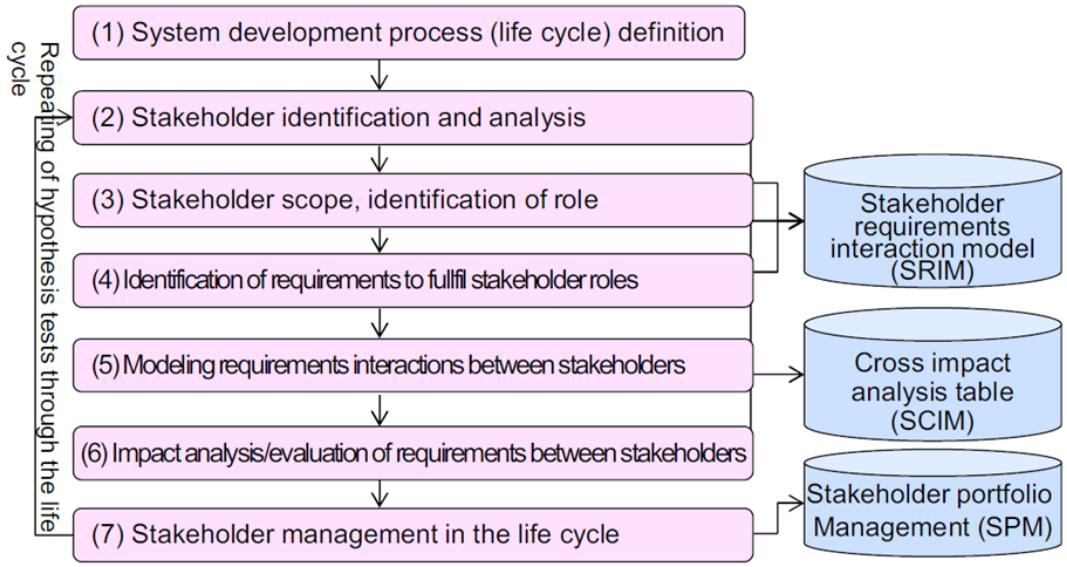
Greenwood, 2017). Jimena (2010) penned an article that described both the importance of CSR and stressed that organizations are often unprepared to initiate conversations and should be engaging with stakeholders. Lim and Greenwood (2017) used surveys to rate stakeholder responsiveness and engagement strategy to achieve CSR goals. This study was unique in that it used the opinion of the stakeholders to rate effectiveness. The key finding of this study is the stakeholder opinion that the process was equally important to the value achieved.

Connecting business value to the process design is an important goal of CSR (Lim 2007). Using case studies of pharmaceutical companies in the United Kingdom and Germany, ORiordian and Fairbrass (2013) proposed a framework to develop strategies that could help CSR professionals be more innovative with their stakeholder relationships. The emphasis on importance of the stakeholder and business value is a key part of their framework. Another key finding of this study was that the companies found creating a process design chart early in the process was the most workable approach with their stakeholders.

The conventional method of stakeholder analysis takes steps to identify stakeholders, then capture the requirements and main objectives of those stakeholders. However, the stakeholders often change throughout the system development life cycle. Nomura, Aoyama, and Kikushima (2015) proposed a method that enables continuous stakeholder management from requirements to the end of the life cycle (see Figure 4). This method proposes the project management team model the interaction of stakeholder requirements that change, evaluate the interactions with a risk/contribution evaluation

matrix, and identify conflicts between stakeholder requirements and the system requirements. The research was proposed and tested using a large-scale e-government system based in Japan. This method proved to be useful in Japan and is worth considering for projects with high stakeholder turnover.

Figure 4 The Stakeholder Management Process according to Nomura et al



Source: Nomura, Aoyama, and Kikushima (2015) A Continuous Stakeholder Management Method throughout the System Life Cycle and its Evaluation. Copywrite 2015, IEEE Computer Society. (p. 90)

Certain tools and techniques used in stakeholder engagement give participants a better sense of success on a project. There is extensive research on techniques and tools such as critical *path analysis* (Turner, 2010), which is a complex analysis of task dependencies on a project that allows the project team to prioritize and set deadlines. Quantitative tools are important to explore, however when working with people and personalities there are other factors that are not quantifiable that affect the progress of the

project. Davis (2017) explored the stakeholder perception of project success using systematic literature review findings, interviews, surveys, and a proposed multiple stakeholder model. From the interviews, Davis (2017) found that understanding stakeholder motivation helps process designers make better stakeholder engagement frameworks. Understanding the motivation changes the dynamics and roles and responsibilities of the stakeholder in the process design.

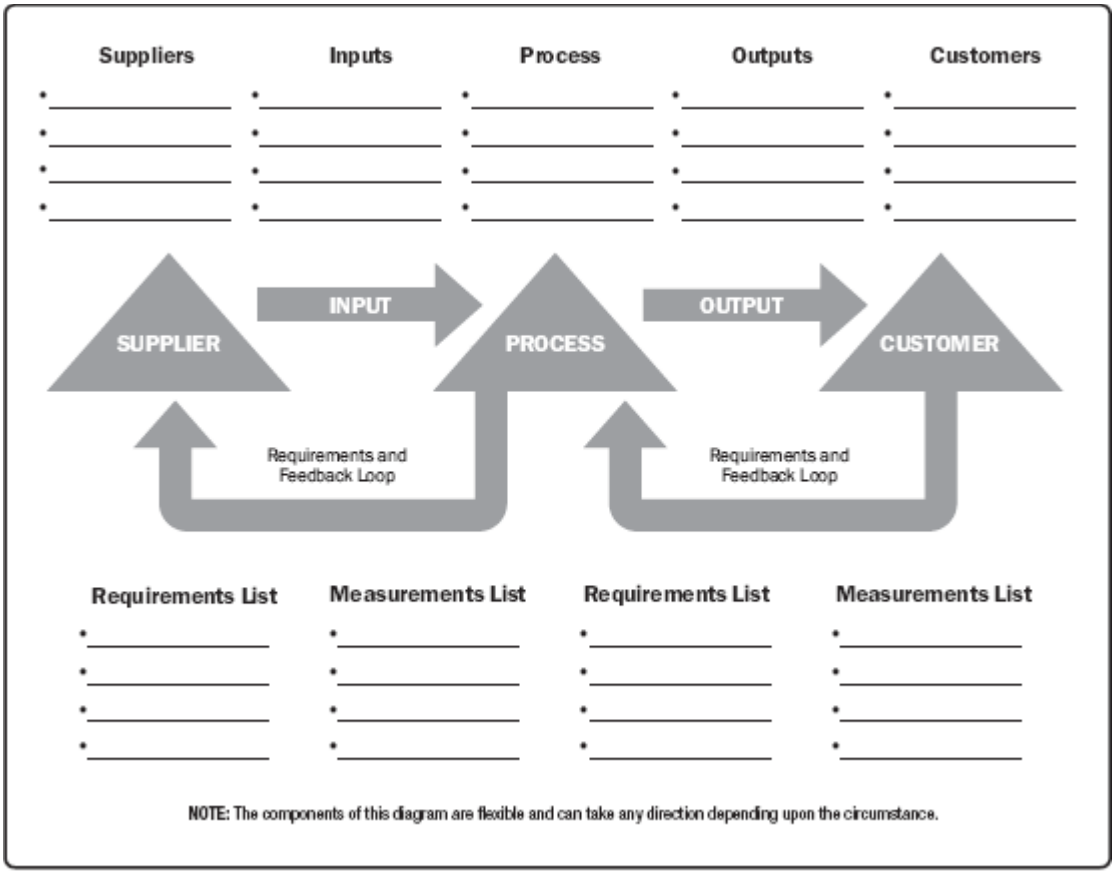
Researchers Rowley and Moldoveanu (2003) also argue that desire can motivate mobilization to express an identity; the motivation is identity-based rather than interest-based. They used social movement and social identity theories to construct a model of stakeholder group action. They explain that the networks surrounding the stakeholder influence the stakeholder's perceived interests. This research challenges the notion that interests drive stakeholder action. The motivation for the group to act changes the focus of the group and challenges the assumptions in traditional project management stakeholder engagement theory, which assumes stakeholders participate for a common purpose or expected outcome.

Process Mapping

Project managers handle disseminating plans and processes to stakeholders to ensure each stakeholder understands how and when they should be involved in the project. There are multiple ways to display a process, and it is important to find a process map that fits the needs of the stakeholders and project team. The Supplier, Inputs, Process, Outputs, Customer (SIPOC) model (Figure 5) is used in both the PMBOK (2004) and the Six-Sigma Lean guide (Meran, John, Roenpage & Staudter, 2013). This

model is widely used to display key players, intended outcome, and process in the simplest of terms. According to Meran, John, Roenpage, and Staudter (2013), the SIPOC is useful for large-scale or high-level process design to provide viewers with a hawk-eye view of the project.

Figure 5 Suppliers, Inputs, Process, Outputs, Customer (SIPOC)

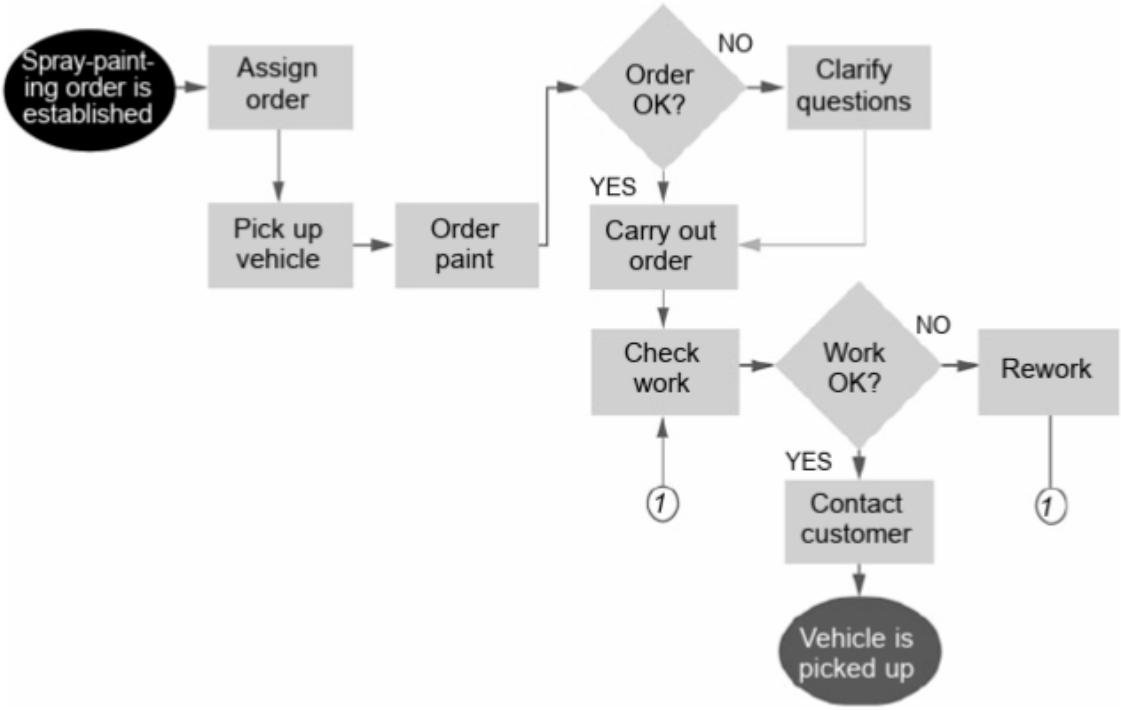


Source: Six Sigma+Lean Toolset : Mindset for Successful Implementation of Improvement Projects. Copyright 2013 Springer Publishing (p. 36).

The high-level process flow chart is used in both the PMBOK (2004) and the Six-Sigma Lean guide (Meran, John, Roenpage & Staudter 2013). This flow chart aims to guide high-level understanding of a process. This display uses color coding or font style

to show detailed grouping, such as actor or process categories. The flow chart can use more detail, depending on the needs of the project (Figure 6).

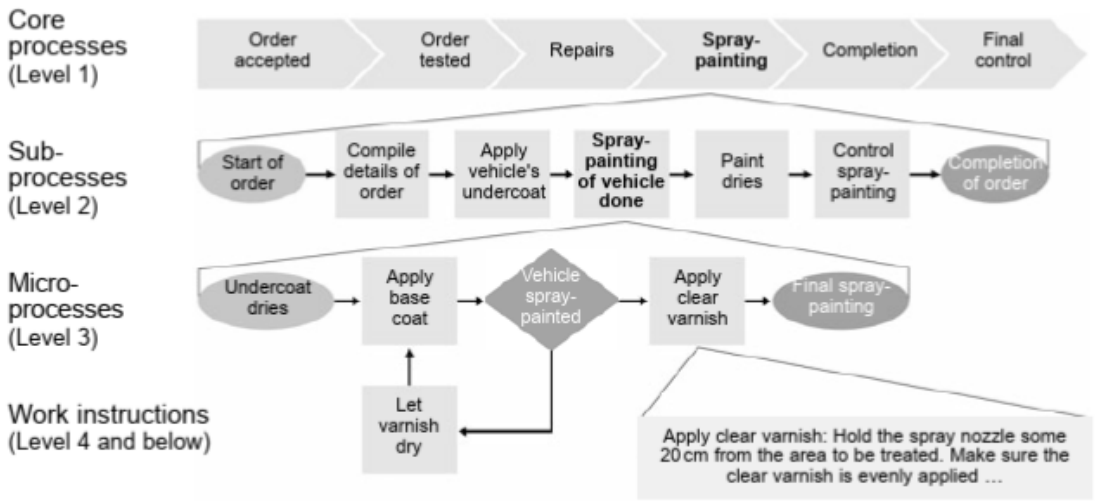
Figure 6 Process Flow Chart



Source: Six Sigma+Lean Toolset: Mindset for Successful Implementation of Improvement Projects. Copyright 2013 Springer Publishing (p. 184).

The swim lane diagram (Figure 7) is in both the PMBOK (2004) and the Six-Sigma Lean guide (Meran, John, Roenpage & Staudter 2013). The swim lane diagram is helpful in separating roles of actors in the process. It is also useful in illustrating next steps and if/then processes. According to Meran John, Roenpage, and Staudter (2013), this method can be difficult for some readers, depending on the complexity of the process.

Figure 7 Swimlane Diagram



Source: Six Sigma+Lean Toolset: Mindset for Successful Implementation of Improvement Projects. Copyright 2013 Springer Publishing (p. 187).

The use of visual representation of a process not only helps convey a process to diverse groups of stakeholders but is also a useful tool in understanding if a project process is working in the way intended. Using a map like figure 7 allows the project facilitator to analyze the processes and frameworks in a very clear streamlined manor. For a large group of diverse stakeholders, using a visual representation of stakeholder engagement processes may help clarify complexities of the process and start a conversation on the effectiveness for all parties involved.

Charter Development

In this literature review I have identified bodies of work that speak to who should be involved in major projects, how much they should be involved, and how to communicate the process visually. Next, I will explore a key area of early stakeholder

engagement designed to set the stage for an effective collaboration once everyone is in the room and ready to take action. A commonly used reference tool early in a stakeholder engagement process is the group or meeting charter (Watenpaugh, 2014; Sverdrup, T. E., Schei, V., & Tjølsen, Ø. A., 2017). In this section I will consider elements used in developing an effective charter and research related to managing the charter.

Watenpaugh (2018) describes the use of a charter in the following way: "When everyone is on the same page - This is the page!" Essential elements of a charter, according to Watenpaugh include vision or mission statement, the strategic objectives of each of the collaborating partners, value propositions, key team leaders from each of the partners, governance cadence, and core values. In an ideal engagement these elements would suffice, however Sverdrup et al (2016) suggest that, in cases of disruption, the charter could be used to facilitate team performance. They suggest establishing ground rules and devising plans for how to handle disruption early on. Ideally, the group would agree to these rules and follow them accordingly, however in some cases these charters need to be managed.

Gray and Purdy (2018) suggest the use of interveners to manage process design and implementation. Depending on the group dynamics, the use of an intervener acts as a third- party facilitator. According to Gray and Purdy, the intervener often makes it easier for partners to agree to a fair process. From this I gather, that in a multi-stakeholder setting with a history of distrust, such as MEDCS, a third-party would be useful in developing and managing a group charter.

Literature Review Conclusion and Next Steps

Literature suggests IT project failure occurs in over 50 percent of all IT projects; of those project failures, most were due to low stakeholder engagement (Nutt, 2002). Ahmed (2017) analyzed stakeholder engagement in both private and public IT projects and found an overwhelming amount of failure is due to a lack of stakeholder engagement process and a lack of adequate stakeholder analysis. Without an initial stakeholder engagement strategy, MEDCS runs the risk of failing.

In this section, I described strategies and tools to help organize and analyze the stakeholders and stakeholder landscape, identify motivation behind the stakeholder and project participation, and determine effective ways of displaying the process using visuals. Planning and implementing a process design for this collaborative effort may help to ease the tension in the current stakeholder engagement setting and create greater clarity among the stakeholders as to how they can be effective and when in the process they are likely to have their concerns addressed. In this chapter I identify four themes to consider when I present evidence-informed practices to project leaders on methods of initial engagement. These themes include: (a) levels of stakeholder participation, (b) stakeholder motivation, (c) process mapping, and charter development.

Research on stakeholder participation has often centered around categorizing stakeholders. In this project, finding a way to categorize the stakeholders will be crucial because of the programmatic and political diversity of the advocates. Lim, Tan, and Pan (2007) used the Frooman's typology to assess the stakeholder relationship to the firm, while Aaltenen and Kujala (2016) used a similar framework to analyze the stakeholder

landscape. Analysis frameworks for both the stakeholders and the landscape have the potential to help project leaders set up the level of participation needed by the stakeholders on the project.

When I propose evidence-informed options to the MEDCS project team, based on this literature review, I will recommend the MEDCS project address stakeholder motivation by using elements of practices outlined above. My goal is to offer MEDCS recommendations that will produce processes that can be normalized into the culture of collaboration that will continue throughout stakeholder turnover. Normura, Aoyama, & Kikushima (2015) suggest cyclical procedures throughout the system's lifecycle as the most effective process when there is high turnover amongst participants. Therefore, integrating processes that identify stakeholder motivation as a norm for stakeholder engagement will likely produce more effective collaboration.

The initial interviews with project leadership will help me identify the goals and perceived constraints of project leadership in the MEDCS stakeholder engagement. After I gather a list of goals, I will present three recommendations based on this literature review. Then, I will use second interviews with project leadership to introduce the evidence-informed practices and analyze their responses to questions regarding the application of such practices.

Chapter Three

METHEDOLOGY

This applied qualitative thesis uses both prior stakeholder engagement studies and interviews with six leaders who currently work with the multi-departmental IT project MEDCS. The main goal of this thesis is to identify promising initial stakeholder engagement practices and interview stakeholders to assess the adoptability of the proposed practices based on their responses.

Research Design

I first studied existing literature to identify evidence-informed practices and lessons learned from research on initiating stakeholder engagement. After compiling evidence-informed practices, I conducted interviews to explore how six key leaders view the intended outcomes and perceived barriers of this collaboration. Next, I proposed evidence-informed practices for targeting and engaging with stakeholders for the MEDCS project based on the identified goals and constraints of the project. Then, I conducted a second set of interviews with the same group of leaders with questions aimed at how they perceive the viability of the proposed stakeholder engagement practices for the MEDCS project.

Framing the Interview Questions

I use the Bolman and Deal (2013) four frames model to guide my interview questions. Bolman and Deal (2013) propose a four-frame model that provides four perspectives from which to view organizational issues and dynamics. The four frames introduced by Bolman and Deal include: (a) structural, (b) human resources, (c) political,

and (d) symbolic/cultural. I used the four frames model to create questions for the interviews with leaders that aim to evoke thoughtful conversation around different perspectives on stakeholder engagement strategy.

The structural frame assesses the organizational structure needed to support the process. For example, stakeholder engagement strategies must align with current governance systems and receive adequate funding. The human resource frame focuses on how human needs are met and how work is being staffed. Any proposed stakeholder engagement practices must be effectively staffed and managed. The political frame focuses on the politics that may impact stakeholder engagement processes and outcomes. A stakeholder engagement practice may produce promising results in one context, but not fit well with political expectations or constraints in another. The symbolic/cultural frame focuses on how leaders and processes shape the culture within an organization. The stakeholder engagement is statutorily mandated; however, leaders' level of support can influence whether a culture of collaboration takes root.

Interview Logistics

The first set of interviews I conducted was with six key leaders on the MEDCS project. To encourage transparency from interviewees, I ensured these interviews were confidential. To ensure confidentiality, the interviews were done in-person with handwritten notes. The written notes are stored in a locked file cabinet where I will keep them for three years. Transcription of notes and coding spreadsheets are stored in a password protected hard drive. Quotes used in this thesis will be identified only as "respondent" and themes will be identified only in the aggregate.

My objective for this initial set of interviews was to establish expected stakeholder collaboration outcomes and identify any areas of collaboration leaders viewed as needing improvement. It is also important to note that I was only able to spend 30 minutes with each interviewee due to busy schedules; therefore, I chose to keep questions focused and minimal. Appendix A lists all the questions I asked in the initial interview.

I conducted a second round of interviews with the same group of six project leaders in individual 30-minutes interviews. The goal of these interviews was to get feedback on the proposed evidence-informed practices for initiating stakeholder engagement with MEDCS Stakeholders. The practices I proposed were based on the literature review outlined above. The three proposed practices include developing a stakeholder matrix, developing a charter, and introducing process maps detailing processes that involve stakeholders. I sent the proposed practices via email five days prior to the second interview to allow interviewees time to review recommendations. I also started the second interviews with a brief summary of the proposed practices. Appendix B is a copy of the proposed practices sent to interviewees and used again as a hand-out during the interview. After each interview, I transcribed the interview responses and prepared each to be hand-coded and analyzed. I used transcriptions to identify words and phrases repeated throughout the interviews. For the first interviews, I categorized these reoccurrences into common goals and objectives of each interviewee. I used the framework from Bolman and Deal (2013) to analyze leaders' responses to the recommendations during second interviews around four organizational lenses: (a)

structural, (b) human resources, (c) political, and (d) symbolic/cultural. I used open-ended questions designed to identify and understand any perceived barriers to the proposed process design. Appendix C lists the full set of questions I asked each interviewee.

In the next chapter, I analyze responses from MEDCS leaders to better understand the barriers, real or perceived, that may impact their use of stakeholder engagement practices. I then conclude by examining how these findings impact the MEDCS project and the broader public IT development landscapes.

Chapter Four

FINDINGS AND INTERPRETATIONS

In this chapter, I review the themes identified in interviews with project leaders from MEDCS, Midstate Department of Education (MDE), Department of Healthcare (DHC), and the Midstate Sytems Integration Office (SIO). My analysis of the initial interviews includes themes related to the goals of stakeholder engagement, current landscape, and potential constraints identified by interviewees. I then describe the intention behind the evidence-informed practices proposed to interviewees. Finally, I analyze the second interview responses that point to support or barriers, real or perceived, that leaders identified as likely to affect the adoption of these stakeholder engagement practices.

Initial Interview Findings

My initial interviews with project leaders aimed to identify themes in current stakeholder landscape, goals of engagement, and potential constraints. Table 1, below, briefly outlines the coded findings.

Table 1 Themes Identified in Initial Interview

Themes	**# of Coded Occurrences**
Current Landscape: Culture of distrust between stakeholder and project sponsors.	9
Current Landscape: Power struggles and legislative involvement has had a negative impact on collaboration.	11
Goals/Objectives: To create a better structure and facilitation of meetings.	23
Goals/Objectives: To create better client outputs.	6
Goals/Objectives: To satisfy AB 1181.	5
Potential Constraints: Lack of resource availability.	10
Potential Constraints: Assumption that culture of distrust will continue.	8

Current Stakeholder Landscape

In the initial interviews, one reoccurring theme is a culture of distrust between stakeholders and project sponsors in the current stakeholder landscape. Most interviewees began their interviews with reference to a contentious past. According to opinion of some interviewees, the current distrust between stakeholder groups and advocates may stems from decades of mismanagement and a lack of communication between the existing MAES maintenance teams and stakeholders. Previously, when changes were made to the systems, advocates and clients were not informed and this resulted in denial of client benefits because of system glitches. The MEDCS project is making efforts to be more transparent by posting committee agendas and meeting notes on the webpage, however the consensus from the interviews is that the distrust between advocates and project leadership continues to be tense.

Another common theme related to the current contentious landscape was the advocates' use of legislature to mandate quarterly meetings.. Two respondents reference the second time advocates addressed the legislature to state that their needs were not being met by the quarterly stakeholder meetings and the project staff was not doing enough to include them. The use of legislative mandate appears to encourage the culture of distrust among advocates and project leaders.

Goals of Engagement

The most commonly stated goal identified in the interviews is to improve the structure of the engagement. Interviewees used words like effective, efficient, and clearer

when describing the goal of future stakeholder engagements. One respondent said, “we get more done at breaks” indicating the structure and facilitation of the meeting needs improvement. I consider this goal to be a *process* goal, not about the outcome of stakeholder engagement.

Another goal referenced by all six interviewees is to satisfy the requirements of AB 1181. One respondent said “if you read AB 1181, we really only have to include advocates in a handful of activities, we have been going above and beyond to accommodate them (advocates)” Most interviewees spoke in a frustrated tone when they talked about AB 1181 and legislative intervention.

Lastly, four interviewees described the goal of stakeholder engagement as improved outputs for clients. This was an underlying goal for most of the leadership interviewed; it was accompanied by a tone of presumption as if this goal were something that did not need to be said. One respondent said, “of course we want to see stakeholders bringing the real clients to the table, they are our connection to the front lines.” This goal is one of the least referenced but appears to be the underlying reason for all other goals.

Potential Constraints

Throughout the interviews, respondents referenced potential constraints that could be problematic to stakeholder engagement in the future. The constraint that was referenced most often was a concern for resource availability. One respondent said, "where are the resources to make this all happen? We are given mandates to incorporate more stakeholders and essentially have to do more work but are denied any positions to facilitate these engagements." Currently, the MEDCS stakeholder engagement is led by

multiple people from different departments without a designated lead. According to one respondent, earlier budget change proposals have denied the position that would specialize in stakeholder collaboration.

Additionally, the respondents expressed concern about a continued culture of distrust among advocates and the project team. One respondent said, “I’m not certain this will ever be more than what is mandated if we keep having to go back to legislature, I just hope that they learn to understand the urgency.” Changing a culture of group dynamics is an arduous process, however it is possible and will be addressed in the proposed practices.

Proposed Evidence-Informed Practices

After evaluating the current landscape, goals, and potential constraints identified by interviews with project leadership, I proposed three evidence-informed practices that may aid the MEDCS stakeholder engagement. These practices include development of a stakeholder matrix, development and implementation of a charter, and creation of visual representations of process for stakeholders.

A stakeholder matrix allows project leaders to analyze the stakeholder’s influence on the project, impact by the project, and level of engagement needed. This is proposed in the literature review as a way of analyzing participation and stakeholder motivation (Lim, Tam & Pan, 2007). The Midstate Department of Technology recommends using a tool to develop this matrix as a stakeholder grid. This can be helpful when you are dealing with a large number of stakeholders as in the MEDCS Project.

One major goal that the project leaders want to see is more clarity around meeting structure and roles/responsibilities. It is also clear they have concerns about the culture of distrust among advocates and project sponsors. To gain more clarity around these complex roles and objectives, I recommend the development and implementation of a group charter. Additionally, as suggested in the literature review, I recommend the use of a third-party facilitator to implement the charter. A third-party facilitator provides a neutral ground for groups with a history of distrust. This recommendation comes with limitations since the project has expressed difficulty securing funding for a position that would be responsible for these tasks.

Lastly, a common tone project leaders used when talking about advocates was frustration related to the advocates' lack of knowledge of IT development process and the MEDCS project timeline. According to interviewees, this results in advocates focusing on efforts that are either too far in the future or on issues that are not relevant to the current development stage. I recommend the use of process maps to visually show stakeholders how the feedback is planned to provide clarity on how, when, and why they are being involved in each engagement and how their input will be used. This can also be accomplished with a stakeholder roadmap or timeline. Next, I will analyze the responses of leadership to these proposed evidence-informed techniques.

Second Interview Findings and Analysis

The second interviews with project leaders focus on an analysis of the barriers that may hinder the adoption of the proposed techniques explained in the previous section. Table 2, below, briefly outlines the coded findings.

Table 2 Second Interview Coded findings

Themes	**# of Coded Occurrences**
Cultural: Concern that culture of distrust is too strong and will hinder the proposed practices.	11
Cultural: Belief that proposed practices will improve the project culture.	4
Human Resource: The concern that more resources will be needed for these proposed practices to take place.	14
Structural: Proposed practices will improve clarity of project structure.	6
Structural: Belief that project structure will hinder implementation of proposed practices.	1
Political: legislature involvement will hinder the implementation of these practices.	3

Cultural

I identified two conflicting themes in the interview responses. Four interviewees expressed concern that the project culture would be too problematic for these practices to work while four interviewees expressed a belief that the implementation of these practices would improve the project culture, two felt it was a bit of both. This indicates a lack of trust in the proposed practices, however in earlier efforts it is unclear how these practices were implemented and if the problem was the practice or the implementation. Additionally, there were four responses that indicate support of the proposed practices in helping create a more transparent collaborative space.

Human Resource

The most common theme in the interview responses was a concern that the project would not have the resources to implement these proposed practices. One respondent said, “Are you running this? Who is running this? We already put too much time… I just don't have the staff to dedicate to this.” Four of the project leaders pointed

to the lack of resources as the biggest barrier to using the proposed practices and across the six interviews the lack of resources was referenced 14 times. According to all six of the interviewees, without dedicated resources, they will not be in a good position to implement the proposed practices.

Structural

Project leaders shared the opinion that the proposed practices would ultimately help resolve the disorganization of the current meeting structures. One respondent said, "More definition in the meeting intentions and who is responsible for action items will help us get to a place where we are getting the real work done." Four of the respondents reference the use of a facilitator as a promising idea and expressed the belief that a third party would be better suited to develop a charter that advocates would accept as fair. One respondent said, "mapping stakeholders is really something we know we should be doing and we do to some extent… but having a person dedicated to that would make it a lot easier to keep it up." This indicates there is support for the practices themselves and the barriers lie more with who would get them done and how those positions would be funded; the problem is likely not structural.

Political

Lastly, interviewees expressed concern that the use of the legislature by advocates has become a reoccurring challenge and will likely be a barrier to future engagements. One respondent said, "The fundamental problem that we have is that they (advocates) already feel emboldened by legislature, drafting a charter will not change that." In this case, the legislature has acted as a moderator of the engagement, mandating the

collaboration, and requiring legislative updates on progress. This kind of moderation is not effective because of the power between the legislature and project leadership, with one acting also as an oversight body. Judging from the interview responses from all six respondents and their general tone when discussing legislative involvement, project leadership perceives the insertion of the legislature as a distrustful act on the part of advocates and will need to address those feelings to move forward in this collaboration.

Chapter Five

CONCLUSION

MDE relies on technology to administer important programs for Midstate's neediest populations. These technologies are often the result of multi-stakeholder collaborations throughout development and maintenance, to ensure the public needs are met. This thesis set out to identify research-informed stakeholder engagement recommendations for the MEDCS process and interview MEDCS project leaders to analyze any barriers, real or perceived, to adopting these types of stakeholder practices. Three identified practices, based on existing literature, include: developing a stakeholder matrix, developing, and managing a charter, and use of process maps to communicate to stakeholders. My analysis of interviews with project leaders found that some leaders believe the proposed practices could aid the project's stakeholder engagement. However, significant barriers remain, including a concern that the culture of distrust is too strong to make any significant change and that MEDCS lacks sufficient resources to support greater engagement.

Key Findings and Impacts

During the second interview with six project leaders, the second most-referenced barrier was the concern that the culture of distrust would hinder any new practices the project chose to adopt. As a response to the concern over culture, I recommended the use of a third-party facilitator to act as an intervener in the engagement efforts. The interviewees were receptive to the idea of having a facilitator; however, they were concerned with the funding aspects of that decision.

This brings me to the most-referenced barrier from the analysis of interview responses: the lack of resources to implement the proposed practices. All six project leaders expressed a concern that the proposed practices would not be effectively applied without a dedicated resource to focus on stakeholder engagement. After internal project discussions on how to proceed with the ineffectual nature of the stakeholder gatherings, the MDE made the decision to request a Stakeholder Engagement Specialist for the multi-stakeholder automation project. Although this is not a third-party facilitator as recommended, it is a dedicated resource that is described as a *skilled facilitator* in the position description and this person will likely be in a better position to coordinate and manage stakeholder engagement than existing leaders.

Implications for Collaborative Efforts in Other IT Projects

This research suggests one of the biggest hurdles to collaboration in IT development projects is adequate funding. It is common practice for public and advocate groups to campaign for the use of legislative mandates to require state departments to create public meetings or develop opportunities to collaborate. However, when funding is not attached to these mandates, it hinders the ability of the department to find staff who can take on such efforts. In Chapter 2 of this thesis I explored some common practices used to initiate stakeholder engagement, and this is only a small part of stakeholder engagement activities required to conduct a successful collaborative project. I recommend to lawmakers that all new efforts to mandate collaboration also require a funded position to manage the collaboration effort. Additionally, I recommend state departments and public IT projects invest in training staff on collaborative tools and

techniques to aid facilitation of these efforts, especially when additional position funding is not made available.

Limitations and Areas of Future Study

When I started this thesis, the MEDCS stakeholder engagement was already mandated through statute, and the project had already held two quarterly meetings. Many of the proposed tools would be most effective at initial engagement. A limitation that I faced was coming into the project already in progress, so my focus shifted to practices that were, in some cases, reactionary rather than preventative. One reason I chose to continue research on initial engagements is to encourage the project to level set with stakeholders and take a different approach to engagement. I am also aware that the group of interviewees are highly influential in the state IT development space and could influence the use of the proposed practices in future automation projects.

This study concluded by identifying resource funding as the most-referenced barrier in adopting evidence-informed practices. A major complaint among project leaders was the mandate to collaborate while the initial request to legislature for a staff resource was denied. State IT projects would benefit from a study that explores how other mandated collaborations have been funded and whether there are enough resources allocated to effectively collaborate.

APPENDIX A

First Round Interview Questions:

1. What do you see as the intended outcome/s of the advocate engagement?
2. What role do you see your organization playing in this collaboration?
3. What role do you envision the advocates playing in this project?
4. To what extent has the stakeholder engagement met your expectations so far?
5. What is your vision of a successful engagement?
6. What do you think could be done better?

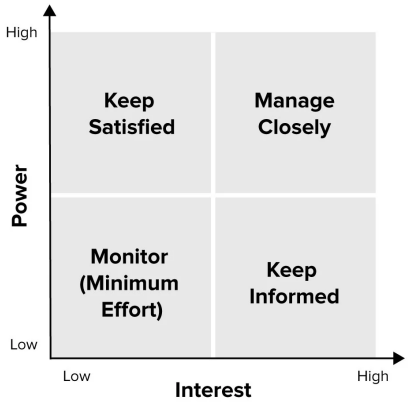
STAKEHOLDER ENGAGEMENT

EVIDENCE-INFORMED PRACTICES USED TO AID STAKEHOLDER ENGAGEMENT

The purpose of this document is to briefly propose three techniques used in stakeholder engagement that may be useful in for early engagement of external stakeholder is future public automation projects.

Stakeholder Matrix

A stakeholder matrix allows the project to analyze the stakeholder's influence on the project, impact by the project, and level of engagement needed. A tool used to develop this matrix is a stakeholder grid. This can be helpful when dealing with a large number of stakeholders.



Development and Implementation of a Charter

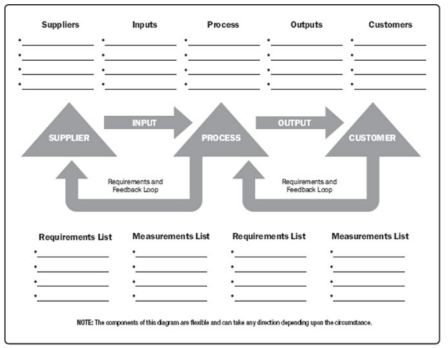
Elements of an effective charter for a multi-stakeholder group include:

- Goals/Objectives
- Who is included in this group?
- What are the expected deliverables/outcomes of this group?
- How is effectivness measured?
- How will this group make decisions?
- When and where will this group meet?
- How will information be shared?
- When/how will this charter be evaluated?

Due to the current cultural landscape, I also recommend the use of a third party facilitator to implement the charter. A third-party facilitator provides a neutral ground for groups with a history of distrust.

Visual Representation of Engagements for Stakeholders

The use of process maps to visually show stakeholders how the feedback is planned will provide clarity on how, when, and why they are being involved in each engagement and how their input will be used. This can also be accomplished with a stakeholder roadmap.



APPENDIX C

Second Round Interview Questions

1. To what extent do you believe these proposed processes fit into the current MEDCS governance structure? Why or Why not?
2. To what extent do you believe these techniques will give advocates a venue to contribute in a meaningful way to the project outcomes?
3. How do you anticipate “checking-in” with the advocates to decide if the process needs to be modified?
4. What, if any, improvement do you believe these processes will provide to stakeholders and potential stakeholders?
5. What resources (i.e. staff, time, supplies, etc.) do you anticipate needing for this type of engagement?
6. To what extent do you think the implementation of these recommendations will change the relationship(s) between stakeholders and the project leaders?

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