PROJECT PORTFOLIO MANAGEMENT AND ITS EFFECT ON ORGANIZATIONAL CULTURE THROUGH THE COMPETING VALUES FRAMEWORK

by

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Abstract

Project portfolio management (PPM) is a growing business practice and field of academic study, and is recognized for positively impacting return on investment (ROI), project success, and organizational performance. Despite this growth, there is inconsistent use of PPM, and minimal research examining a connection between PPM and organizational culture. The problem addressed was a lack portfolio management practice established for the allocation of human resources within a group of retail stores located in the Midwest. The purpose of this study was to examine the effect implementing PPM practice into the human resource allocation process has on the organizational culture. Utilizing the competing values framework (CVF), this paper explored the impact PPM had on organizational culture through a conceptual framework connecting PPM and organizational culture through the common themes of strategy alignment and stakeholder engagement. The goal of this study was to inform business practice, as well as add to the PPM literature by examining the impact PPM had on organizational culture. This study provided insight for project managers, project portfolio managers, and organizational leaders as to the directional effects PPM had on organizational culture to consider when implementing and executing PPM within their organizations, and incorporates the biblical principles of stewardship and the intrinsic value of employees and their importance when considering all aspects of the organization in the strategy making process within the holistic framework of PPM.

Keywords: project management, portfolio management, organizational culture, competing values framework
Dedication

To my father, Dan Wiersma. You instilled in me a love of God, a love of family, a love of sports, and a love of education. There is no greater example of a Godly father, husband, and man that I can think of. I love you dad.
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Section 1: Foundation of the Study

Project portfolio management (PPM) is a growing business practice and field of academic study. Much of PPM literature focuses on its impact on return on investment (ROI), project success, and organizational performance. This study explored the impact PPM has on organizational culture through utilizing a PPM framework that addressed strategy alignment and stakeholder engagement. The goal of this study was to inform business practice in a group of general merchandise retail stores located in the Midwest, as well as add to the PPM literature by examining the impact PPM has on organizational culture.

Background of the Problem

Creating value in a competitive business market is one of the biggest challenges organizational leaders face. In order to create value, companies must link business goals with action by developing a strategy that achieves a competitive advantage (Hsieh & Chen, 2011). Project portfolio management (PPM) is recognized as an effective practice for guiding action, through projects and operations, by aligning business objectives with strategic plans (Killen, Jugdev, Drouin, & Petit, 2012). While project management emphasizes doing work right, PPM’s focus is on doing the right work (Project Management Institute, 2013a). Running successful individual projects alone does not lead to the overall success of an organization. Organizations that are highly effective at portfolio management outperformed competitors in ROI, meeting project objectives, and business focuses (Project Management Institute, 2012). Much of the academic literature
on PPM focuses on its benefits of strategic alignment and decision-making, but there is minimal literature exploring its effect on organizational culture.

Organizational culture is a key driver of company performance (Boyce et al., 2015). There are multiple dimensions and typologies of organizational culture within the literature, Hartnell, Ou, and Kinicki (2011) cite more than 4600 academic articles have been written on the topic since 1980. This study focuses on two dimensions: strategy alignment and stakeholder engagement. Aligning strategy with human resources is highlighted as an important aspect of organizational culture (Ahmadi et al., 2012; Alagaraja & Shuck, 2015), however, 40% of organizations do not have a formal system for strategy execution (Jurecka, 2013). Likewise stakeholder engagement plays a critical role in organizational, project, and portfolio success (Beringer, Jonas, & Kock, 2013). Despite the importance of employee engagement to both PPM and organizational culture a Gallup (2013) study showed that only 13% of employees worldwide consider themselves engaged while at work.

The company selected for this study operates general merchandise retail stores across the United States. Each store operates a portfolio of businesses, projects, and operations. Though the corporation has its own set of strategies for the company as a whole, each retail location has different strategic objectives based on the store. Currently, the retailer does not provide a best practice for planning and allocating human resources at the store level beyond one week. This lack of best practice results in different planning practices by each general manager, leading to inconsistencies among
how stores across the chain align strategy and engage stakeholders in planning and allocating human resources to achieve company, and store, strategic objectives.

**Problem Statement**

Project portfolio management, as a practice, engages stakeholders and aligns organizational strategy. A lack of project portfolio management within an organization can fracture the strategic alignment between business goals and projects (PMI, 2013b). Additionally, firms that lack a formal process for making organizational decisions, such as PPM, have lower cooperation, trust, and confidence among stakeholders (Jonas, 2010). The problem to be addressed was there is currently no portfolio management practice established for the allocation of human resources within each of the retailer’s locations. This leads to inconsistent resource allocation resulting in volatility in payroll performance, which negatively impacts both financial performance and team culture, as well as reduced strategy alignment and stakeholder engagement. PPM, as an organizational practice, effectively aligns the strategy of the organization through the allocation of resources, and engagement of stakeholders (Beringer, Jonas, & Gemunden, 2012). Stakeholder engagement and strategy alignment positively impact organizational culture (Alagaraja & Shuck, 2015). A new approach that incorporates a PPM framework, utilizing a holistic approach to the strategic allocation of human resources, may help improve culture by aligning strategy and engaging stakeholders in the retail stores within this study.
Purpose Statement

The purpose of this study was to examine the effect of implementing PPM practice into the human resource allocation process on the organizational culture within a group of general merchandise retail stores located in the Midwest. Stakeholder engagement and strategy alignment are two key PPM functions. Likewise, stakeholder engagement and strategy alignment are also elements of organizational culture. This study examined stakeholder engagement and strategy alignment, as links between PPM and organizational culture, through the use of a PPM framework for allocating human resources. This study addressed a gap in the project management literature by exploring the link between PPM practice and organizational culture.

Nature of Study

There is much debate in the literature as to the best way to measure organizational culture (Cameron & Quinn, 2011). Creswell (2003) highlights that quantitative methods can be used as a method of inquiry to measure cause and effect of specific phenomena. Likewise he also suggests qualitative methods can aid in exploring topics with multiple meanings with open-ended emerging data. Janicijevic (2011) highlights the use of both quantitative and qualitative research approaches when dealing with organizational culture. He suggests the quantitative approach is based on an objectivist view of the research being conducted, while the qualitative research approach is based on subjective, or emerging observations.

In addition to quantitative and qualitative research, the use of mixed methods research has continued to grow (Johnson, Onwuegbuzie, & Turner, 2007). Both the field
of PM research and the field of organizational culture research have recognized the benefits and growth of mixed methods research for both disciplines. Cameron, Sankaran, and Scales (2015) suggest researchers in the field of project management could benefit from mixed methods research because the field of project management is complex, involving multiple business disciplines. Likewise, Yauch and Steudel (2003) suggest the use of mixed methods research in organizational culture benefits from triangulating both objective and subjective data.

Though the case could be made for utilizing quantitative, qualitative, or a combination of both by utilizing mixing methods, Creswell (2003) highlights the importance of utilizing a research approach that fits the research problem. Because the goal of this study was to understand what effect, if any, PPM has on organizational culture, and does not seek to subjectively define or explain organizational culture of the participants; a quantitative research approach was utilized. This aligns with Creswell’s outline of a quantitative research approach of testing theory through postpositive knowledge claims, a strategy of inquiry through experimentation, and pre- and post-test measurements of attitudes. Additionally, because this study looked at the impact PPM has on organizational culture, the research approach to addressing the measurement of organizational culture was an important consideration. Cameron and Quinn (2011) suggest a quantitative approach is best suited when looking at organizational culture across multiple groups because it allows for consistent measurement. Cameron and Quinn also highlight qualitative research presents difficulties when comparing the organizational culture of multiple groups due to a lack of consistent measurement.
Similarly, a mixed methods approach seeks to blend the two methodologies through both objective and subjective means. This would require extensive time in the field to subjectively define the culture of each store in the study, as well as make comparative analysis difficult to measure across groups. In the case of this study, each store had a different organizational culture, so a quantitative approach was best suited for efficiently exploring the effect PPM has on organizational culture.

Among quantitative research designs, there are multiple approaches. A correlational research design focuses on comparing two variables in order to understand their relationship (Lomax, 2007). A descriptive research design seeks to define the current state of things and is non-experimental (Borg & Gall, 1989). A true experimental design utilizes random group assignments in order to understand the effect a prescribed treatment has on participant groups (Creswell, 2003). This study was not concerned with understanding the relationship of variables and how they correlate (correlational), nor was it concerned with defining naturally occurring, non-experimental behavior (descriptive). Because PPM, as a practice, needs to be applied to a functional organizational group of participants, in this case a group of general managers, a true experimental design with random group assignments was not possible for this study. If participants cannot be randomly assigned, a quasi-experimental design can be utilized. Creswell (2003) describes a quasi-experimental design as one where the principal investigator (PI) assigns participants to treatment groups because random assignment is not possible. However, due to the nature of this study, and its goal of understanding the affect PPM has on organizational culture, it required dependent paired groups, thus
results were compared across a single group in order to measure change. This study did not seek to compare a treatment group to a non-treatment group. The pre-test, post-test, design for this study utilized the organizational culture assessment instrument (OCAI) (Appendix A), developed by Cameron and Quinn (2011), at the beginning and end of the study to assess the impact of implementing a PPM framework (Appendix B) for allocating human resources had on the organizational culture of the stores in the sample group. The sample group of stores included one group of 7 stores, located in the Midwest.

**Research Questions and Hypothesis**

Much of the PPM literature highlights the benefits of PPM with regards to financial and firm performance (PMI, 2015). However, there is minimal literature that looks at a direct connection between PPM practice and its effect on organizational culture. Similarly, organizational culture research has shown a direct link between organizational culture and firm performance (Booth & Hamer, 2009). Dess, Lumpkin, and Eisner (2007) describe organizational culture as how an organization does things, based on shared values and beliefs. They also suggest organizational structure and control systems play a key role in developing the behavioral norms of the organization. The structure and control systems within an organization deal with strategy development and execution. Karnani (2008) suggests that transforming the process for developing and executing strategy into a highly transparent one, and ensuring stakeholders are engaged in the process can affect the culture of an organization. The PPM process provides for both a structure for aligning strategy, and a structure for engaging stakeholders (PMI, 2013b).
The OCAI and CVF were used to measure organizational culture for the hypotheses in this study. Each of the culture dimensions: hierarchical, clan, market, and adhocracy relate to the themes in this study. While the purpose of the CVF is not to provide a depiction of the perfect culture, Cameron and Quinn (2011) highlight the benefits of each culture type, however they do explain that a decrease in the hierarchical score leads to eliminating micromanagement, eliminating unneeded paperwork, eliminating useless procedures and rules, and removing unnecessary constraints. These qualities work against the themes of strategy alignment and stakeholder engagement; therefore, a reduction in the hierarchical score is seen as positively impacting organizational culture.

This formed the basis for research question one.

*RQ1* Does the implementation of PPM practice positively affect the position of the stores culture on the competing values framework (CVF) through a reduction in the hierarchical culture score? The first research question informs the first hypothesis, with the null hypothesis stated as no change between pre- and post-test survey responses.

*Hypothesis 1:* The organizational culture of stores that implement PPM practice will be positively affected by a change in their position on the competing values framework by reducing the average (µ) hierarchical culture score (D). The null hypothesis (H₁₀) is stated as no change in the hierarchical score.

\[ H₁₀: \mu_D_a = \mu_D_b \]

\[ H₁ₐ: \mu_D_a < \mu_D_b \]
Research questions 2, 3, and 4 were directional, in that this study was first concerned with understanding if PPM does have a positive effect on organizational culture, then among the two themes of strategy alignment and stakeholder engagement, does one or the other have an influence on the position on the CVF? While questions 2 and 3 look at each theme individually, question 4 addresses the possibility that both themes together have an effect on organizational culture. These hypotheses are based on Hartnell, Ou, and Kinicki’s (2011) meta-analysis of the CVF. RQ2 Does PPM practice positively affect the market culture through strategy alignment? Hartnell et al. (2011) suggest a market culture is more closely associated with financial and operational effectiveness, which coincides with the benefits of strategy alignment. RQ3 Does PPM practice positively affect clan culture through stakeholder engagement? Hartnell et al. suggest a clan culture is most closely associated with positive employee attitudes and engagement, which aligns with stakeholder engagement. RQ4 Does PPM practice positively affect adhocracy culture through stakeholder engagement and strategy alignment? Based on the CVF, an increase in adhocracy culture implies the cultural impact may be influenced by both market and clan cultures, as an increase in adhocracy culture implies a direct move away from a hierarchical culture. These directional research questions formed the basis for hypotheses 2, 3 and 4.

Hypothesis 2: Stores that implement PPM practice will see an increase in the average (\(\mu\)) market culture (\(C\)) on the CVF through strategy alignment. The null hypothesis (\(H_0\)) is stated as no change in the market culture score.

\[H_0: \mu_{Ca}=\mu_{Cb}\]
Hypothesis 3: Stores that implement PPM practice will see an increase in the average (μ) clan culture (A) on the CVF through stakeholder engagement. The null hypothesis (H₃₀) is stated as no change in the clan culture score.

H₃₀: μₐa=μₐb
H₃₁: μₐa>μₐb

Hypothesis 4: Stores that implement PPM practice will see an increase in the average (μ) adhocracy culture (B) on the CVF through both stakeholder engagement and strategy alignment. The null hypothesis (H₄₀) is stated as no change in the adhocracy culture score.

H₄₀: μₐa=μₐb
H₄₁: μₐa>μₐb

Finally, PPM is concerned with the efficient use of resources, specifically human resources. Research question 5 was focused on the financial performance of the stores in this study with respect to payroll performance, addressing the gap in business practice identified in the problem statement. RQ5 Does PPM practice reduce the volatility of payroll performance through stores making payroll budgets for each month of the study? This was measured by accessing monthly payroll performance for the stores in the study over the three-month period and analyzing whether or not the payroll budget was made for each month. This research question informed hypothesis 5.
Hypothesis 5: Stores that implement PPM practice will have consistent payroll performance by making payroll (P) budgets for each month (3) in the study. The null hypothesis ($H_{50}$) is stated as less than three months payroll budget made.

$$H_{50}: P<3$$

$$H_{5a}: P=3$$

Strategy alignment and stakeholder engagement are two key elements in both the PPM and organizational culture literature and the hypotheses outlined above form the basis for conceptualizing the connection between PPM and organizational culture.

**Conceptual Framework**

PPM is a practice for selecting the right projects, which align with the strategy of the organization, and allocating resources in order to support those projects and achieve the objectives of the company (PMI, 2013b). Much of the PPM literature focuses on improving ROI or project success rates (Lacerda, Ensslin, & Ensslin, 2011); however, there is minimal literature that connects PPM with organizational culture. In order to guide this study, two main research veins were investigated that connected PPM and organizational culture: stakeholder engagement and strategy alignment. Beringer, Jonas, and Gemunden (2012) point out organizations that effectively use PPM are able to align strategy and engage stakeholders. Additionally, Alagaraja and Shuck (2015) highlight firms that improve strategy alignment, and stakeholder engagement, can improve organizational culture. The conceptual framework (Figure 1) establishes PPM practice according to Jonas’ (2010) PPM process design, which includes four key elements to an effective PPM process: portfolio structuring, resource management, portfolio steering,
and organizational learning. The framework then connects PPM to organizational culture through stakeholder engagement and strategy alignment. Links were then drawn from strategy alignment and stakeholder engagement to organizational culture through the organizational culture literature. For this study organizational culture was measured through Cameron and Quinn’s (2011) competing values framework (CVF). While stakeholder engagement and strategy alignment were conceptualized as linking factors in this framework, their importance in both the PPM and organizational culture literature presented possible influencing factors. While there is minimal literature directly addressing PPM’s effect on organizational culture, the common themes of strategy alignment and stakeholder engagement provided a basis for conceptualizing the research problem for this study.

**Strategy Alignment**

Strategy plays an important role in any organization, because it provides direction and drives the organization (Mishra, Mohanty, & Mohanty, 2015). Strategy alignment is a common theme in both the PPM and organizational culture literature. In order to align strategy throughout the organization leaders must link strategy with process, culture, people, systems, and leadership, in order to achieve the objectives of the organization (Tosti & Jackson, 2000). Strategy management is a key function of PPM. PPM provides a holistic framework for organizational leaders to manage strategy (Killen & Kjaer, 2012). Managing the strategy of the organization as a whole, allows for organizational leaders to align the organization in a way that gives them the best opportunity to meet its strategic objectives. Organizations that execute PPM well have a high level of strategy
alignment (Lichtenhaler & Vollmoeller, 2009). Though the prescribed function of PPM is to select the right projects that fit with the strategy of the organization (PMI, 2013b), Kaiser, Arbi, and Ahlemann (2015) suggest the real benefit of PPM is it allows for information to flow across the organization to business units and projects. A key piece of strategy alignment in PPM, therefore, is how strategy is communicated throughout the organization, giving a clear understanding of the process for strategic decisions, and role clarity (Beringer, Jonas, & Kock, 2013).

Strategy alignment is important for business success; however, many organizations do not connect the organizational strategy and organizational culture (Eaton & Kilby, 2015). Organizational culture is a widely researched topic in the management literature, and is often associated with firm performance. There is, however, an increasing amount of interest in the connection between strategy and organizational culture. Arbour, Kwantes, Kraft, and Boglarsky (2014) highlight the importance of fit between the culture of the organization and its employees. Similarly, Hsieh and Chen (2011) emphasize the importance of strategic fit between business strategy and human resource strategy, and how internal HR processes complement each other. While strategic fit between organizational culture and HR strategy can lead to improved business performance, Alagaraja (2013) also points out that alignment throughout the organization can better connect stakeholders with the strategy of the organization. This highlights the pervasive and interconnected nature of both strategy and organizational culture throughout the organization. This connection provided the first vein of the conceptual framework for this study.
Stakeholder Engagement

The engagement of stakeholders is a prevalent topic in both the PPM and organizational culture literature. From an organizational culture perspective, stakeholder engagement is also a widely discussed topic in the literature. Christian, Garza, and Slaughter (2011) highlight stakeholder engagement as a critical element for a productive workforce. Similarly, Saks and Gruman (2014) emphasize the prevalence of employee engagement in the management literature due to the fact that engaged employees perform at a higher level. Stakeholder theory focuses on the fair treatment of stakeholders and its effect on firm performance (Harrison, Bosse, & Phillips, 2010). This fairness approach minimizes conflict among stakeholders that arises from self-interest, positively impacting organizational culture (Harrison & Wicks, 2013).

From a PPM perspective, Beringer, Jonas, and Kock (2013) suggest PPM is an effective approach to managing and engaging stakeholders across the organization. Managing stakeholders is an important function of organizational leaders. Though leaders possess the knowledge to effectively manage stakeholders, Ackermann and Eden (2011) point out that this knowledge is often under-utilized due the absence of a strategic plan for engaging stakeholders within the overall organizational strategy. PPM, as a practice, provides for the inclusion and management of stakeholders as part of the PPM process (PMI, 2013b), giving organizational leaders a strategic approach to stakeholder engagement that is often lacking. While minimizing the potential negative impact disengaged stakeholders may have with regards to strategy execution is one function of PPM, Eskerod, Huemann, and Ringhofer (2015) emphasize the importance of stakeholder
inclusiveness in PPM, beyond just managing engagement. The authors suggest PPM allows for the inclusion of stakeholders in strategy making and execution, and can lead to higher levels of stakeholder engagement. Thus, the focus of stakeholder engagement in the PPM literature, along with the emphasis of stakeholder engagement in the organizational culture literature formed the second vein of the conceptual framework.

Conceptual Framework

Figure 1. Conceptual Framework
Definition of Terms

In this study, the term portfolio was used to mean a collection of programs, operations, or projects, managed collectively, to achieve strategic objectives (PMI, 2013b).

In this study, the term project portfolio management (PPM) was used to mean the coordinated management of a portfolio or portfolios in order to achieve the strategic objectives of the organization (PMI, 2013b).

In this study, the term strategic alignment was used to mean the communication and organization of projects and operations in order to achieve the overall strategic objectives of the company (Kaplan & Norton, 2005).

In this study, the term stakeholder engagement was used to mean the level of internal stakeholder collaboration and involvement in the portfolio management process (Beringer, Jonas, & Gemunden, 2012).

In this study, the term organizational culture was used to mean the enduring beliefs, values and assumptions that characterize both members and the organization (Cameron & Ettington, 1988).

Assumptions

This study assumed the full use of the PPM framework among participants, and the truthful completion of the pre- and post-test surveys, and without bias. In order to ensure full use of the PPM framework, participants were trained on the PPM process and human resource allocation tool that make up the PPM framework. Then participation in the use of the PPM framework was monitored via weekly check-ins with participating
stores with the PI. This study relied on self-reporting in the form of survey responses. Self-reporting is subject to the possibility of both conscious and subconscious bias, which can distort the research data leading to inaccurate measurements and conclusions (Stone, 2000). In order to prevent self-reporting bias among participants, participants were not provided a description of each of the culture dimensions, so as not to predispose them to one dimension or another, which could affect how participants answer the survey questions. In addition, the use of the OCAI, and the competing values framework does not provide for a single right way to answer the survey questions, reducing potential self-reporting bias due to the desire to look good (Stone, 2000).

**Limitations**

This study was limited to one group of general merchandise retail stores located in the Midwest, and is limited to the retail sector. The participants in the study were limited to store leaders at the general manager level. This study was limited to examining stakeholder engagement and strategy alignment as drivers of organizational culture. Though this could be considered what Glesne and Peashckin (1992) describe as backyard research, with potential biases of the PI’s established relationship with this retailer, the experimental nature of the study benefited from the convenience of the sample group, and the support of the district manager and group vice president by obtaining nearly full participation of the sample group through volunteers.

**Delimitations**

This study did not include feedback at the hourly employee level as they have minimal interaction with the human resource planning and allocation process. The
organizational culture literature is broad in scope, and therefore aspects outside of stakeholder engagement and strategy alignment are not considered for this study.

**Significance of Study**

This study addressed a gap in the project and portfolio management literature by focusing on the affect implementing PPM has on organizational culture. Currently PPM literature highlights the growing importance of PPM in organizations for its strategic benefits and rates of project success, however, there is minimal literature that focuses on the impact it has on organizational culture. This research also addresses a gap in business practice at the retail stores of the organization in this study, due to a lack of organizational routine around planning and allocating human resources. This presents the opportunity for a PPM framework to be implemented as a best practice, in order to help store managers better align strategy with action and to engage stakeholders.

**Reduction of Gaps in Business Practice**

Human resource allocation at the retailer in this study was primarily viewed as operational, and not strategic. Because of this, there was no established best practice for the strategic allocation of human resources at the retailer. By implementing a PPM framework into the human resource allocation process in the retail stores of the organization, store leaders will be able to align strategy with action and engage stakeholders, reducing this gap in business practice.

**Implications for Biblical Integration**

Project portfolio management emphasizes the efficient use of resources in order to achieve the strategic objectives of the organization. However there is minimal research
focused on what effect PPM has on the culture of an organization. While utilizing firm resources to achieve strategic objectives is a function of PPM, stakeholder inclusion and engagement is also an important element of PPM (PMI, 2013b). This combination of both the strategic elements of PPM, and a focus on how it affects organizational culture align with two important Biblical themes: stewardship and the intrinsic value of employees.

The Bible offers many examples of the importance of stewardship of the resources given by God. From the beginning, God entrusted the care of all the earth to Adam as the steward of all creation (Genesis 1:29). In the New Testament Peter outlined the concept of stewardship when he said: “Each of you should use whatever gift you have received to serve others, as faithful stewards of God’s grace in its various forms (1 Peter 4:10, NIV). This others-first perspective goes against the agency theory model of instrumental and individual motivation, and replaces it with the intrinsic motivation that all gifts come from God, are owned by God, and therefore one must utilize those gifts to glorify Him. Putting others first is a key component of stewardship, however, simply putting others first does not make up the whole of good stewardship. In the parable of the shrewd manager in Luke 16: 10, Jesus says, “Whoever can be trusted with very little can also be trusted with much, and whoever is dishonest with very little will also be dishonest with much.” Therefore, investing resources efficiently, and in a way that allows for the flourishing of all stakeholders, serves God’s purpose for business. In a similar way, Paul encouraged the Colossians by saying, “whatever you do, work at it with all your heart, as working for the Lord, not for human masters” (Colossians 3:23).
The concept of stewardship, in the business world, has been an increasing focus of research recently (Kuppelwieser, 2011). Where traditional agency theory is based on divergent goals between owner and employee (Zahra et al., 2008), stewardship theory provides a different perspective on motivation, highlighting the possibility of congruent goals (Davis, Schoorman, & Donaldson, 1997). Corbetta and Salvato (2004) point out that good stewards work for the good of the organization as a whole, and make decisions based on what is good for the organization and its stakeholders. This shifts the position of shareholders from the main concern, in an agency model, to the position of a stakeholder. PPM, as a practice, is concerned with the efficient use of resources through a holistic approach, taking into consideration the strategic objectives of the organization. Seeking to use resources efficiently not only allows for the organization to flourish, but it also honors God through being good stewards of the resources he has entrusted to the organization.

Organizational culture is a widely researched topic because it is seen as a critical component to enhancing the financial performance of the organization (Booth & Hamer, 2009). While financial performance is important to any organization, Karns (2011) points out that a stewardship model for business shifts profit from the purpose of business to a means to serve all stakeholders. To this extent, profit is still critically important to the business; however, it is not the sole purpose. Additionally, Wettstein (2010) suggests the stewardship model for business allows for human flourishing, not just a return for investors. This human flourishing is Sakhrekar and Deshmukh (2014) who suggest firms with healthy organizational cultures see higher levels of employee job satisfaction,
performance, commitment, and efficiency. The prophet Jeremiah cautioned kings who build their kingdom through injustice in the treatment and payment of their workers, calling it unrighteous (Jeremiah 22:13). Likewise Paul also encouraged “masters provide those who work for you with what is right and fair, because you know that you also have a master in heaven (Colossians 4:1, with emphasis). Shifting the purpose of business to human flourishing highlights the intrinsic value inherent each employee. The core of this value was established in Genesis, when God created man in his own image (Genesis 1:26). This focus on the value of the employee, versus the value that they bring, does not minimize the importance of workers contributing to the business in a profitable way. It provides owners and managers with a framework establishing an organizational culture that values both the employee, and the employee’s work.

**Relationship to Field of Study**

Project portfolio management is a discipline within the project management field. The Project Management Institute (PMI) supports PPM through publishing the Portfolio Management Body of Knowledge; likewise PPM is also addressed in the Project Management Body of Knowledge. As organizations become more project oriented, it increases the need for organizations to incorporate PPM into their business practices not only to achieve project success, but also achieve the strategic objectives of the organization.

**A Review of the Professional and Academic Literature**

The practice of project portfolio management (PPM) has received increased attention in organizations since it is a critical competency for managing multiple projects
at the same time (Killen, Hunt, & Kleinschmidt, 2008). The Project Management Institute (PMI, 2013a) highlighted that organizations are realizing PPM is an effective way to manage projects, programs and operations to deliver value and achieve strategic objectives. The strategic benefits of PPM on portfolio, project and firm performance are well documented in the literature (Patankal, 2015), however, there is minimal literature focusing on the effect PPM has on the culture of the organization. While much of PPM research has dealt with its use as a rational decision making model, Martinsuo (2013) suggested future PPM research should seek to explore the organizational and behavioral viewpoints in both context and practice. In order to address this, a review of the academic literature was developed using a conceptual framework for linking PPM to organizational culture through stakeholder engagement and strategy alignment. This literature review first addressed PPM as a practice and its effect on stakeholder engagement and strategy alignment. Next it moved to organizational culture and the effect stakeholder engagement and strategy alignment have on the culture of the organization. Then, the competing values framework (CVF) was introduced as a means for measuring organizational culture for this study. Finally, the review included a discussion of the variables that impact the study.

The Purpose for PPM

In order to create long-term value, organizations must constantly seek a competitive advantage within their industry. A competitive advantage is established when a firm develops a combination of attributes that allow it to perform better than competitors (Singh, 2012). Allocating resources in a way that drives the competitive
strategy of the organization is critically important for firms seeking to improve performance and develop a competitive advantage. Competition influences how companies act with regards to performance, culture, innovation, and strategy implementation (Porter, 1985). How strategy is executed through resource allocation is reliant on stakeholders within the organization and the organizational culture. One of the critical tasks in strategy making is the management of stakeholder interactions, and their competing demands as they relate to the goals of the organization (Ackermann & Eden, 2011). Though firms are reliant on stakeholders to execute strategy, 95% of employees either do not understand, or are unaware of organizational strategy (Kaplan & Norton, 2005).

At the project level, a misalignment of the project with the overall business strategy accounts for 30 percent of all project failing (Miller, 2002). Often organizations miss the link between the project plan and business strategy (Patanakul & Shenhar, 2011). Without a clear understanding of the organizations strategy, it can lead to misalignment between firm objectives and organizational culture. Organizational culture plays a significant role in organizational performance both in terms of organizational effectiveness and financial performance (Booth & Hamer, 2009). Culture, performance and strategy are all interconnected in a company’s fight for competitive advantage (Vele, 2013). However, connecting strategy with coherent action is a difficult challenge, as 66% of corporate strategy is never actually implemented (Johnson, 2004).
PPM

Though the field of PPM is not a new field, its importance is growing beyond just project-based businesses. Projects have become a primary vehicle for executing the strategy of an organization (Killen & Hunt, 2013). Thus, engaging in projects that align the strategy and objectives of the organization is critical to the success and longevity of an organization. Both project management (PM) and PPM emphasize the use of formal processes for managing projects and portfolios. Formalization has been linked to organizational performance in many studies (Nahm, Vonderembse, & Koufteros, 2003). Similarly, other studies have found project formalization, through the use of project management practices, is correlated to individual project performance (Liu, Chen, Chan, & Lie, 2008). In a study by PMI (2015), companies that had highly effective PPM practices performed better in forecasted return on investment (ROI), business intent, and meeting project objectives, than companies with less effective PPM practices. While the benefits of PPM can lead to greater business returns, and project success, implementing PPM effectively in an organization is challenging. Many organizations fail in their attempt to successfully manage their portfolio due to the amount of uncertainty in project relationships, changes in strategy over time, and difficulty in measuring success factors (Ghapanchi, Tavana, Khakbaz, & Low, 2012).

As the world of business becomes more complex, the strategic nature of PPM is becoming a powerful tool in the way of prioritizing, evaluating, and selecting projects such that they align with the overall objectives of the organization (Shenhar, Dvir, Levy, & Maltz, 2001). Despite its benefits, PPM has still been primarily used in large, project-
based businesses. How PPM is incorporated into overall business practice varies by company, and can be utilized formally or informally. Kaplan and Norton (2008) see PPM as an integrated business function that can benefit more than just project-based businesses. The uniqueness of each business and the dynamics of the industry in which the business operates requires both an understanding of PPM practice as well as a development of PPM process specifically for the organization in order to implement and execute it successfully. By establishing a formal process for managing a portfolio, firms can establish formal routines for making decisions. While this may seem rigid, and hindering, in a fast paced, complex, and competitive environment, relying on a consistent, systematic process for making decisions on how resources should be allocated can greatly improve process implementation speed (Ahlemann, Teuteberg, & Vogelsang, 2009), and management quality leading to improved portfolio success (Teller, Unger, Kock, & Gemunden, 2012).

**PPM Practice and Resource Allocation**

PMI defines project portfolio management as the coordination and management of one or more portfolio of projects, programs, and operations to achieve organizational objectives (PMI, 2013b). PPM, as a practice, handles the allocation of scarce resources under the sponsorship of management (Archer & Ghasemzadeh, 1999). Companies that have a structure in place that aligns the deliverables of projects with the goals of the organization will be well positioned to achieve value in those projects as part of their overall business strategy (Too & Weaver, 2014). This highlights the strategic benefit of PPM practice in allocating resources because it is conducted at a higher level and
provides a holistic view of not just projects, but the organizational environment currently and in the future (Engwall, 2003). Without a holistic approach to allocating resources in support of the overall organizational strategy, it can lead to both financial and personal tension. Arvidsson (2009) highlighted that the process of resource allocation is one of the most conflict-ridden practices in an organization.

In the absence of a formal practice for allocating resources with an organization that supports an overall strategy, resource allocation is prone to interventions and influence by senior managers to accelerate their personal projects, without regard for the goals and strategy of the company (Jonas, 2010). Establishing PPM, as a practice, provides guidance for how resources should be allocated and invested, and also supports the theory of procedural justice by enhancing trust, cooperation, and confidence among stakeholders (Kang, 2007). Likewise PPM practice leads to increased efficiency at both the portfolio and project levels (Marinsuo & Lehtonen, 2007). Portfolio management also provides a means for improvisation and flexibility in a dynamic environment as it provides a process and governance for decision-making, allowing the portfolio manager and organizational leaders to react the business environment (Jerbrant & Gustavsson, 2013). Thus, PPM yields multiple benefits; however, defining what constitutes effective PPM is challenging to both measure results and understand the impact of those results (Patanakul, 2015). While a single project, on its own, can be assessed based on traditional measures of being completed on time, on budget, and in scope, PPM helps with connecting how single projects affect the portfolio, and measured against the strategic objectives of the organization.
PPM Processes

The Standard for Portfolio Management (PMI, 2013b) has broken portfolio management into three separate processes; defining, aligning, and controlling. The defining phase deals with how the portfolio is managed in order to achieve the objectives and strategies of the organization. The aligning phase focuses on aligning projects and operations with the strategy of the company. Finally the controlling phase focuses on managing the portfolio in a way that meets the defined success criteria. As each business is unique in its needs, multiple variations of PPM have been researched and developed, including PPM for new product development (Abrantes & Figueiredo, 2015), innovation (Killen & Hunt, 2013), and organizational design (Petro & Gardiner, 2015). However, this study is concerned with PPM and its management tasks and the effect these tasks have on organizational culture.

The PPM process as put forth by Jonas (2010) included four interdependent management tasks: portfolio structuring, resource allocation, portfolio steering, and organizational learning. Portfolio structuring dealt with tasks that identify the desired portfolio based on the company’s strategy. Resource allocation addressed the distribution of resources across the organization and projects based on the business strategy and portfolio structure. Resource allocation also addressed resource competition within the organization, in order to move from the structuring phase to the steering phase. The portfolio steering phase is a continuous process where the portfolio is assessed and reassessed to determine if resources fit within the portfolio structure. In this phase resources can be redistributed based on the current portfolio, or based on changes in the
strategy of the organization. The fourth and final phase incorporated assessment and learning based on the evaluation of project and business results, and how they support the strategic objectives of the organization.

Meskendahl (2010) suggested that closely integrating PPM into the strategic processes of the firm could better align the organizations strategy throughout the entire organization, reducing resource conflicts. However, if PPM is only partially implemented with some projects or processes, stakeholders still feel stress as resources are allocated away from projects and projects are discontinued, because they lack a broad perspective (Blichfeldt & Eskerod, 2008). Thus management plays a critical role in communicating and executing strategy. Jonas, Kock, and Gemuden (2013) highlighted the importance management quality plays in the PPM process. They suggested that effective management contributes to the quality of information, allocation and cooperation, influencing the success of the PPM process through clarity of purpose. This aids in decision makers having the right information, and a clear understanding of organizational strategy and risk management (PMI, 2015).

**PPM and Stakeholder Engagement**

Balancing the expectations and needs of stakeholders, when there are competing requirements and priorities, is key task within project management (PMI, 2012). Stakeholders play an important role in the allocation of resources, as well as carrying out the strategy of the organization. Freeman, Harrison, Wicks, Parmar, and De Colle (2010) described stakeholders as an individual or group that is affected by, or can affect, the strategy of the organization. While some stakeholders may be more involved, the roles of
stakeholders can be broad. PMI (2012) includes executives, operations management, functional management, human resources, finance, legal, the project management office, and project teams as stakeholders. Though the list of stakeholders is not exhaustive, it is important to understand which stakeholders play a role in the success of the portfolio. As such, stakeholders wield influence within the organization, as they can positively or negatively affect the outcomes of projects, as well as organizational strategy. Due to this influence, stakeholder management and stakeholder behavior are recognized as critical components to successful PPM (Aaltonen, 2011). Thus, a failure to adequately manage stakeholders can lead to disappointment within projects, and is a root problem within organizations (Eskerod, Huemann, & Ringhofer, 2015).

Stakeholder management is a prescribed function of project, program and portfolio management (PMBOK, 2013). The scope of stakeholder management at the project and program level is narrower in focus as it pertains mostly to completing projects or programs effectively. Stakeholder management in PPM is broader in scope as it deals with the overall strategy of the organization, and the projects, programs, and operations that are necessary to realize that strategy. PPM, therefore, can be utilized as an effective tool for the management and engagement of stakeholders at the organizational level. Beringer, Jonas, and Kock (2013) studied the impact of stakeholder engagement at different levels within the organization. They determined that the engagement of line managers is critical to the success of the project as line managers both control resources and are responsible for executing the strategy. In situations where there was a low level of line manager engagement, the authors found it led to senior managers pushing through
pet projects that did not align with the strategy of the organization. This was in line with Eskerod and Huemann’s (2014) assertion that stakeholder involvement at multiple levels is necessary in order to understand wishes, concerns, needs, and requirements. While the engagement of line managers is important, Beringer, Jonas, and Kock (2013) highlighted that engagement at all levels is important when it comes to managing stakeholders.

Even when attempts are made to engage stakeholders within projects, a common complaint is that management does not really care about the stakeholders’ concerns, wishes, and requirements (Eskerod & Huemann, 2013). Organizational leaders possess the requisite knowledge to effectively manage stakeholders, but this knowledge has been frequently under-utilized due to a lack of a strategic plan for stakeholder management (Ackermann & Eden, 2011). Thus, developing a strategic plan for engaging stakeholders is critical to effective PPM. Despite this challenge, there are opportunities within the PPM process that emphasize stakeholder interaction. Patanakul (2015) highlights three keys to PPM process effectiveness: 1) cooperation quality, and the interaction between different management roles within the PPM process, 2) allocation quality of resource distribution throughout the portfolio, and 3) information quality, and the transparency of the scope of projects within the portfolio. Each of these steps involves stakeholders directly, or indirectly, bringing into consideration which stakeholders should be involved, and to what extent.

Eskerod, Huemann, and Ringhofer (2015) took stakeholder engagement within projects one step further and consider stakeholder inclusiveness as a key driver for stakeholder engagement. The authors highlighted the difference between the
management of stakeholders and management for stakeholders, as put forth by Freeman et al. (2010), where managing for stakeholders acknowledges that stakeholders have inherent value, and are not simply a means to an end. Eskerod et al. (2015) suggest that managing stakeholders should go beyond just minimizing the potential negative influence stakeholders can have on projects. Likewise, managers should not focus solely on managing the stakeholders that can positively affect the project. By applying stakeholder inclusiveness, as a strategy for managing stakeholders, the authors determined that stakeholder inclusiveness could increase the engagement and satisfaction of stakeholders. However, the authors also pointed out that an over-emphasis on inclusiveness could result in less focus on stakeholders that are deemed critical to the success of a given project. Additionally, being too inclusive can lead to stakeholder disappointment, as meeting the wishes and requirements of all stakeholders is not possible. Therefore, stakeholder management, as a function of PPM, is important in identifying, which stakeholders need to be managed, and how they should be managed, in order to improve engagement. While a set strategic plan for managing stakeholders is an important piece of the PPM process, Eskerod and Vaagaasar (2014) also suggested incorporating an emergent strategy for addressing stakeholder engagement as it evolves over time.

**PPM and Strategy**

The strategy of an organization is determined by how the company chooses to compete. Business strategy provides direction to the organization. However, how it takes shape is dependent on the company itself (Mishra, Mohanty, & Mohanty, 2015). In order to develop a competitive advantage, firms must identify and develop competencies
that create value, allowing it to outperform its competitors (Singh, 2012). Developing strategy, by itself, is easier than making strategy work through implementation (Hrebiniak, 2006). Developing strategic goals and financial targets are important pieces of strategy, but how those goals are executed is the challenge most organizations face. Jurecka (2013) highlighted that 40% of organizations do not have a formal system for strategy execution. He suggested the inability to successfully execute business strategy is often linked to insufficient collaboration, communication, incentive setting, and integration across business units and projects. Strategy execution is challenging because success is often measured financially, and not measured against the goals of the organization. Fiala, Arlt, and Arltova (2014) pointed out that PPM is a dynamic, multi-criteria decision-making process that must look beyond just financial indicators.

The PPM processes put forth by Jonas (2010) provided a means for dynamic decision-making, communication and collaboration. The portfolio structuring and resource allocation phases reduced the conflict between managers competing for resources because the portfolio is aligned with the strategy of the organization, clarifying why resources are allocated. Portfolio steering allowed the organization to adapt based on the flow of information from projects, project performance, and the changing business environment. Finally the organizational learning phase ensured lessons learned are documented and communicated, such that improvements can be made in future projects and strategies. Aritua (2009) highlighted the importance of constant awareness of strategic fit of projects through the sharing of information among stakeholders, emphasizing the need for collaboration within the PPM process. Because PPM is a
perpetual practice, where the current portfolio is regularly assessed for fit as well as new opportunities, it allows for strategy to be formulated and executed in a dynamic environment. Killen, Jugdev, Drouin, and Petit (2012) suggested the most effective way to align profit objectives with strategy is proactive project portfolio management, and both project management and PPM were identified as strategic capabilities that create a competitive advantage.

PPM helps contribute to the competitive advantage of the organization by incorporating a holistic framework for strategy management ( Killen & Kjaer, 2012). Coulon, Ernst, Lichtenthaler, and Vollmoeller (2009) suggested that organizations with a high level of portfolio management have a higher level of strategy alignment. Alignment within an organization is more important to PPM success than simply prioritizing the right projects, because it allows for the flow of information across business units and projects (Kaiser, Arbi, & Ahlemann, 2015). This provides decision-makers with an understanding of project interdependencies and their relation to the overall objectives of the organization in order to allocate resources effectively. Strategy alignment, however, does not occur in a static environment, and requires adjustment and learning over time in order to maintain fit (Kerzner, 2004). While effective PPM can lead to a competitive advantage, simply establishing a PPM process does not lead to success. Successful PPM requires communication and collaboration and a culture that supports transparency and information sharing (Kim & David, 2007).
Structure and Alignment

The importance of alignment extends beyond just effective strategy execution, to the organizational structure itself. Kaiser, Arbi, and Ahlemann (2015) studied the effects of change in both strategy and structure of organizations. They suggest that PPM goes beyond simply selecting projects, and helps shape the structure of the organization. Companies that align strategy, and structure, with information requirements are more effective in implementing their strategies (2015). While having the right PPM structure and PPM practice in place can aid in aligning the strategy of the organization, the overall strategic orientation of an organization plays a critical role in the success of the portfolio. Meskendahl (2010) developed a conceptual model that identifies strategic orientation as a linking factor between portfolio structuring and portfolio success by drawing on the business strategy literature in order to address the gap between developing and implementing strategy. He asserted that a firm’s incorporation of PPM has a strong strategic impact.

The organizational structure that surrounds PPM practice varies from one firm to the next. Mature project-based firms utilize a project management office (PMO) or a portfolio project management office (PPMO) to help guide the PPM process. Though this study did not seek to test the implementation of a PMO or PPMO, the role these entities play in PPM practice aids in the discussion of PPM and strategy alignment. Unger, Gemunden, and Aubry (2012) identified three key roles of the PPMO: the coordinating role, the controlling role, and the supporting role. The coordinating role facilitates the selection of projects, as well as the coordination of resources in a way that
aligns the strategy of the organization. The controlling role manages information in order to make decisions and monitor the progress of projects within the portfolio. Finally the supporting role provides services to project leaders and members, as well as promote organizational learning in order to improve the implementation and completion of projects.

Firms that implement project management in a way that aligns with the strategy of the organization can add significant value to the organization. Thus aligning strategy down to the project level is critically important. Alsudiri, Karaghoul, and Eldabi (2013) suggested that companies can improve project success through utilizing a stakeholder approach when aligning project management during the planning phase of business strategy. A clear understanding of roles plays an important role in not only aligning strategy, but also for engaging stakeholders in the PPM process (Beringer, Jonas, & Kock, 2013). The structure and strategy of an organization is important for how the company is aligned, however companies often fail to understand how the culture of the organization aligns with their strategic objectives (Eaton & Kilby, 2015).

Organizational Culture

Organizational culture is a widely researched topic in the literature. While there have been many descriptions of what organizational culture is, and where it comes from (Mouton, Just, & Gabrielsen, 2012), there are common themes that have surfaced. Hofstede’s (1980) work on organizational culture focused on the values that are brought to the workplace as part of what he called national culture, and then combined with occupational culture, and organizational culture to establish workplace behavior. While
Hofstede’s work emphasized the influence external culture brings to the organization, Schein’s (1985) research focused on how internal organizational culture is developed. Schein’s research on organizational culture has been considered foundational to contributions on the topic. He defined organizational culture as “assumptions and patterns that are developed, invented, or discovered by a group as it adapts both internally and externally, and learns to cope with problems, to produce a correct way to think, feel, and perceive those problems” (p.9).

While the culture of an organization develops over time to establish values and beliefs, the purpose of much of the academic literature and business focus is to support the goals of the organization in a way that improves firm performance (Booth & Hamer, 2009). Martinez, Beaulieu, Gibbons, Pronovost, and Wang (2015) also suggested that organizational culture is not just a determinant of economic activity, but it is also a result of it. In order to understand the role organizational culture plays in this study, this section of the literature review looked at: 1) organizational culture and its link to performance, from the perspective that it drives competitive advantage, 2) organizational culture and what the project management and PPM literature discuss about it, 3) a review of the literature on strategy alignment and stakeholder engagement and their connection to organizational culture, finally 4) the review looked at the competing values within organizations, and the competing values framework (CVF).

Organizational Culture and Performance

Organizational culture has been recognized as a key driver of organizational performance outcomes (Hartnell, Ou, & Kinicki, 2011). The culture of an organization
affects the behaviors of individual employees, and therefore has an impact on performance (Calori & Samin, 1991). The effect culture has on an organization makes it not only an important factor, but a key factor in driving superior business performance (Gallagher, Brown, & Brown, 2008). Company founders and leaders work to develop a culture that gives their organization a competitive advantage in the workplace. The culture of an organization can create a competitive advantage because of how it influences the organization through employee efficiency, performance, satisfaction, and commitment (Sakhrekar & Deshmukh, 2014). Denison and Mishra (1995) suggested effective organizations have high levels of adaptability, internal consistency, employee involvement and a strong mission. These can be described as positive organizational culture traits, which Boyce, Nieminen, Gillespie, Ryan, and Denison (2015) identified as having a causal link to performance. Sorenson (2002) highlighted firms with a unified, cohesive culture can achieve higher levels of financial performance as long as they operate in a stable environment. However, business operates in an increasingly dynamic environment, making the challenge of positively affecting organizational culture more difficult. Abu-Jarad, Yusof, and Nikbin (2010) suggested firms must consider both financial and non-financial performance when considering the impact of organizational culture on an organization.

Organizational culture has been established as a key driver of competitiveness and performance, leading to a competitive advantage (Alvesson, 2002). How performance is integrated into culture is important in considering the culture of an organization, as a strong organizational culture has been linked to organizational performance (Hofstede &
Hofstede, 2005). Boyce et al. (2015) identified that organizational culture comes first, followed by performance. The authors acknowledged the possibility of a reciprocal relationship where performance affects the culture of the organization as well. There are many contributing factors that affect organizational culture as well as help shape it. Management has an effect on both how culture is developed and carried out (Martinez et al., 2015). Likewise the connection or fit between the organization and the employee is a critical component of organizational culture as well (Arbour, Kwantes, Kraft, & Boglarsky, 2014). Because companies and organizations are unique and operate in different arenas and industries, understanding organizational culture and how it affects performance is challenging due to varying success criteria at the project and portfolio level, as well as the added complexity it brings to the organization as a whole.

**Organizational Culture in PM**

Research on organizational culture in the PM discipline has focused primarily on how it affects the implementation or success of specific projects. Palmer (2002) suggested that organizations are increasingly relying on projects as a means for achieving specific goals; however, many organizations do not have a culture that is conducive to the necessary project disciplines. Establishing a culture for project work is a priority for organizations engaged in project work. Research has suggested team culture should be addressed at the beginning of project work in order to drive behavioral outcomes that enhance team performance (Aronson & Lechler, 2009). Additionally, Aronson (2015) identified culture in project work is highly correlated to team efficacy and project
success, and that a collaborative team culture can benefit the project-based organization (2015).

The project manager also plays a significant role in project culture. Seiler, Lent, Pinkowska, and Pinaza (2012) highlighted the importance of project manager motivation in project success rates. Schmid and Adams (2008) also emphasized the importance of motivation within a project as key to successful project execution. Beyond motivation, Zuo, Zillante, Zhao, and Xia (2014) suggested that projects themselves can take on a specific culture, and that project culture plays a significant role in project success. Though project culture can affect project success, it is still subject to environmental pressure from the overall organizational culture. Gu, Hoffman, Cao, and Schniederjans (2014) studied the effects of environmental pressure on IT projects, and determined that these pressures affect the relationship between IT project performance and organizational culture. This highlights the pervasiveness of organizational culture at all levels of the organization, and that its effects on stakeholders, projects, and business should be taken into consideration at the strategic level.

**Organizational Culture in PPM**

The interconnected nature of specific projects within the organization adds a layer of complexity in dealing with culture at the portfolio level. Research on organizational culture at the portfolio level has focused primarily on the strategic aspects of managing firm resources and guiding and directing strategy. Few studies have considered the contextual facets of the organization and the portfolio. This has resulted in culture’s influence and complexity being neglected (Hanisch & Wald, 2012). Unger, Kock,
Gemunden, and Jonas (2012) suggested the role of portfolio management is to set strategic orientation and direct projects. The authors’ highlighted that the culture of the organization is also embedded in its strategic orientation. This can be viewed both internally and externally. Luvison and de Man (2015) looked at how firms can create an organizational culture to realize potential value in strategic alliances. While studies may be limited in looking at the cultural context of portfolio management, Unger, Rank, and Gemunden (2014) suggested the culture of an organization, and the national culture, where the company resides, provides context to how organizations should operate projects, and project portfolios.

Organizational culture plays a role in the strategic orientation of the organization, and adds a layer of contextual complexity to the PPM process (Martinsuo & Killen, 2014). At the portfolio level, risk management and innovation cultures have been recent topics in PPM literature. Teller and Kock (2013) highlight that a risk management culture, that emphasizes risk prevention, has a positive effect on overall portfolio success. Additionally, Teller (2013) also incorporated risk management culture as one of the driving factors in portfolio risk management. From an innovation perspective, Unger, Rank, and Gemunden (2014) suggested a strong innovation culture leads to higher levels of project success. Likewise, Meskendahl (2010) also suggested that corporate innovation culture could have an effect on the strategic orientation of the organization as well as its potential for portfolio success. Thus the perspective of the firm helps guide its strategic orientation, and priorities.
Managing a portfolio of projects, and the various interdependencies, resource needs, and strategic payoffs, is complex in its own right. Understanding the role culture plays in PPM has primarily been focused on the impact culture has on PPM. Minimal research has been devoted to understanding the relationship between PPM and organizational culture, and the impact of that relationship. Likewise, much of PM literature has also focused on establishing the right culture for PM to be effective, as well as the effect organizational culture has on project success (Patankal & Aronson, 2012). In order to assess the complex dynamics of PPM and organizational culture, this study used the competing values framework as a means for understanding internal pull toward different cultural values, and how those cultural values are impacted when PPM is introduced.

**Stakeholder Engagement and Culture**

Engaged employees drive organizational performance and firm values, and are critical to achieving a competitive advantage in the marketplace (Taneja, Sewell, & Odom, 2015). Despite the benefits of engaged employees, a survey by Gallup (2013) found that only 13% of employees are engaged, while 63% of employees reported they are not engaged, and 24% are actively disengaged. Just as stakeholders play a critical role in PPM, the engagement of stakeholders affects the culture of the organization due to their interdependent nature (Beringer, Jonas, & Gemunden, 2012). While PPM as a practice incorporates stakeholders, Taneja et al. (2015) pointed out the importance of developing a strategy for the organization that includes increasing the engagement of employees. Stakeholder engagement is a key element of a productive workforce.
(Christian, Garza, & Slaughter, 2011). In order to explore the impact engagement has on organizational culture, this section looked at the foundations employee engagement, stakeholder theory, and the role organizational culture type plays in engagement, and finally the importance of managerial action and how it affects engagement.

**Employee Engagement**

Engagement is a psychological state of dedication, hard work, and the belief in what one is doing (Macey & Schneider, 2008). Engagement is a widely discussed topic in business literature because engaged employees perform better (Saks & Gruman, 2014). Kahn (1990) identified the nature of employee engagement as people who are cognitively and emotionally engaged. He highlighted employees are engaged when they have the resources they need to do their work, have opportunities to feel fulfillment and see the impact of their work, know the expectations of their work, have the chance to develop, and view their work as something significant. Conversely, Kahn described disengaged employees as people who simply go through the motions, withhold their full attention and effort, and do not identify with their work. This results in a lack of connection with their work, customers, and co-workers, leading to under-performance. Kahn identified three hallmarks of engagement in employees: 1) psychological meaningfulness, 2) psychological safety, and 3) psychological availability. Psychological meaningfulness stems from employees feeling as though their work is worthwhile, and valuable. Psychological safety is experienced when there is established trust, and employees can engage in their work without fear of consequences that might negatively impact their career or self-image. Finally Psychological availability is established when people have
the psychological, emotional and physical resources to engage personally in their work. These three elements of employee engagement coincide with the role PPM plays in stakeholder engagement by allowing stakeholders to see the big picture of what the organization is trying to accomplish, the trust established by having an identified process for managing resources based on the goals of the organizations, or the theory of procedural justice, and the availability of resources so that stakeholders can fully engage in their work.

The competing demand for resources within the organization has lead to a convergence of job demands and resources. The job demands-resources (JD-R) model developed by Bakker and Demerouti (2007) has been widely used in employee engagement studies (Saks & Gruman, 2014). Within this model, when job demands are high, and resources are low, engagement is undermined. Job resources provide employees with what they need to get the job done. Job resources can be physical, like having the right equipment or manpower; they can also be mental, such as a supportive boss, autonomy to make decisions, and feedback. Bakker and Demerouti (2007) suggested that by providing the right job resources organizations may increase engagement and mitigate the impact of job demands. Their model highlights that job resources can be applied in high demand jobs to act as a buffer to negative engagement effects. Specifically within organizations, where engagement breaks down is in resource allocation, as evidenced by the JD-R model, and in communication at the corporate and leader levels (Karanges et al., 2015). Resources therefore play a critical role in employee engagement, and managing resources effectively can aid in improving employee
engagement. Even though managing resources is important to the organization, individuals can seek to hoard resources for themselves. The conservation of resources (COR) theory suggests individuals look to secure and protect resources of value, or that can aid them in collecting other valuable resources, leading to conflict and inefficiencies (Hobfoll, 2002). Thus, organizations can minimize the negative effects of COR through effective and inclusive resource allocation practice through the use of PPM.

Communication also plays a critical role in stakeholder engagement and organizational culture. Mishra, Boynton, and Mishra (2014) suggested that the right communication strategies could improve transparency and increase engagement. The corporate communications industry highlights internal communication as a key factor in employee engagement (Karanges, Johnston, Beatson, & Lings, 2015). MacLeod and Clarke (2009) supported this by identifying communication as a key element for engaging employees and enhancing performance. From a leader perspective, Wiley, Kowske, and Herman (2010) suggested the ability of leaders to communicate is directly related to improved employee engagement. Likewise, Christian, Garza, and Slaughter (2011) also found that transformational leadership and an effective leader-member exchange can also positively influence employee engagement. This highlights the importance of communication within organizations as both a way to improve performance and also drive engagement.

**Stakeholder Theory**

Employees make up a large segment of a firm’s stakeholders, however, beyond employees, stakeholders encompass many more groups, and varying interactions with the
firm. Much of stakeholder theory research supports the idea that if organizations treat stakeholders fairly, it contributes to firm performance (Harrison, Bosse, & Phillips, 2010). In the stakeholder literature, stakeholders are viewed as being in competition with each other for a share of the limited resources of the organization, resulting in both potential and realized conflict (Harrison & Wicks, 2013). However, despite this conflict, stakeholders are dependent on the firm, as well as other stakeholders to achieve their own interests (Freeman, Harrison, & Wicks, 2007). This interconnectedness of stakeholders to the firm, and each other, highlights the importance of cooperation among all parties to drive value for the organization. In order to positively impact the culture of the organization through managing stakeholders it is important for firms to incorporate shared norms for the organization and stakeholders that go beyond just self-interest (Harrison & Wicks, 2013).

Bridoux and Stoelhorst (2014) examined stakeholder theory and different management approaches as a bundle of practices in which firms take different approaches. The authors highlighted the fairness approach, which utilizes three key elements. First, it used fairness as a means to drive how value is divided among stakeholders, and how each stakeholder is treated, leading to organizational practices that share information openly and honestly. Second, formal contracts between stakeholders and the firm are often lacking, thus the firm and stakeholders are reliant on trust and self-enforcement. Finally, the fairness approach emphasized that stakeholder relationships are long lasting, and should not be managed solely for the short-term. On the opposite side of the fairness approach, Bridoux and Stoelhorst described the arms length approach as
one based on bargaining power. This contradicts the fairness approach in that stakeholders with the most bargaining power will be able to extract a greater share of value. The emphasis on bargaining power also leads to information hoarding resulting in information asymmetries across the organization. Because of this, the arms length approach requires legal and economic sanctions in order to enforce requirements and standards. The authors suggested firms fit their approach to match the culture of the organization and the type of industry. They argue that both the fairness approach, and arms length approach can be effective for managing stakeholders. This coincides with understanding the culture type of an organization and how it aligns with the objectives of the firm.

**Growth or Fixed Mindset**

Employee mindsets are an important consideration for employee engagement. Just as the culture of an organization is pulled between competing forces, a mindset approach is based on a continuum between growth and fixed mindsets. Keating and Heslin (2015) studied the effect employee mindsets have on employee engagement. They highlight Murphy and Dweck’s (2010) culture of genius and culture of growth definitions. The culture of genius is a view that intelligence is largely a fixed attribute, to which some are born with and some are not. The culture of growth, however, takes the view that intelligence and talent can be developed. Keating and Heslin (2015) found that organizations that foster a growth mindset; increase employees belief their efforts means something, increases employee’s enthusiasm for personal development, increase attentiveness to information, and a positive approach to job and interpersonal challenges.
On the other side of the continuum, the authors suggest a fixed mindset leads to cynicism about the worth of one’s effort, as well as reduced commitment in the face of challenges. Though a growth mindset cannot overcome all obstacles, the authors suggest organizational leaders engage in activities that foster a growth mindset in order to improve the engagement of their employees.

**Managerial Action**

Within the management literature, employee engagement is also a well-researched topic and has received increased attention due to the performance benefits that come with engaged employees. Medlin and Green (2014) studied the role basic management principles, and the management process play in employee engagement. They suggested that managers who employ and adhere to management principles create an environment that is conducive to success and free of roadblocks, leading to increased employee engagement. Likewise leaders who utilize the management process set expectations and hold employees accountable, as well as allocate resources effectively are better able to meet management expectations, also leading to increased engagement among employees. PPM is considered a management process in which leaders execute management tasks in order execute the process. These management tasks lead to empowerment, intervention, and encouragement (Jonas, 2010). This highlights the importance role leaders play in driving the engagement and overall culture of the organization. While directly addressing engagement, and culture, through a specific strategy is important, what is equally important is incorporating organizational leaders, management processes and strategy making to drive the objectives of the organization.
Strategy Alignment and Culture

Strategy deployment requires a focus of business processes within the organization in order to achieve its objectives and create value (Reidenbach & Goeke, 2007). Aligning strategy requires the linking of culture, people, processes, leadership, systems, and strategy to accomplish the goals of the organization (Tosti & Jackson, 2000). A company’s culture is evident in its processes through its established values, behaviors, and beliefs (Eaton & Kilby, 2015). The embedded nature of organizational culture, though it can be changed over time, is an important consideration with regards to aligning organizational strategy because improving strategy alignment can not only boost business performance but also positively impact organizational culture through increased job satisfaction (McCaughey & Galaviz, 2011). There are three key elements of strategy alignment and organizational culture outlined in this section: 1) human resource development (HRD) strategy alignment with firm strategy, 2) the concept of fit between strategy and organizational culture, and 3) strategic approaches to organizational culture.

HRD Strategy Alignment and Culture

Employees make up one of the largest stakeholder groups in most organizations. The importance and benefit of engaged employees, as discussed in earlier sections, helps drive business performance. From a strategic perspective, linking strategy and human resource development practices, in a consistent way across the organization, is a key aspect of aligning organizational strategy. A strategic fit between human resource strategy and business strategy can lead to a competitive advantage and improved organizational performance through motivating and retaining employees (Wang & Shyu,
Hsieh and Chen (2011) looked at business strategy, human resources strategy and reward systems to measure the impact fit between these strategies has on performance. They highlight the importance of decision-makers understanding how internal process complement, or fit with each other, in order to pursue the right strategy. They argued this extends to the reward system, and organizations that link their reward system to the overall strategy of the organization can better recruit, retain, and motivate employees. The authors also emphasized employees tend to exhibit behaviors that lead to rewards, so an effective way to engage employees in the strategy of the organization is to align HRD strategy and reward systems with the overall objectives of the organization to improve employee engagement and performance.

Aligning reward systems is an important piece of HRD strategy. Alignment also extends to job characteristics and skills required to bring the organizations strategy to life. Alagaraja and Shuck (2015) studied the linkages between organizational alignment, employee engagement and performance. The authors suggested that organizations should seek to align organizational strategy with both the job and the individual, noting that alignment and engagement are intertwined. They emphasize the importance of nurturing the conditions for engagement through alignment, not just seeking an outcome. Alagaraja and Schuck also suggested alignment should extend throughout the organization, not just at upper levels, because engagement cascades upward in an organization from employees, to their respective teams, to departments, and eventually the whole organization. Finally they point out the interconnectedness of alignment and engagement as influencing and indicating factors of organizational identity.
While aligning HRD strategy, reward systems and job design center on traditional contingency theory, Dutch (2013) studied strategy alignment and human resource management (HRM) from a resource based view. He proposed a framework for HRM and organizational strategy that aligns HR practices in support of competitive strategy in order to exploit organizational resources effectively. This aids with internal competition for resources by providing structure in order to align the organization across common objectives leading to less resources drifting away from organizational goals. He also emphasizes the importance of considering the human elements of human resource management strategy as part of aligning the overall strategy of the organization in order to maintain a competitive advantage. Aligning the human element in HR strategy is also emphasized by Shuck and Rose (2013) as a means to optimize processes in a way that creates purpose and meaning. Likewise, Kahn (2010) also supported the alignment of the organization as a critical function for creating an environment that is safe and allows employees to experience meaning in their jobs. Beyond internal alignment, Alagaraja (2013) also emphasized alignment and communication of strategy can better connect external stakeholders with the strategy of the organization.

**Strategic and Cultural fit**

Firms are unique enterprises that operate in a way to achieve a competitive advantage. Thus, how firms structure themselves is based on the contingency view of structure described by Mintzberg (1979), and varies from one firm to the next, emphasizing that there is no one best way to structure an organization. From an organizational culture perspective, one of the biggest challenges for leaders is fitting
strategy into the context of the current culture in their organization (Morden, 2007). Likewise, management should consider existing culture when developing strategy, as well as shape the culture for the future. Vele (2013) studied the role fit plays in implementing and executing organizational strategy. He emphasized a perfect strategy is not completely sufficient to achieving success. He also pointed out the change that comes with a new strategy alters how things are done creating potential opposition. The author suggested organizations develop a culture that fits with the strategy of the organization in order to support the goals of the organization and ensure effective and efficient strategy execution. Finally he highlighted that effective strategy implementation and execution can lead to a sustainable organizational culture and competitive advantage.

Ahmadi, Salamzadeh, Daraei, and Akbari (2012) also looked at the link between strategy and organizational culture. The authors used the CVF to identify cultural characteristics for each of the culture types: clan, adhocracy, market, and hierarchical. They authors broke down the strategy implementation process into five categories: policy formation, policy implementation, resources, motivations, and structural. The authors found support for a meaningful relationship between organizational culture and strategy implementation for each of the culture types. The most effective culture for implementing new strategy in their study is clan culture, while the least effective culture for implementing strategy is a hierarchical culture. The authors pointed out that the flexibility – stability axis is a critical factor as the more flexible the culture, the more open those cultures are open to change. The authors also emphasize a link between a
strategic emphasis, within an organizational culture, if aligned, leads to effective strategy execution and implementation.

**Strategic Approach to Culture**

A key element of strategy beyond identifying goals and objectives, is affecting change through strategy execution within the organization. Companies face changes throughout their lifespan due to external forces, requiring the company to adapt, and internal forces, causing the organization to develop new capabilities (Belias & Kouustelios, 2014). Leaders do not only react to changing dynamics, they frame them in an organizational rhetoric in order to communicate the strategy to the organization and create or change the culture to fit the strategy (Mouton, Just, & Gabrielsen, 2012). When considering changes in strategy, Crawford (2013) suggested useful strategy should consider: the current capabilities of the organization, it’s competencies, and an agreed upon model for managing the change needed in the organization. Each of these elements is impacted by the culture of the organization. When a change in strategy requires a change in culture, Eaton and Kilby (2015) suggested three key strategic steps in driving a cultural change: 1) alignment of senior leaders, 2) make necessary changes in people processes such as hiring, rewards, and decision making, and 3) clearly communicate what behaviors are changing and explain why.

**Competing Values Framework**

Quinn and Rohrbaugh (1983) first developed the concept of competing values in 1983, viewing organizational culture in relationship to organizational effectiveness as not just a single value, but as a combination of values, all competing with each other. The
idea is that, within each organization, there is some combination of these values, and by understanding these values, and how they relate to the effectiveness of the organization companies can work to move their culture toward a values approach that aligns with their strategy and goals. The model is based on two axes. On the horizontal axis, from left to right, is the level of internal (person-oriented) or external (organization-oriented) emphasis. The vertical axis measures, from top to bottom, the level of interest in flexibility or control. Based on the survey and framework, the authors showed the ability to not only assess where on the axes the culture of an organization lies, but also measure how close the organization’s culture is to its desired state. This level of closeness is the third dimension within the framework, and provided study participants with a view of where they wanted the culture of the organization to be, in order to be effective, and where it actually was. Since Quinn and Rohrbaugh’s (1983) land mark study, the competing values framework (CVF) has been widely used in the literature on organizational culture within academic disciplines such as: marketing, supply-chain management, accounting, management, social services, health care and hospitality, with assessments completed in over 10,000 organizations (Cameron, Quinn, DeGraff, & Thakor, 2006). In addition to its widespread use in the literature, The CVF has been empirically supported in multiple studies (Quinn & Spreitzer, 1991).

**CVF Culture Types**

Within the CVF (Figure 2), the two axes create four quadrants. Each quadrant is defined based on its position on the axis. Each quadrant offers different cultural characteristics the organization embraces to varying degrees, meaning the organization
can have strong or weak tendencies. The four culture types within the CVF include clan, adhocracy, hierarchy, and market. Various studies have utilized the CVF and used slightly different names for each culture type, but the underlying meanings are the same. Within the CVF each quadrant has a diagonal relationship with the culture type diagonally opposite of it (Cameron & Quinn, 1999). That is to say that the defining traits of each quadrant are in direct opposition to their diagonal counterpart. This pits clan culture as the opposing culture type to market culture, and adhocracy culture, the opposite of the hierarchical culture type. A given firm may have a tendency toward one culture type or another; however, it is not completely devoid of cultural elements from other types. This emphasizes the competition between cultural tendencies within each organization. Thus, organizations should not strive for an ideal cultural state, but to understand the current state of the organizational culture and how it compares to the desired state.
Figure 2. The Competing Values Framework

The competing values framework from Cameron and Quinn’s (2011) *Diagnosing and changing organizational culture* (p. 76).

**Clan culture.** The clan culture is team oriented. In the upper left quadrant, the emphasis is on flexibility internal focus. In Quinn and Rohrbaugh’s (1983) original model, they described this culture as the human relations model. This focus on human relations emphasizes a core belief that teamwork, employee involvement, participation, and open communication all lead to commitment, job satisfaction and positive employee morale (Cameron et al., 2006). The clan culture therefore emphasizes the development of
human resources, as well as the development of a cohesive team that trusts each other and works well together.

**Adhocracy culture.** The adhocracy culture type is also on the flexibility axis like clan culture, only it is focused externally. The external focus of the adhocracy culture leads to a growth mindset. This culture type values behaviors that involve creativity, adaptability, and innovation (Dennison & Spreitzer, 1991). Quinn and Rohrbaugh (1983) called this culture the open system model, which emphasizes readiness for new opportunities and growth. The emphasis of the adhocracy culture is focused on people understanding the importance of change and growth.

**Hierarchy culture.** The hierarchy culture type is control oriented with an internal focus. This culture type emphasizes structure and formality. Employees in a hierarchical culture value routines, formal processes and communication and consistency (Cameron, et al., 2006). Hierarchical cultures believe employees should have clear roles and responsibilities, as well as formal processes defined by rules and regulations.

**Market culture.** The market culture occupies the lower right quadrant of the CVF emphasizing control and an external focus. This culture type is concerned with competition and the processes that reward and govern it. The core belief of the market culture is that people will motivated and perform if there are clear goals and rewards (Cameron & Quinn, 1999).

**CVF and Organizational Effectiveness**

The importance of organizational culture and its relationship to firm performance is well documented in the literature. However, understanding how cultural characteristics
translate to into different organizational effectiveness criteria is important in determining both where the current state of a firm’s organizational culture is, and where its ideal state is. Hartnell, Ou, and Kinicki (2011) studied the CVF, through a meta-analysis of the CVF literature, and the relationship of its different culture types to different organizational effectiveness criteria. They established three organizational effectiveness criteria: employee attitudes, operational effectiveness, and financial effectiveness. Employee attitudes relates to the level of commitment and job satisfaction employees have, and their feelings toward the organization. The operational effectiveness criteria deal with the level of product and service quality, as well as the level of innovation and processes within the organization. Financial effectiveness represents profitability and the pursuit of growth measures. At a broad level Hartnell et al. showed support for the relationship between organizational culture and organizational effectiveness. For the employee attitudes culture type, they found support for positive relationship with clan culture. For operational effectiveness the authors showed mixed support for a positive relationship between adhocracy culture and innovation, and partial support for a positive relationship between market culture and quality of products and services. Finally, for the financial effectiveness criteria, the authors found strong support for a positive relationship between market culture and financial effectiveness. The authors pointed out there is not necessarily one right culture type, and that organizations are made up of competing values that are pulling at each other. They suggested it is important for executives to consider the strategic initiatives of their organization, and determine the
right cultural fit, in order to develop a culture that supports the organizations goals, and develops a competitive advantage.

**CVF in Other Studies**

Projago and McDermott (2011) utilized the Competing Values Framework to analyze cultural dimensions in order to provide direction to leaders on how to address culture in their organizations. Group (team) culture and developmental (adhocracy) culture had the highest levels of performance when it came to innovation, product and process quality. While the authors were able to determine which culture types perform better based on certain criteria, they highlight the importance of determining the right cultural fit for the strategy of the organization. Gambi, Boer, Gerolamo, Jorgensen, and Carpinetti (2015) also used the CVF to study the relationship between operational performance and organizational culture, and found that in order for organizations to be successful in producing quality goods and services, and achieve high levels of performance, managers need to be consistently aware of the characteristics of their culture, and how it fits with the strategy of the organization.

Being aware of cultural characteristics is the first step in managing the culture of an organization. Ritchie, Fornaciari, Drew, and Marlin (2012) looked at the role team culture plays in business strategy. They used the CVF to assess the team culture of business students’ performance in a business strategy simulation. They identified that a strong team culture was correlated with high performance. However, the authors point out that the environmental context plays a key role in the relationship between performance and culture. They found that clan and market cultures produced better
results in the simulation. The importance of environment and cultural fit is emphasized by Cameron and Quinn (2011), as organizations move through a cultural life cycle, moving counter-clockwise, from adhocracy dominant early on to market culture dominant in later stages. This again emphasizes the importance of cultural awareness and cultural fit within the strategy of the organization.

**Study Variables**

The conceptual framework for this study connected PPM practice to organizational culture through the common themes of strategy alignment and stakeholder engagement. The literature review expanded on each of these elements in order to support the basis for establishing the hypotheses and variables for this study. The independent variable for each of the hypotheses in this study was the implementation of the PPM framework. For $H1$ the dependent variable was the overall change in organizational culture within the CVF framework. This was based on Beringer, Jonas, and Gemunden’s (2012) suggestion that PPM practice aligns strategy and engages stakeholders, along with Alagaraja and Shuck’s (2015) assertion that stakeholder engagement and strategy alignment can improve organizational culture. The Dependent variables for $H2$, $H3$ and $H4$ were then based on Hartnell, Ou, and Kinicki’s (2011) meta-analysis of the CVF in organizational culture research.

$H2$ was focused on understanding what effect strategy alignment had on organizational culture; with the dependent variable was the change in market culture on the CVF. The authors suggested that a market culture is defined by clear goals and alignment throughout the organization.
The dependent variable for \( H3 \), which focused on the role stakeholder engagement played in organizational culture; was the change in clan culture on the CVF. Hartnell, Ou and Kinicki highlighted how clan culture is marked by high levels of employee morale, involvement and commitment.

Next the dependent variable for \( H4 \) that focused on both strategy alignment and stakeholder engagement together was the change in adhocracy culture on the CVF. The authors emphasized the adhocracy culture focuses on adaptability of the organization, and more importantly, a pull away from a hierarchical culture type.

Finally the dependent variable for \( H5 \) was the payroll performance for the stores in the sample group, and based on research by PMI (2013a) stating that organizations that effectively utilize PPM practice see greater ROI, project success rates, and meeting project budgets.

**Transition and Summary**

Though PPM has gained more attention for its strategic and performance benefits, there is minimal literature addressing its impact on organizational culture. A conceptual framework was developed using the themes of stakeholder engagement and strategy alignment in order to address this gap. This literature review highlighted PPM as a practice for improving the performance of an organization, and the PPM literature on stakeholder engagement and strategy alignment. Then the themes of stakeholder engagement and strategy alignment were reviewed within the organizational culture literature. Though there is minimal literature connecting PPM to organizational culture, this literature review provides a possible connection through the common themes of
stakeholder engagement and strategy alignment in the PPM and organizational culture literature, as a basis for this study. The next section builds upon this foundation and outlines the overall project for looking at the potential impact PPM has on organizational culture within the retail stores in this study.
Section 2: The Project

Project portfolio management (PPM) has been utilized primarily as a tool for decision-making and executing the strategic objectives of the organization in order to improve firm performance. However, there is minimal literature addressing the role PPM has on the culture of an organization. This study addresses the impact PPM has on organizational culture through the implementation of a PPM framework into the human resource allocation process. It was designed to address the problem of a lack of PPM practice for the human resource allocation process within the retail stores in this study, and fill a gap in the PPM literature connecting PPM practice and organizational culture. The literature review focused on two key themes in the conceptual framework of strategy alignment and stakeholder engagement as a basis for understanding the effect PPM has on organizational culture. To measure organizational culture this study utilized the organizational cultural assessment instrument (OCAI) survey and the competing values framework (CVF) to assess the level of impact.

This section was divided into multiple parts: first, a review of the purpose of the study, the role of the researcher, and an overview of the participants; second, a review of the research method and design of the study; next a description of the population sampling techniques and data collection instruments and techniques, and finally, an explanation of the data analysis technique for the study and a discussion of reliability and validity.
Purpose Statement

The purpose of this study was to examine the effect implementing PPM practice into the human resource allocation process had on the organizational culture within a group of general merchandise retail stores located in the Midwest. Stakeholder engagement and strategy alignment are two key PPM functions. Likewise, stakeholder engagement and strategy alignment are also elements of organizational culture. This study examines stakeholder engagement and strategy alignment, as links between PPM and organizational culture, through the use of a PPM framework for allocating human resources. This study addressed a gap in the project management literature by exploring the link between PPM practice and organizational culture.

Role of the Researcher

The principal investigator (PI) in this study obtained access to the sample of retail stores through permission of the group vice president, and district manager. The PI was responsible for the selection and recruitment of participants, as well as facilitating the administration of the OCAI survey at the beginning and end of the study. The PI also trained and facilitated the use of the PPM framework and human resource allocation tool, with the participants in the study, and was responsible for monthly check-ins with each store. The institutional review board (IRB) approved the application to conduct this study.

Participants

The participants selected were individuals from a sample of 7 retail stores located in the Midwest. The district manager and group vice president, for the participating
stores in this study, approved access to the participants for this study. Participants were recruited to this study via an email invite outlining the scope of the study. Once participants completed the consent form, the principle investigator PI administered the OCAI survey to assess the current organizational culture of the stores in the study, set up a training prior to the beginning of the study to review the PPM framework, and the human resource allocation tool to ensure the participants understood the process. The PI also utilized individual store visits and phone calls with the participants on a monthly basis to help with any questions regarding the framework or the allocation tool. Through the in-person visits and phone calls the PI established relationships with each store team.

In order to protect the privacy of the participants in this study, names were not collected in the data set; participants were coded with a key kept separate from the data in a password-protected file only accessed by the PI. Due to the nature of this study, there were no direct reporting relationships among participants. The information gathered did not pose any employment or job risk, and was not deemed to be harmful or detrimental if exposed, however, every effort was made to keep participant information completely confidential.

**Research Method and Design**

There are multiple research methods and strategies of inquiries available for designing a study. Matching the research method with the research problem being studied is a critical component for designing effective research (Creswell, 2003). The problem this study addressed is the lack of PPM practice in the human resource allocation process within each of the retail locations in this study. This study also addressed a gap
in the literature as to what effect PPM practice has on organizational culture. Because this study sought to understand the impact implementing PPM practice had on the organizational culture of the stores in the study, a quantitative experimental approach was used. Creswell (2003) defines a quantitative approach as:

One in which the investigator primarily uses postpositive claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistics data. (p. 21)

The quantitative method utilizes postpositive knowledge claims in order to challenge traditional knowledge and seek to understand through the scientific method (Phillips and Burbules, 2000). Thus a quantitative approach, in this study, was used as a means for understanding the causal effect of implementing PPM practice, and was measured to determine the outcomes or effects it had on organizational culture.

**Method**

Creswell (2013) suggests the use of a quantitative approach is beneficial for identifying influencing factors or the predictors of specific outcomes. Creswell also describes the benefits of a qualitative research approach if the researcher is exploring a topic that needs to be understood, but there is little research, or the research topic would benefit from hearing the voices of the participants. A third common research approach is a mixed methods study. Mixed methods research combines both quantitative and qualitative research methods, and synthesizing the research in order to aid the researcher in understanding multiple viewpoints (Johnson, Onwuegbuzie, & Turner, 2007). Within the fields of PPM and organizational culture, there is support for all three-research
methods. Cameron and Quinn (2011) highlight the differences between quantitative and qualitative methods of inquiry when researching organizational culture. While a qualitative approach to assessing organizational culture is often described as the best way to understand the culture of an organization, Cameron and Quinn emphasize the challenge in comparing multiple cultures becomes almost impossible if the researcher must immerse themselves in each culture to effectively measure and articulate it. In this sense, they suggest a quantitative approach is most effective when investigating multiple organizational cultures. While the parent company for the retail chain has an organizational culture as a whole, each store has its own distinct organizational culture.

Similarly, Janicijevic (2012) highlights how a quantitative approach is often used in order to explore different elements of culture, while a qualitative approach is often used to explore the more symbolic elements of culture within an organization. This study did not seek to subjectively define the culture of each participating store. An attempt to do this, would be time consuming, and lead to potentially different cultural definitions, making a qualitative or mixed method comparison across the sample group difficult to measure and understand. Thus, utilizing a quantitative approach for this study made it possible to use the same organizational culture measures through the OCAI survey, and a consistent measurement basis utilizing the CVF.

Measuring, observing, and understanding organizational culture is a complex undertaking. There are multiple viewpoints as to the benefits or drawbacks of quantitative or qualitative methods of inquiry with respect to organizational culture. Janicijevic (2012) highlights the diversity of research methods has advantages and
disadvantages in that researchers have an array of possible methods to explore organizational culture, and can choose the method that best suits their problem. Conversely, one of the challenges of having a well-developed, and diverse, body of research to draw on is choosing from the multiple methods for researching organizational culture. Recognizing the diverse number of variables and uniqueness the authors suggest the organizational culture instrument used should be based on the purpose it is being used and the context in which it is being applied. Cameron and Quinn (2011) suggested three strategies for measuring organizational culture: 1) a holistic approach where the investigator immerses himself in the culture and engages in in-depth observation, 2) a language or metaphorical approach by sifting through documents, stories, and conversations to understand and uncover cultural patterns, and finally 3) a quantitative approach where the investigator uses interviews or questionnaires to assess the dimensions of culture. Taking a quantitative approach, this study sought to utilize one of the most widely used organizational culture surveys, the OCAI, as part of the competing values framework, through the permission of Dr. Kim Cameron at the University of Michigan.

From a PM perspective, the growth of the field has identified a need for the PM community to actively promote academic research, and different research approaches on the topic (Kwak & Anbari, 2009). While the growth in the field of PM has led to more academic research, PM research must continue to grow. Soderlund (2011) suggests the field of PM incorporates multiple management and scientific fields, leading to multiple perspectives. Multiple perspectives play an important role in PPM, as each organization
is unique in what type of business they operate in, and how they go about executing strategic objectives. Similarly, measuring the success factors of PPM is broad and complex including; stakeholder perspectives, multiple strategic objectives, and multiple definitions of effectiveness (Patankal, 2015). Thus, this study sought to understand the organizational culture perspective of PPM practice. By seeking to understand the contextual factors, like organizational culture, this study followed recent PM research trends. Pollack and Adler (2015) highlight that much of previous research in PM focused on the technical aspects of PM. However, they point out a growing trend in PM research is emphasizing social impacts and organizational context.

**Research Design**

There are multiple quantitative research designs. Correlational research seeks to understand the relationship between two variables (Lomax, 2007). Descriptive quantitative research is concerned with understanding or defining the current state, and does not utilize an experiment (Borg & Gall, 1989). Finally, a quantitative experimental research design seeks to understand the effect of a prescribed treatment on a participant group (Creswell, 2003). A true experimental design, however, requires the use of random sampling. Because the goal of this study was to understand the affect PPM has on organizational culture, functional organizational groups were needed to apply the PPM process in order to observe its effects. Thus a quantitative experimental research design was utilized. As highlighted by Creswell (2003) an experimental quantitative research strategy is characterized by the assignment of subject’s specific treatment conditions, using pre-and post-test measures. True experimental design requires the random
assignment of treatment groups. Because the application of PPM process required it to be applied to a functional organizational group, it required the general manager to be the participant for each store.

This study used Cameron and Quinn’s (2011) competing values framework and the OCAI survey instrument in order to measure and analyze the participants’ views on organizational culture at the beginning and end of the study. The independent variable for each of the hypotheses in this study was the implementation of the PPM framework. The Dependent variable changed based on the hypothesis. The overall goal for measuring each of the variables in H1 through H4 was to determine the impact PPM had on organizational culture, and address a gap in the literature connection PPM and organizational culture. For H1 the dependent variable was the change in hierarchical culture within the CVF framework. This variable was measured in H1 as a decrease in hierarchical culture, which associated with a positive impact on organizational culture. For H2, dependent variable was the change in market culture on the CVF. The dependent variable for H3 was the change in clan culture on the CVF. Next the dependent variable for H4 was the change in adhocracy culture on the CVF. Finally, in addition to understanding the impact PPM has on organizational culture, the actual payroll performance for the stores in the study was an important variable so this led to the dependent variable for H5 to be the payroll performance for the stores in the sample group.
Research Questions

Research question 1: Does the implementation of PPM practice positively affect the position of the stores culture on the competing values framework (CVF) through a reduction in the hierarchical culture score?

Research question 2: Does PPM practice positively affect the market culture through strategy alignment?

Research question 3: Does PPM practice positively affect clan culture through stakeholder engagement?

Research question 4: Does PPM practice positively affect adhocracy culture through stakeholder engagement and strategy alignment?

Research question 5: Does PPM practice reduce the volatility of payroll performance through stores making payroll budgets for each month of the study?

Hypothesis

Hypothesis 1: The organizational culture of stores that implement PPM practice will be positively affected by a change in their position on the competing values framework by reducing the average (µ) hierarchical culture score (D). The null hypothesis (H₁₀) is stated as no change in the hierarchical score.

\[ H₁₀: \mu_Da=\mu_Db \]

\[ H₁ₐ: \mu_Da<\mu_Db \]

Hypothesis 2: Stores that implement PPM practice will see an increase in the average (µ) market culture (C) on the CVF through strategy alignment. The null hypothesis (H₂₀) is stated as no change in the market culture score.
Hypothesis 3: Stores that implement PPM practice will see an increase in the average \(\mu\) clan culture \((A)\) on the CVF through stakeholder engagement. The null hypothesis \((H_{30})\) is stated as no change in the clan culture score.

\[H_{30}: \mu_a=\mu_b\]

\[H_{3a}: \mu_a>\mu_b\]

Hypothesis 4: Stores that implement PPM practice will see an increase in average \(\mu\) adhocracy culture \((B)\) on the CVF through both stakeholder engagement and strategy alignment. The null hypothesis \((H_{40})\) is stated as no change in the adhocracy culture score.

\[H_{40}: \mu_a=\mu_b\]

\[H_{4a}: \mu_a>\mu_b\]

Hypothesis 5: Stores that implement PPM practice will have consistent payroll performance by making payroll \((P)\) budgets for each month \((3)\) in the study. The null hypothesis \((H_{50})\) is stated as less than three months payroll budget made.

\[H_{50}: P<3\]

\[H_{5a}: P=3\]

Population and Sampling

The population for this study consisted of 7 store managers holding the title of general manager, within one group of 8 retail stores, located in Midwest. The group of retail stores from which the sample was drawn from comprises a mix of store prototypes,
and store volumes similar to the mix of the entire population of overall organization’s retail locations. The criteria for inclusion in the study were general managers that hold primary decision-making authority at each store location. This position was chosen as it has the most interaction with the human resource allocation process within their respective stores through schedule oversight and business ownership for their areas. Additionally, the general manager for each retail store location has profit and loss responsibility for the store. The general manager oversees the assistant manager’s. Each assistant manager has different responsibilities within the store as assistant managers. The inclusion of assistant managers in this study was not approved by the organization for the purposes of this study. The general manager plays a key role in how human resources are allocated to each work area within the store. Hourly employees were not included in the sample as they have minimal involvement in how human resources are allocated, and generally do not have input in the allocation strategy. The extent hourly employees are involved is to check their weekly schedule to see what hours, days, and work area they are scheduled in, and therefore are not included in the sample for this study.

This study utilized a convenience sampling, by choosing a group, or setting, of individuals that are conveniently available to participate (Brewerton & Millward, 2001), and due to the experimental nature of the study of imposing a PPM framework on the sample in order to measure any impact on organizational culture, necessitating a captive sample, meaning partial participation would not yield complete results for the study. Brewerton and Millward (2001) caution the use of convenience samples due to potential
selection bias. However, this approach was chosen due to the ability of the researcher to obtain close to full participation of the population of a group of 7 stores in the study through volunteers. This study used an identical sampling relationship, where the sample members participated in both the pre-test and post-test.

The total number of participants in the sample group was 7. Participant data was excluded from the study if survey data was incomplete. Additionally participant data was omitted for participants that changed stores during the study, as the comparative survey data was completed in two different environments. The sample group members participated in a three month study, following the suggestion of Yauch and Steudel (2003) that studies looking at organizational culture should be 2-6 months in duration, due to the potential for broader influences to affect the organizational culture of the sample group over time (i.e. new leadership, new policies, change in business practice).

Data Collection

Just as there are many research approaches to studying organizational culture, there is also a plethora of instruments available for measuring organizational culture. Jung, Scott, and Davies (2009) explored the use of quantitative and qualitative instruments for measuring organizational culture and identified over seventy different instruments. For this quantitative study the PI sought to utilize an established, widely used instrument for measuring the organizational culture of the participants in this study by using the OCAI survey instrument, and the CVF. Cameron and Quinn (2011) emphasized the competing values aspect of the CVF as one with no perfect dimension when it comes to defining an organizational culture through the CVF. This aspect
allowed the participants to fill out the pre- and post-test surveys without a perceived right or wrong answer.

In order to minimize potential bias, results were aggregated across the sample group. Names were also not collected with the OCAI survey instrument. The results of the study are published without any information that will make it possible to identify a subject. All research data was stored via password locked files on the primary investigator’s computer, and backup files were stored on a password protected external hard drive stored in a secure location. Every effort was made to keep the data collected confidential; however, there was the possibility of information to be shared among participants.

**Instruments**

The OCAI instrument, developed by Cameron and Quinn (2011), focuses on two dimensions of organizational culture: the pattern dimension and the content dimension. The pattern dimension deals with the scoring of the instrument in order to develop a cultural profile, whereas content dimensions refer to the aspects of an organization that are used as cues in order for individuals to recognize the cultural values of the organization. The OCAI uses six content dimensions as a basis for the instrument:

1. The dominant characteristics of the organization, or what the overall organization is like.
2. The leadership style and approach that permeate the organization.
3. The management of employees or the style that characterizes how employees are treated and what the working environment is like.
4. The organizational glue or bonding mechanisms that hold the organization together.

5. The strategic emphases that define what areas of emphasis drive the organizations strategy.

6. The criteria for success that determine how victory is defined and what gets rewarded and celebrated. (Cameron & Quinn, 2011)

These content dimensions are assessed through the survey instrument and the patterns are translated into the competing values framework and the four cultural dimensions: hierarchical, adhocracy, market, or clan. Kalliath, Bluedorn, and Gillespie (1999) tested the reliability of each of the four culture types and determined each to be reliable, with reliability coefficients above .80 for each culture type: hierarchical (.80), adhocracy (.83), market (.83), and clan (.90). The validity of the OCAI instrument was established by Cameron and Freeman (1991), where they determined strong evidence of concurrent validity. Additionally, Quinn and Spreitzer (1991) established both convergent and discriminant validity for the OCAI instrument.

The OCAI uses an ipsative rating scale, study participants answered questions on the pre and post-study survey by dividing 100 points among six items: dominant characteristics, organizational leadership, management of employees, organization glue, strategic emphasis, and criteria success. Responses were collected for both the current assessment of the organizational culture, and the preferred cultural state of the organization. Each of the responses translates to a score for each of the four cultural dimensions on the CVF, hierarchical, clan, adhocracy, and market. The scores for each
of these dimensions were used as the dependent variables for this study, as addressed in the hypotheses. The independent variable in this study was the implementation of the PPM framework in the participating stores.

In order to address threats to validity and test-retest reliability, participants were not provided with a description of the culture types at any point in the study in order to minimize perceived right or wrong answers. Additionally participants were provided with their pre-study responses, but not their future culture responses, prior to taking the post-study survey, in order to prevent any anchoring effect to the participants perceived ideal future culture. Surveys were not adjusted in any way. Data from survey responses were then scored and plotted on the competing values framework to determine the dominant cultural dimensions at each store, and for the entire population of the study.

Procedure

This study utilized a one-group pre-test post-test design, using a pre-experiment survey, treatment, and post experiment survey. Since the goal of this paper was to understand the effect PPM has on organizational culture, the single group design was used since the comparison were drawn from the same group in order to measure change. The treatment group participated in the pre- and post-test OCAI survey and received the treatment.

Experiment Design

Treatment Group A: \( O_1 \rightarrow X_1 \rightarrow O_2 \)

Once the initial OCAI survey was completed \( (O_1) \), the participants were given the PPM process \( (X_1) \) as outlined by Jonas (2010), along with the human resource allocation
tool (Appendix C). The human resource allocation tool was designed by the PI as a means to plan and allocate human resources. Nightingale (2000) highlights that allocation quality in PPM is dependent on the ability of the firm to allocate resources efficiently. Additionally, several researchers have shown the importance of adequate human resource allocation as a success factor in both single project, and multiple project environments (Fricke & Shenhar, 2000; Pinto & Covin, 1989; Pinto & Prescott, 1989; Pinto & Rouhiainen, 2001).

The PPM process involved four distinct chronological phases: 1) portfolio structuring, 2) resource management, 3) portfolio steering, and 4) organizational learning. Participants completed each of these steps each month, over a three-month period. The portfolio-structuring phase involved the development of a strategic plan for addressing key priorities. This phase was discussed among the participants of the study within their individual stores in order to establish strategic priorities for upcoming months. The portfolio structuring phase and accompanying meeting occurred two weeks prior to the beginning of the upcoming month. Once the participants established the strategic priorities, the resource management phase was initiated, and participants utilized the human resource allocation tool to distribute payroll hours based on the strategic priorities set forth in phase one. Following the second phase, the portfolio steering phase involved a weekly review of the human resource allocation tool at the weekly leadership meeting in order to assess how closely actual resource allocations were to the original plan. Additionally, as part of phase three, the human resource allocation tool was adjusted based on actual allocations versus intended (e.g. if actual resource allocation varied from
the original plan, adjustments were made to subsequent weeks in order to correct or offset the variance to plan). Finally, the organizational learning phase was completed at the conclusion of the accounting month in order to assess the overall performance of human resource allocation plan and the established strategic priorities for the previous month. In this phase, notes and comments were then incorporated into the portfolio-structuring phase for the following month. Following the completion of the three-month experiment, participants completed the same OCAI survey ($O_2$).

**Data Collection Technique**

Survey responses were collected via completed pre- and post-test surveys emailed to the participants. A list of survey questions is listed in Appendix A. Data for payroll performance reporting was collected monthly for each store participating in the study via access to financial reporting for each store, obtained by the PI with permission of the district manager and group vice president. Payroll data was collected based on whether or not the stores in the study made their payroll hours monthly budget, as well as whether or not the entire sample group made its payroll hours monthly budget.

**Data Organization Techniques**

Data for the study was logged in a password-protected Microsoft Excel file. In order to protect the privacy of participants, participant names were not recorded in any way other than in the code key. Participants were assigned a 9-digit number randomly, which was used for both pre- and post-test survey responses. Once the participants were coded the code key was kept in a separate password-protected file located on an external hard drive. Raw data was not made available to participants at any point in the study.
Participants were only provided with post-published results of this study at their request. Pre- and post-test survey responses were matched by participant, and participants were grouped by store location. The data for the entire study was also aggregated together in order to measure the overall affect implementing PPM practice has on organizational culture.

**Data Analysis Technique**

Through the use of the OCAI survey instrument, this study utilized a pre- and post-test approach with the sample groups in order address the research questions. The data was analyzed using Microsoft Excel. Each participant was coded using a randomly assigned 9-digit number. Each participant utilized the same number code for both pre- and post-test survey responses. The data assessed for \( H1 \) measured whether or not the hierarchical cultural dimension score decreased at the store level, and aggregate level. A paired t-test was used to analyze \( H1 \) as the same group was tested at two different times, before and after the implementation of the PPM process. The paired t-test was computed for each store in the sample group, along with the combined aggregate data for all stores in the study. Results were compared across each organizational culture type for pre- and post-test results in order to understand any change in cultural dimensions overall. \( H2, H3 \) and \( H4 \) utilized Hartnell, Ou, and Kinicki’s (2011) research on the CVF and directional changes in culture type. A paired t-test was also used to determine the direction of the relationship between the culture types measured by whether or not there was an increase in the cultural dimension. Since this study was concerned with measuring the positive
impact of PPM on organizational culture, a one tailed t-test was employed to understand whether the relationship was positive.

\( H_2 \) was measured by analyzing pre- and post-market culture survey results, and assessing any positive increase in the market culture score, as the market culture is more closely associated with financial and operational effectiveness. \( H_3 \) was measured by looking at pre-and post-test clan culture results from the survey, assessing any positive increase in the clan cultural score, as the clan cultural dimension is strongly associated with positive employee attitudes and engagement. \( H_4 \) was measured by analyzing pre- and post-test adhocracy results together in order to measure any positive increase in the adhocracy culture score. Finally, for \( H_5 \), data was collected regarding human resource allocation effectiveness by payroll performance over the course of the study, for the participating stores. Monthly payroll performance was plotted for each store in order to determine which stores made their payroll budget for each of the three months of the study.

Due to the gap in the literature directly linking PPM practice to an effect on organizational culture, multiple hypothesis were developed based on the two connecting themes of strategy alignment and stakeholder engagement as outlined in the conceptual framework. The cultural dimensions within the CVF were then utilized to measure the change in organizational culture in the participating stores. With each of the four hypotheses concerned with PPM’s effect on organizational culture (\( H_1-H_4 \)), it is possible for all four to be confirmed to varying degrees of strength. As such, one hypothesis does not mutually exclude another.
Reliability and Validity

The reliability and validity of a study are important considerations as to the usefulness of its output. This study utilized the OCAI survey instrument, which has been recognized to be both reliable and valid in multiple studies (Cameron & Quinn, 2011). In addition to the use of a reliable and valid instrument, the following additional steps were taken to address reliability and validity in this study.

Reliability

Reliability is measured by the consistency of results obtained through a survey instrument, and is an indicator of error in instrumentation (Huck & Cormier, 1996). Reliability with respect to the OCAI survey instrument deals with how consistently the instrument measures the different culture types. In addition to Kalliath, Bluedorn, and Gillespie’s (1999) work that showed reliability coefficients over .80 for each culture type, Quinn and Spreitzer (1991) utilized Cronbach alpha coefficients for each culture type assessed in the OCAI instrument, and determined significant statistical significance for each coefficient: clan .74, adhocracy .79, hierarchy .73, and market .71. This meant survey respondents rated the culture of their organizations consistently across the survey instrument. In addition to this study, many other studies have been conducted and shown consistency in upholding the reliability of the OCAI instrument (Cameron & Quinn, 2011). The desired confidence level for the results of this study, based on sample size and response rate was 95% (alpha = 0.05).
Validity

Threats to validity arise both internally and externally and can hinder the ability for the experimenter to determine whether or not the intervention affects an outcome (Creswell, 2003). Campbell and Stanley (2015) highlight eight extraneous variables as threats to internal validity that must be controlled, which, if not addressed may confound the effect of the experimental stimulus.

History. Events that occurred between the pre- and post-test survey were deemed to be normal operations for the participants in the study. Survey responses were omitted for any participant that moved from one store to another, as their context for the pre- and post-test survey was different.

Maturation. The three-month length of the study minimized the affect maturation had on the participants. While it is possible some maturation occurred over length of the study, the effect it had on survey responses was deemed to be minimal, as the PPM process implemented did not inform the participants about the different cultural dimensions within the CVF. While it is possible that participants could have researched the CVF on their own, in order to gain a better understanding of the framework, it was not encouraged by the PI as the pre- and post-test survey were administered with only the directions to complete the survey, and no additional information regarding the OCAI or the CVF was provided.

Testing. In order to prevent any response bias, or pre-conditioning, the purpose of the study was not disclosed to the participants. In addition, the dimensional aspect of the OCAI survey and the CVF highlight that there is not necessarily a right or wrong culture
type, and that organizational culture is often a unique combination of dimensions leading to a specific orientation on the CVF, therefore preventing the influence of perceived right or wrong answers to the survey questions.

**Instrumentation.** Quinn and Spreitzer (1991) assessed the validity of the OCAI survey instrument by using a multitrait-multimethod analysis and multi-dimensional scaling analysis. For the multitrait-multimethod analysis, convergent and discriminant validity were supported. Their multi-dimensional scaling analysis also supported both convergent and discriminant validity. Many additional studies (Cameron & Quinn, 2011) have looked at the validity of the OCAI instrument and determined it to be valid. Additionally, the OCAI survey was not altered in any way for the pre- and post-test administration.

**Statistical regression.** Since this study used a one-group pre-test post-test design, randomization was not used. However, in order to address this threat to validity, extreme scores for both pre-and post-test surveys were omitted.

**Selection.** Random group assignment was not possible due to the nature of this study; however, the study did include the entire population of one group of 7 stores, in order to prevent bias of selecting only some stores within the district.

**Experimenter bias.** Similar to the concerns with testing validity, the PI withheld the scope and purpose of the study, and did not disclose that the study was designed to explore the potential impact of PPM on organizational culture. Additionally, the use of the CVF, and it’s multiple cultural dimensions, did not give a clear right or wrong answer
to the survey questions, nor did the PI suggest any benefits of one cultural dimension over another.

**Mortality.** Any results of study participants who withdrew from the study prior to full completion were removed in order to prevent any skewed results.

From an external perspective, threats to validity arise when incorrect conclusions are drawn from the sample data to other settings, persons, or situations (Creswell, 2003). Campbell and Stanley (2015) suggest four threats to external validity that should be addressed in experimental research.

**Reactive effect of testing.** In order to address potential reactive effects of testing, this study utilized a t-test to determine statistical significance for each of the hypotheses measuring organizational culture in order to mitigate respondent’s sensitivity in which the pre-test itself might influence post-test survey responses. Additionally, participants were not provided any cues as to the different culture types within the CVF, so as not to influence right or wrong survey responses.

**Interaction effects of selection biases.** Due to the nature of PPM and the necessity to incorporate the PPM process at each store in the study, an entire district of stores was targeted. Thus, participants were not individually selected, almost the entire population the general managers for one group of stores selected participated in the study. Results were only omitted for previously identified criteria.

**Reactive effects of experimental arrangements.** This study sought to measure the effect incorporating a PPM process has on organizational culture. The results of this
study were reported based on the experiment, and the PI did not seek extend definitive generalizations beyond the scope of this study.

**Multiple-treatment interference.** The participants in this study were not exposed to prior treatments by the PI, or any other experiment using PPM or the CVF, minimizing any potential interference with participant responses. Additionally, each of the participants received no prior formal training in PM or PPM, and did not carry and formal project or portfolio management certifications. The extent of the participants’ knowledge of PM principles was limited to basic business principles of working within the confines of budget, time, and business goals. Though the participants were proficient at general business tasks, the formal structure of the PPM process was unfamiliar, minimizing any potential interference with the experiment and responses from the participants.

**Summary**

This section provided the research method and design in support of the purpose statement for this study. The PI sought to address the purpose of the study through a one-group pre-test post-test experimental approach, utilizing a pre-test, post-test, experimental design. Also, this section described the PI’s approach to data collection and analysis, along with controlling for factors affecting reliability and validity, in order provide a foundation for the overall study.
Section 3: Application to Professional Practice and Implications for Change

The purpose of this one-group pre-test post-test experimental study was to address a gap in business practice in how human resources are allocated within the retail locations of the organization chosen for this study by implementing a PPM process in the participating store locations. Though PPM has shown strong links to improved ROI, and higher project completion rates (PMI, 2013a), there is a gap in the literature regarding the effect implementing PPM has on organizational culture. In order to measure PPM’s effect on organizational culture this study utilized the competing values framework, and measured the effect PPM had on the cultural dimensions within the CVF. This section begins with an overview of the study, and then is followed by a presentation of the findings. Next it addresses how the study applies to professional practice, and then makes recommendations for action and further study. Finally this section concludes with overall reflections of the study and a final summary and conclusion for the study.

Overview of Study

This study utilized a three-month one-group pre-test post-test experimental design, with a group of general managers that manage retail store locations in the Midwest for a large general merchandise retailer. The experiment involved the implementation of Jonas’ (2010) four phases of the PPM process: portfolio structuring, resource management, portfolio steering, and organizational learning. The participating stores utilized a human resource allocation tool developed specifically to match the business needs of the retailer, and allow for the participants to effectively manage resources across the four phases.
The significance in the scope of this study was that it sought to apply the PPM process across multiple individual organizations. While each of the general managers, and their respective retail locations, operate within the same overall organization, each of the retail store locations they operate are effectively separate organizations with respect to how resources are allocated within each of their buildings. Seeking to implement the PPM process and measure its effect on organizational culture within different companies all together would prove challenging as each company operates in distinctly different environments. As such, this backdrop provided for a comparison of like organization types in which there was no established PPM process, and provided a conducive environment for both implementing the PPM process into organizations with no previous PPM process experience, as well as like organizations such that the participating locations can be compared.

The participants included 8 general managers and their respective retail locations, of which 1 general manager left the company during the experiment, resulting in 7 total participants. The participants completed a pre-test and post-test survey utilizing the OCAI survey instrument for measuring organizational culture, and were then trained in the PPM process and the human resource allocation tool by the PI through individual site visits, or via phone. The PI then completed weekly check-ins with each participant to ensure each phase of the PPM process was being followed, and to answer any questions with regards to the PPM phases or the human resource allocation tool. Additionally, each of the experiment participants completed the PPM process form (Appendix B) with notes for each phase, and turned them into the PI for each of the three months throughout the
study. Both groups completed the post-test OCAI survey upon completion of the three-month timeframe of the study.

Much of the literature on PPM has focused on its strategic benefits, specifically on improving ROI, organizational performance and project success (PMI, 2015). These benefits are brought about by two key elements within PPM practice, strategy alignment and stakeholder engagement. Though there is minimal literature related to PPM’s effect on organizational culture, PPM and organizational culture share these two common themes. This study focused on these two themes and utilized the OCAI survey and the CVF to measure any effect PPM has on organizational culture through a series of research questions that were used to develop the hypotheses for this paper.

Within the CVF, Cameron and Quinn (2011) highlight that each culture type has benefits and drawbacks; however, they suggest that a reduction in the hierarchical culture score leads to less micromanagement, reduces unneeded paperwork, processes, and rules, thereby freeing the organization from unnecessary constraints. These constraints work against common themes of strategy alignment and stakeholder engagement, and thus provides the basis for RQ1: Does the implementation of PPM practice positively affect the position of the stores culture on the Competing Values Framework (CVF) through a reduction in the hierarchical culture score?

Research questions 2, 3, and 4 utilized Hartnell, Ou, and Kinicki’s (2011) meta-analysis of the CVF in order to connect the themes of strategy alignment and stakeholder engagement to the culture types within the CVF in order to understand the directional effect on culture type. Research question two specifically dealt with the market culture
type, and its link to strategy alignment through operational and financial effectiveness (2011). RQ2 Does PPM practices positively affect the market culture through strategy alignment? Research question three specifically looked at the clan culture type, which Hartnell, Ou, and Kinicki (2011) suggest is most closely associated with positive employee engagement and attitudes, which aligns with the common theme of stakeholder engagement. This led to RQ3: Does PPM practices positively affect clan culture through stakeholder engagement? Research question four focused on the adhocracy culture type as being influenced by both stakeholder engagement and strategy alignment, and a move toward the upper right quadrant of the CVF leading to RQ4 Does PPM practice positively affect adhocracy culture through stakeholder engagement and strategy alignment? Finally research question five focused on the efficient use of resources within the organization by measuring payroll performance across the participating stores, leading to RQ5 Does PPM practice reduce the volatility of payroll performance through stores making payroll budgets for each month of the study?

Overall the study results showed a positive affect on the adhocracy culture type, confirming hypothesis 4, and a negative affect on the market culture type moving. The affect on both hierarchical culture (H1), and clan culture (H3) was not shown to be statistically significant, and hypothesis 5 was rejected due to only 3 stores making their payroll budget over the three-month period.

**Presentation of the Findings**

This paper proposed five hypothesis with respect to the affect the PPM process has on the organizational culture of the store, and how it affected payroll performance.
Hypothesis one through four deal with organizational culture and utilized the CVF to plot pre and post-test survey results in order to identify any shift in culture type across the four dimensions (Figure 3). Then the pre and post-test survey results were analyzed using a paired t-test for dependent means to determine statistical significance. The CVF is established along two axes’. The vertical axis spans from stability and control to flexibility and discretion, while the horizontal axis describes the focus of the organization from internal to external. From an overall perspective, the organizational culture saw a shift along the vertical axis toward flexibility and discretion, aided by a decrease in market culture and increases in clan and adhocracy culture. Though the overall view of the OCAI survey results plotted on the CVF provides the direction of the culture shift, the results of the t-test’s for each of the 4 cultural hypothesis were mixed.
In order to test the hypotheses for this study, the pre-test and post-test results for the OCAI survey were analyzed and plotted on the CVF framework in order to measure any change in culture type and how that change related to hypotheses 1 through 4 (Table 1). The results for hypothesis 5 reviewed the payroll performance for each month of the study by store location. Overall the results of the pre and post-test OCAI survey results based on the CVF showed a slight increase in the hierarchical culture type (0.07), a decrease in the market culture (-3.91), an increase in the clan culture (1.16), and finally an increase in the adhocracy culture score (2.66). Payroll performance for the participant

Figure 3. Competing values framework study results
stores individually resulted in 3 stores making each of the three months of the study, two stores making two of the three months, and two stores making payroll one month during the study period. Collectively the participant group made payroll plan for each of the three months.

Table 1

**Study results: pre and post-test means by culture type**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre A</th>
<th>Post A</th>
<th>Pre B</th>
<th>Post B</th>
<th>Pre C</th>
<th>Post C</th>
<th>Pre D</th>
<th>Post D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store 1</td>
<td>31.67</td>
<td>30</td>
<td>18.33</td>
<td>22.5</td>
<td>27.5</td>
<td>24.17</td>
<td>22.5</td>
<td>23.33</td>
</tr>
<tr>
<td>Store 2</td>
<td>31.67</td>
<td>33.33</td>
<td>18.33</td>
<td>20</td>
<td>23.33</td>
<td>24.17</td>
<td>26.67</td>
<td>22.5</td>
</tr>
<tr>
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<td>29.17</td>
<td>16.67</td>
<td>14.17</td>
<td>34.17</td>
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<td>40</td>
<td>36.67</td>
<td>25.83</td>
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</tbody>
</table>

Mean 24.17 25.33 15.48 18.14 37.86 33.95 22.5 22.57

A: Clan  B: Adhocracy  C: Market  D: Hierarchical

**Hypothesis 1: Test Hierarchical Culture (D in Table 1)**

Cameron and Quinn (2011) describe hierarchical culture, as a culture that is internally focused and has a need for stability and control. They suggest a reduction in the hierarchical culture score can lead to less micromanagement, and reduce unnecessary rules, processes, and procedures. Through the conceptual framework and the common themes of strategy alignment and stakeholder engagement, H1 utilized Beringer, Jonas, and Gemunden’s (2012) assertion that PPM practice aligns strategy and engages stakeholders. Then it connected the strategy alignment and stakeholder engagement as elements that positively impact organizational culture (Alagaraja & Schuck, 2015). Thus
H1 suggested a decrease in the hierarchical score, but the results of the pre and post-test surveys showed a slight increase of 0.07. However, the results of the t test for H1 were not shown to be statistically significant. The computed test statistic was .04895 with a critical value of 1.94318 (one-tail t test), resulting in an inability to reject the null hypothesis.

Table 2.

**Hypothesis 1 results for hierarchical culture**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Hierarchical D</td>
<td></td>
<td>7</td>
<td>22.5</td>
<td>3.5999</td>
</tr>
<tr>
<td>t-stat</td>
<td></td>
<td>0.04895</td>
<td>1.94318</td>
<td>0.48127</td>
</tr>
<tr>
<td>CV(1-tail)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reject Null?</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 2: Test Market Culture (C in Table 1)**

H2 focused on the market culture type as a culture that is concerned with competition, and that motivation is determined by clear goals and rewards (Cameron & Quinn, 1999). The market culture score was the highest culture score for both the pre and post-test surveys, 37.86 and 33.95 respectively. This suggests the dominant culture type of the participants in this study is the market culture type, and one where focus is on stability and control on the vertical axis of the CVF, as well as externally focused along the horizontal axis. Utilizing Hartnell, Ou, and Kinicki’s (2011) meta-analysis of the CVF, they found strong support for market culture and financial effectiveness through clear goals and incentives, coinciding with Lichtenthaler and Vollmoeller’s (2009)
findings that a high level of PPM within an organization leads to higher levels of strategy alignment. What was unexpected with the results for $H2$ was a decrease of 3.91 in the market culture score, while $H2$ suggested an increase. The $t$-test for $H2$ was shown to be statistically significant with a test statistic of 2.89118 and a critical value of 1.93 (1 tail), and a p value of .01383 (1 tail), resulting in the ability to reject the null hypothesis, and a confirmation of the results at the desire 95% confidence level. Additionally $H2$ had a Pearson R of 0.965 indicating a very strong correlation. Along the axes of the CVF the negative shift in market culture type showed a move toward flexibility and discretion on the vertical axis, a shift toward an internal focus.

Though the negative shift in market culture type moves in the opposite direction suggested by $H2$ the shift is relevant in that it shows a balancing of culture types within the CVF by reducing the dominant culture type. This shift was driven by large decreases within three of the rating categories within the OCAI. Response 1C saw an average decrease of -6 and states “The organization is very results oriented. A major concern is with getting the job done and people are very competitive and achievement oriented.” Likewise response 2C saw a decrease of -7, and states “The leadership in the organization is generally considered to exemplify an aggressive, results-oriented, no-nonsense focus.” Finally, response 5C saw the biggest average decline across the participants of -9. 5C states, “The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.” Each of these reductions shows a decrease in what is a dominant results focus within the organizations in this study. This reduction in the dominant culture type, though opposite of the hypothesis,
does align with Killen and Kjaer’s (2012) description of PPM as a holistic framework for strategy management.

An additional consideration to the results for $H2$ is the hypothesis for this study were drawn from the literature, and not based specifically on pre-test survey results. Due to ipsative rating scale used in the OCAI, survey responses for each of the six organizational categories, responses for each category total 100 points. Cameron and Quinn (2011) highlight the emphasis in the OCAI survey is the tradeoffs associated with each culture type, and a reduction in one leads to an increase in another. As such, the reduction in market culture score, even though it contradicted $H2$, provides insight as to the balancing of culture types, and should be studied in future research.

Table 3

*Hypothesis 2 results for market culture*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>$M$</th>
<th>$SD$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market C</td>
<td>7</td>
<td>37.85571</td>
<td>9.88103</td>
<td>33.95429</td>
<td>7.07918</td>
</tr>
</tbody>
</table>

$t$-stat $CV(1$-tail $) p$ Reject Null? Pearson $R$

| 2.89118 | 1.94318 | 0.01383 | Yes | 0.965 |

*Hypothesis 3: Test Clan Culture (A in Table 1)*

The clan culture dimension focuses on the positive relationship between employee involvement, teamwork, participation and open communication leads to positive employee morale and job satisfaction (Cameron et al., 2006). These attributes align with the attributes of stakeholder engagement. Therefore $H3$ sought to utilize the cultural
impact of stakeholder engagement, and the functional aspect of stakeholder engagement within PPM practice (PMI, 2013b). As such $H3$ suggested an increase in clan culture score. The OCAI survey results showed an increase in clan culture of 1.16, however, the results were not shown to be statistically significant (Table 4), with a test statistic of 1.24 and a one tail critical value of 1.94, resulting in an inability to reject the null hypothesis. Though the results showed an increase in clan culture, the results were not statistically significant, and require further examination in future studies.

Table 4

*Hypothesis 3 results for clan culture*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N$</td>
<td>$M$</td>
</tr>
<tr>
<td>Clan A</td>
<td>7</td>
<td>24.16714</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$t$-stat</th>
<th>$CV$ (1-tail)</th>
<th>$p$</th>
<th>Reject Null?</th>
<th>Pearson $R$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.24398</td>
<td>1.94318</td>
<td>0.12995</td>
<td>No</td>
<td>0.92563</td>
</tr>
</tbody>
</table>

*Hypothesis 4: Test Adhocracy Culture (B in Table 1)*

$H4$ looked at the adhocracy culture type as a culture of growth, development and adaptability. Whereas the market culture type is most closely associated to the theme strategy alignment, and clan culture is most closely associated with the theme of stakeholder engagement, adhocracy culture combines flexibility and discretion, as well as an external focus. Thus $H4$ suggested that Adhocracy culture would be affected by both strategy alignment and stakeholder engagement. The results for $H4$ showed an increase of 2.66. The t-test for $H4$ (Table 5) was shown to be statistically significant with a test
statistic of 2.72236, and a one tailed critical value of 1.94, and the ability to reject the null hypothesis. The results also yielded a one tailed p value of .01727, and a confirmation of the results at the desire 95% confidence level, and a Pearson R of 0.47502 for a moderate correlation.

Within the OCAI survey there were two responses, 3B and 5B, that showed large average increases across the participant group. Response 3B saw an average increase of 6.4. Response 3B states, “The management style in the organization is characterized by individual risk-taking, innovation, freedom, and uniqueness. Response 5B saw an average increase of 6 across the participant group. Response 5B states, “The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.” These large increases in the 3rd content dimension (response 3B) and the 5th content dimension (response 5B) align closely with H4 where the adhocracy culture type will be affected by both stakeholder engagement and strategy alignment. Within the 6 content dimensions for the OCAI, Cameron and Quinn (2011) describe the 3rd content dimension as relating to the management of employees and characterize the work environment and how employees are treated. Likewise, the 5th content dimension deals directly with the strategic emphases that drive the organizations strategy. The large increases within these two content dimensions suggest PPM practice affects organizational culture through both strategy alignment and stakeholder engagement. Though the results of the study show an increase in adhocracy culture, it should be noted that it did not result in a shift large
enough to change the dominant culture type, and the adhocracy culture type is still the lowest of the four culture types.

Table 5

_Hypothesis 4 results for adhocracy culture_

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Adhocracy B</td>
<td>7</td>
<td>15.47571</td>
<td>2.34913</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>t-stat</th>
<th>CV(1-tail)</th>
<th>p</th>
<th>Reject Null?</th>
<th>Pearson R</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.72236</td>
<td>1.94318</td>
<td>0.01727</td>
<td>Yes</td>
<td>0.47502</td>
</tr>
</tbody>
</table>

_Hypothesis 5: Test Payroll Performance_

One of the main benefits to organizations that effectively utilize PPM is higher project success rates, and a higher likelihood of meeting project budgets (PMI 2013a). _H5_ sought to measure how well each of the participants performed with regards to meeting their payroll budgets for each of the three months throughout the study. Results for _H5_ were mixed in that the entire participant group collectively made the payroll budget for each of the three months, however three stores made all three months individually, two stores made two of the three months, and two stores only made their payroll budget for one of the three months during the study (Table 6). Though the PPM process provided a structure for planning how the payroll budget was going to be spent each month, and a process for monitoring payroll performance throughout the month, it
did not provide strict payroll controls, and payroll performance was ultimately up to the discretion of the general manager, and the individual stores capability to manage it.

While the collective payroll performance of the entire participant group of stores met the criteria for $H5$, collective performance does not result in individual performance. There are multiple factors that could cause a store to make or miss their payroll budget including: sales trends at the particular location, staffing needs, previous month payroll performance, short-term operational challenges, and full year payroll performance.

Within the three months measured, five of seven stores made at least 2 months, and each month measured had more stores make their budget than miss. Likewise five of seven stores showed a positive trend in their payroll performance. Despite the positive trends, the hypothesis predicted each store to make its payroll budget for each of the three months of the study. Thus $H5$ cannot be confirmed, and further research should be considered specifically addressing PPM and payroll performance.

Table 6

*Hypothesis 5 results for payroll performance*

<table>
<thead>
<tr>
<th>Store</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store 1</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Store 2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Store 3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Store 4</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Store 5</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Store 6</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Store 7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Applications to Professional Practice

Creating a competitive advantage is a key strategic priority for any organization. As highlighted in the literature review, the benefits of PPM and organizational culture are well documented in the literature. However, Cameron and Quinn (2011) highlight the importance of defining the cultural position that best fits with the desired strategic direction of the organization. Thus, with the growth of PPM within organizations beyond just project-based businesses, firms should consider the impact PPM has on organizational culture as part of their strategy making process. The strategic benefits of PPM are well documented in the literature (Ahlemann, Teuteberg, & Vogelsang, 2009; Kock & Gemunden, 2012: PMI, 2015), likewise, organizational culture is also well supported as a driver of organizational performance (Gallagher, Brown, & Brown, 2008; Hartnell et al., 2011). In order to aid organizational leaders, portfolio managers, and project managers in there implementation and execution of PPM, this paper sought to provide directional insight with regards to the change in organizational culture type due to the implementation and use of Jonas’s (2010) PPM process leading to three key applications for business practice, 1) cultural consideration, 2) cultural direction, and 3) resource allocation. Finally the themes of stewardship and intrinsic value of employees led to two key implications for a biblical framework.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong></td>
<td>The organizational culture of stores that implement PPM practice will be positively affected by a change in their position on the competing values framework by reducing the hierarchical culture score (U).</td>
</tr>
<tr>
<td></td>
<td>Stores that implement PPM practice will see an increase in market culture (M) on the CVF through strategy alignment.</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>$H_3$</td>
<td>Stores that implement PPM practice will see an increase in clan culture (C) on the CVF through stakeholder engagement.</td>
</tr>
<tr>
<td>$H_4$</td>
<td>Stores that implement PPM practice will see an increase in adhocracy culture (A) on the CVF through both stakeholder engagement and strategy alignment.</td>
</tr>
<tr>
<td>$H_5$</td>
<td>Stores that implement PPM practice will have consistent payroll performance by making payroll (P) budgets for each month (3) in the study.</td>
</tr>
</tbody>
</table>

Figure 4. Summary of hypothesis results

**Cultural Consideration**

The prominence of organizational culture both in business practice and in academic literature consistently leads to careful consideration and cultivation within organizations. However, an important consideration for portfolio managers, project managers, and leaders at the organizational level, is the current state of the culture of the organization, how does that fit with the ideal cultural state, and what are the potential cultural effects of implementing PPM. This study was concerned with understanding the cultural starting point within each of the CVF dimensions for the purposes of measuring change in order to understand the directional effects implementing PPM has on organizational culture. However, in an organizational setting, the purpose of assessing organizational culture is to understand the current culture, and how close it is in
proximity to the ideal cultural state. From a practical standpoint, firms already have an established organizational culture, and depending on the size of the organization, its own measurement system, and should consider PPM’s impact within their own framework.

When considering the culture of the organization, this study provided key insights for project portfolio managers and project managers. First consideration of dominant, moderate, and weak culture types within the organization can not only help leaders understand their culture, but also understand how it could be impacted by implementing a strategic process like PPM. This was evident in the study results with the reduction of the dominant market culture in $H_2$, and the subsequent increase in the weaker adhocracy culture score in $H_4$. Conversely, the moderate culture types, clan and hierarchical, saw a small increase, and no increase respectively. Second, as the conceptual framework for this paper laid out, the common themes of strategy alignment and stakeholder engagement in PPM and organizational culture may apply pressure on the dominant and weak culture types, where the moderate culture types may be less affected. Finally, those in charge of implementing and executing PPM should consider the ideal cultural state the organization is striving for in order to gauge the impact PPM practice will have on organizational culture, as well as what other programs and strategic initiatives will be engaged in in order to support the pursuit of the ideal culture that sustains a competitive advantage.

**Cultural Direction**

The second application for business practice deals with cultural direction. Understanding the directional impact PPM has on organizational culture was one of the
main purposes of this paper in order to help inform PPM practice. While the hypothesis results for the cultural dimensions (H1-H4) were mixed, they still provided key insights for project portfolio managers and organizational leaders as to the directional effects PPM has on organizational culture to consider when implementing and executing PPM within their organizations.

Though there are negative connotations with regards to the hierarchical culture type through increased bureaucracy and micro-management, it is important to consider the need for structure and control in any organization. Though the benefits of PPM suggest a reduction in the hierarchical score, the PPM process itself provides structure and control within the strategy making process. When implementing and executing PPM, project and portfolio managers should consider the current stability and control systems in order to understand how PPM may affect them. While this study showed little change in the hierarchical culture score, the change might be more significant within different types of organizations. H1 focused on hierarchical culture, and was associated with a negative relationship to strategy alignment and stakeholder engagement. The implementation of the PPM process provided a structure for resource allocation to the stores within the study that was not previously there. Though the hypothesized reduction in hierarchical culture did not occur, project portfolio managers should consider the stability and control processes and culture within their organization, in order to understand the impact PPM may have on their specific organization.

Second, project portfolio managers should consider the dominant and weak cultural dimensions in order to assess the possible impact PPM will have. PPM is
described as a holistic approach for strategic management and decision-making (Fiala, Arlt, & Arltova, 2014; Killen & Kjaer, 2012). Because of this, project portfolio managers should consider the balancing effects PPM can have on the culture of their organization. H2 associated market culture with a positive relationship to strategy alignment. Though the results were opposite from the stated hypothesis, the reduction in market culture score, and the subsequent increase in adhocracy and clan culture, showed a decrease in the dominant culture type for the participant group. These changes led to a balancing across the CVF, through a reduction in the dominant market culture, and an increase in weaker adhocracy culture.

While Cameron and Quinn (2011) emphasize that there is no perfect culture type, each organization typically has a dominant culture. In the case of the participant group, the dominant culture was clearly a market culture. Cameron and Quinn suggest a decrease in the market culture type means a refocus on key goals, and a reduction in driving for numbers at all costs. Likewise a reduction in the market culture score shows a realization that the organization needs to adapt to both human and market needs and constantly motivate the people within the organization. The focus on human needs was evident in the increase in clan culture in H3. The clan culture type for H3 was associated with a positive relationship to stakeholder engagement. Though the results showed a positive increase, as proposed by H3, the results were not statistically significant, and require further research in order to be relied on statistically. However, project and portfolio managers should consider stakeholders along side business and project results
as the stakeholder engagement has been shown as a driver of firm performance (Harrison, Bosse, & Phillips, 2010).

*H4* provided insight as to the affect PPM has on both strategy alignment and stakeholder engagement. The adhocracy culture score was positively impacted with an increase of +2.66. The results for *H4* were shown to be statistically significant. Digging into the specific OCAI survey results, the largest increase in the adhocracy score occurred within the content dimensions of how employees are managed, and the strategic emphasis of the organization. This aligned closely with the stated hypothesis that PPM would influence participant stores’ culture through both strategy alignment and stakeholder engagement. This resulted in a move away from the hierarchical culture type elements of internal focus and control toward an external focus with flexibility and discretion.

According to Cameron and Quinn (2011) an increase in the adhocracy culture type means clarifying future vision, encourage change, celebrate risk-taking, and becoming more forward looking. As such, organizational leaders seeking to improve in these aspects should consider PPM as a key part of their strategic management process.

These directional effects provide leaders with a starting point for understanding the possible effect implementing PPM will have on their organization. While the larger movements in adhocracy and market culture show a shift toward flexibility and growth, within the culture of an organization, the smaller increase in clan culture suggests a shift toward a more team-focused culture. While the specific cultural aspects in any given organization may vary, the holistic approach of PPM and its benefits of aligning strategy and engaging stakeholders, gives project portfolio managers general directional insight.
into the effect PPM will have on the culture of their organization, as well as the benefits and challenges implementing and executing PPM may have.

**Resource Allocation**

The third application for business practice deals with how resources are allocated effectively within an organization. Financial performance is an important aspect of any business, and managing payroll performance by allocating and monitoring human resources is one of the main functions of organizational leaders. A key component within this study beyond understanding the impact PPM had on organizational culture was whether or not the PPM process that was implemented helped the stores more effectively manage their human resources (e.g. payroll). Though $H5$ was rejected due to not all stores making their payroll budget for each of the three months, the benefits of the PPM process of structuring, allocating resources, steering, and learning are still valuable considerations for organizations that do not currently have strategic processes in place for allocating human resources. Porter (1985) points out that operational effectiveness, though important, should not be considered strategy. Likewise, resource allocation is one of the most conflict-ridden practices within an organization (Arvidsson, 2009). As such, a key aspect firms should consider, beyond just meeting a payroll budget, is whether or not human resources are being allocated in a way that achieves the strategic objectives of the organization, and whether or not the strategic process for allocating resources reduces conflict within the organization. This study suggests that PPM is an effective tool for both.
Implications for a Biblical Framework

Finally, these study results provide additional insight into two key biblical elements highlighted earlier in this paper: stewardship and the intrinsic value of employees. Though hypothesis 5 could not be confirmed with regards to the efficient use of resources due to not all participating stores making their payroll budget, the concept of being a good steward of resources entrusted by God goes beyond just their efficient use. The study results showed reduction in market culture score, which means a reduction in the drive to achieve numbers at all costs (Cameron & Quinn, 2011). Likewise the study results also showed an accompanying increase in the clan culture score, which leads to higher employee engagement and job satisfaction (2011). This emphasizes the holistic benefits of the PPM process by considering the entire business as a whole when making strategic decisions. Karns (2011) suggests a stewardship model for business changes the perspective on profit from an end goal, to a means to serve. Just as God entrusted Adam as the steward of all creation (Genesis 1:29), or as Peter calls Christians “the stewards of God’s grace” (1 Peter 4:10), a stewardship model puts others first, and makes it possible for goals to be congruent across stakeholder groups (Davis, Schoorman, & Donaldson, 1997). Though agency theory has historically incentives within an organization have been based on divergent goals among stakeholders, there is an increasing interest in the stewardship model for business (Kuppelwieser, 2011). Though much of this interest is based on the idea that organizational leaders are stewards of the resources of the organization, a Biblical framework for business takes this idea one step further and acknowledge that whether in business or in life, we are stewards of God’s resources.
Within stewardship, the flourishing of stakeholders, specifically employees, is a key component. Beyond the value an employee brings to the organization through their time and their talents, each employee has an intrinsic value as an individual created in God’s image (Genesis 1:26). The stakeholder engagement role of PPM provided support for this intrinsic value in two areas. First, the reduction in market culture reduces the focus of the organization on achieving numbers at all costs, and leads to a culture that adapts to human needs, and not just market needs. Just as Paul encouraged treating employees fairly when he spoke about masters treating their employees fairly in Colossians 4:1, this shift increases the emphasis on how business practice affects the employees and the team, not just the bottom line. Second, the increase in adhocracy culture emphasizes growth and development across employees and the organization (Cameron and Quinn, 2011). Additionally the growth and development of employees leads to creative and meaningful work. Van Duzer (2010) suggests one of God’s main purposes for business is to provide meaningful work. This goes beyond businesses simply providing a reasonable wage, and emphasizes that organizations should seek to engage, develop and grow their employees.

With both of these elements, stewardship and the intrinsic value of employees, it is important to consider the whole picture when it comes to the strategy and culture of an organization. As such, PPM provides a process for not only the stewardship of organizational resources, but also a holistic approach to strategy making where all aspects of the business are considered in order help the organization and its stakeholders flourish and achieve God’s purpose for business.
Recommendations for Action

Strategy, culture and performance are all interconnected elements in an organization’s fight for competitive advantage (Vele, 2013). The use of PPM is becoming more prevalent due to its benefits of increased ROI, and improved project success rates (PMI 2013a). However, this paper looked at PPM as a holistic framework for strategic management, and how it affected organizational culture. The two key findings of this paper, the increase in adhocracy culture and decrease in market culture, lead to three recommendations for action organizational leaders in charge of strategy making, project portfolio management, and/or project oversight.

First, due to a lack of literature connecting PPM and organizational culture, this study sought to establish hypothesis based on the relevant literature along the common themes of strategy alignment and stakeholder engagement within the PPM and organizational culture literature. As such, the hypotheses were developed prior to the initial pre-test OCAI survey in order to understand the impact PPM had on organizational culture. However, each organization’s culture is unique, resulting in different starting points within the cultural dimensions, different ideal cultural states that drive competitive advantage, and possible different measurements of organizational culture all together. Much of the literature on PPM focuses on the business benefits; this study suggests incorporating PPM does have an impact on the culture of an organization. Therefore, when considering any change in business practice, such as PPM, organizational leaders should: a) seek a clear understanding of the firm’s organizational culture types, and their dominant, moderate, and weak cultures in order to understand where their current culture
lies in regards to their ideal organization culture, b) consider the impact incorporating PPM will have on the culture of the organization, and c) determine the possible implications of the cultural impact as it relates to the overall strategy and goals of the organization. Each of these steps requires a method for assessing organizational culture.

Second, firms without a formal process for strategy making should consider incorporating PPM not only for the benefits found in previous studies of improved ROI and project success (PMI, 2013a), but also for its holistic approach to strategic decision making. This paper suggests PPM’s approach to strategy management provides a balancing to the culture types of the organization. This was identified by the decrease in the dominant market culture, and an increase in the weak adhocracy culture. Though it should be noted that a dominant culture type is considered important for the overall culture as it shows a clear culture across the organization (Cameron & Quinn, 2011). However, if one culture type is too dominant, it can expose weaknesses in the opposite or weaker culture types. As such, these findings should: a) create awareness among organizational leaders to possible cultural imbalances due to dominant and weak culture types, b) provide a strategic approach, such as PPM, that considers all aspects of the business in order to minimize the negative impact of a too weak or too dominant culture types, and c) consider the possible negative implications of a dominant/weak culture relationship, and its effect on the stakeholders of the organization. In the case of this study, the reduction in market culture suggests a reduced emphasis in driving for numbers at all costs, while an increase in the adhocracy culture type suggests an environment that is more open to suggestions from both employees and customers. Though these findings
suggest a benefit to some balancing within the cultural dimensions within an
organization, organizational leaders should note that perfect balance is not the goal within
the CVF, but the offsetting of a weak culture type can prevent the culture from becoming
inefficient.

Finally, the last recommendation for action considers the increase in adhocracy
culture as being affected by both of the common themes of strategy alignment and
stakeholder engagement. The increase in adhocracy culture was driven by large increases
in the survey responses for the employee and strategic emphasis content dimensions. The
adhocracy culture type is concerned with the organization being flexible and externally
focused. The increase in adhocracy culture type moves in the opposite direction of the
hierarchical culture type, which is focused internally and on stability and control. In a
business environment facing constant disruption, firms that are able to adapt to the
changing environment are more likely to maintain a competitive advantage, firms that do
not face destruction (Singh, 2012). Therefore, organizational leaders seeking to
establish, or move, their organization toward an adhocracy culture of flexibility and
external focus could consider PPM as a viable option for strategic management. PPM
may look slightly different from one organization to the next, but a good starting point for
organizational leaders considering PPM is Jonas’ (2010) four-step PPM process utilized
within this study of portfolio structuring, resource management, portfolio steering, and
organizational learning, with the structure and formality determined by the management
team.
Recommendations for Further Study

Due to a lack of research looking at the relationship between PPM and organizational culture, one of the stated goals of this study was to understand the impact PPM has on organizational culture. While this paper provides insight into the possible effects PPM has on organizational culture it is constrained by several limiting factors, which open up opportunities for future research. First, this study looked at a limited participant group with a large retail organization. Further expansion within an organization to include multiple employee levels would provide additional insight as to the affect PPM has on the culture of the organization at multiple levels. Second, this study was limited to one type of organization, with each of the participant stores as sub-organizations. While this provided a similar backdrop for comparing pre and post-test organizational culture results, it does not take into consideration the how PPM might affect the culture of different types of organizations (e.g. banking, entertainment, manufacturing), or different organizations all together (e.g. General Electric, Disney, or J.P. Morgan Chase). Further research into the potential impact PPM has within different organizations would provide broader insight as to the effect PPM has on organizational culture. Finally, this study utilized the OCAI survey and the CVF in order to measure organizational culture. While the OCAI and CVF are well-established tools for measuring organizational culture, the use of other established tools, or specifically developed organizational culture surveys might also provide a different perspective to the how the use of PPM affects the culture of an organization.
Reflections

Throughout the research process there were several personal reflections worth noting. First, the scope of this study required the willingness of the participants to take on a fairly invasive process by implementing the PPM process into their personal leadership. Thus having pre-existing relationships with the participants allowed for a certain level of trust between the participants and myself, which made the experiment possible. However, it is possible that those pre-existing relationship could result in biases both for the participants and myself. Second, one of the culture movements I thought would be clear was a decrease in the hierarchical culture type. Much of my basis for thinking along those lines was the predominance of literature on the CVF and the negative aspects of a dominant hierarchical culture. The fact that the hypothesis that expected a decrease in the hierarchical culture type was rejected forced me to think about hierarchical culture beyond the negative connotations. The structure, stability and control that a hierarchical culture provides are important elements in any organization, and shouldn’t be marginalized as being wholly negative. Third, through my research I formed my own personal ideal culture type within the CVF, which conflicted with some of the participant responses. This forced me to consider the individual values each person brings to an organization, and though they may differ from mine, it does not mean they are any less important.

Finally, the biblical principles of stewardship and the intrinsic value of employees brought a deeper understanding of the importance of considering all aspects of the organization in the strategy making process within a holistic framework like PPM, and
achieving God’s purpose for business. Through stewardship, the efficient use of resources allows for the generation of profit. Though profit is not God’s sole purpose for business, profit is an important part of business because it allows a business to enable the flourishing of all those who come in contact with it. Likewise, the reduction in market culture showed a shift toward a culture that considers human needs, along with market needs.

**Summary and Study Conclusions**

In summary, this paper sought to understand the affect PPM has on organizational culture through the use of an experiment that incorporated the PPM process with seven participants, and utilized the OCAI survey to measure organizational culture through pre-test and post-test responses.

The study proposed five hypotheses summarized in Table: Hypothesis 1 expected a decrease in the hierarchical score. The survey results showed a slight increase of 0.07, however the results were not statistically significant, and therefore rejected.

Hypothesis 2 expected an increase in market culture through its link to strategy alignment. The survey results moved in the opposite direction with the market culture decreasing by -3.91. Though the results moved in the opposite direction of the hypothesis, they were shown to be statistically significant. The market culture type was the dominant culture type for both the pre-test and post-test surveys, as the decrease in market culture showed a balancing across the CVF, and a corresponding increase in the adhocracy culture type. This decrease highlights the consideration of human needs and
not just the market, as well as a move away from driving for numbers at all costs (Cameron & Quinn, 2011).

Hypothesis 3 proposed an increase in clan culture through its connection to stakeholder engagement. While the survey results yielded an increase of +1.16, the results were rejected due to a lack of statistical significance.

Hypothesis 4 focused on the adhocracy culture type, and expected an increase from the responses to the pre-test to the post-test survey. $H4$ saw the largest increase across all four cultural types, and the results were shown to be statistically significant, confirming $H4$.

Finally hypothesis 5 considered the impact PPM had on the efficient use of resources as measured by the participant stores making their payroll budget for each of the three months of the study. The results were mixed with only three participants making their payroll budget for all three months and therefore $H5$ was rejected.

Taking into consideration the goal of this paper to 1) understand the affect PPM has on organizational culture, and 2) fill a gap in the literature connecting PPM and organizational culture, two key conclusions can be drawn. First, though not all of the hypotheses were confirmed, the movement in adhocracy culture (increase) and market culture (decrease) showed statistically significant changes to the organizational culture of the participant stores. Second, though it is difficult to definitively say this change was driven primarily by the implementation of the PPM process, however, it provides one of the first quantitative studies to look at the specific impact PPM has on organizational
culture, thus providing a basis for future studies to broaden and expand this area of research.
References


Hartnell, C., Ou, A., & Kinicki, A. (2011). Organizational culture and organizational effectiveness: A meta-analytic investigation of the competing values


Appendix A: The Organizational Culture Assessment Instrument (OCAI)

**The Competing Values Culture Assessment**

These six questions ask you to identify the way you experience your organization right now, and, separately, the way you think it should be in the future if it is to achieve its highest aspirations. In the survey, “the organization” refers to the organization managed by your boss (or the organization in which you manage).

Please rate each of the statements by dividing 100 points between alternatives A, B, C, and D depending on how similar the description is to your firm. (100 would indicate very similar and 0 would indicate not at all similar). The total points for each question must equal 100. The assessment uses this method to better demonstrate how trade-offs always exist in organizations and resources—including time and attention—are never unconstrained. That is, the response scale demonstrates the inherent tradeoffs required in any approach to culture change.

**First**, rate how you perceive the organization to be at the present time in the NOW column. **Second**, rate the organization again in the FUTURE column depending on how you think your organization must be if it is to accomplish its highest objectives and achieve spectacular success in three to five years.

You may divide the 100 points in any way among the four alternatives in each question. Some alternatives may get zero points, for example. Remember that the total must equal 100.

### 1. DOMINANT CHARACTERISTICS

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<thead>
<tr>
<th></th>
<th>NOW</th>
<th>FUTURE</th>
</tr>
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<td>A. The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.</td>
<td>A ___</td>
<td>A ___</td>
</tr>
<tr>
<td>B. The organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.</td>
<td>B ___</td>
<td>B ___</td>
</tr>
<tr>
<td>C. The organization is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.</td>
<td>C ___</td>
<td>C ___</td>
</tr>
<tr>
<td>D. The organization is a very controlled and structured place. Formal procedures generally govern what people do.</td>
<td>D ___</td>
<td>D ___</td>
</tr>
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</table>

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2. ORGANIZATIONAL LEADERSHIP

A. The leadership in the organization is generally considered to exemplify mentoring, facilitating, or nurturing.
B. The leadership in the organization is generally considered to exemplify entrepreneurship, innovating, or risk taking.
C. The leadership in the organization is generally considered to exemplify an aggressive, results-oriented, no-nonsense focus.
D. The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.

3. MANAGEMENT OF EMPLOYEES

A. The management style in the organization is characterized by teamwork, consensus, and participation.
B. The management style in the organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.
C. The management style in the organization is characterized by hard-driving competitiveness, high demands, and achievement.
D. The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.
4. ORGANIZATIONAL GLUE

A. The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.

B. The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.

C. The glue that holds the organization together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.

D. The glue that holds the organization together is formal rules and policies. Maintaining a smooth-running organization is important.

Total 100 100

NOW FUTURE

A _____ A _____

B _____ B _____

C _____ C _____

D _____ D _____

5. STRATEGIC EMPHASES

A. The organization emphasizes human development. High trust, openness, and participation persists.

B. The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.

C. The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.

D. The organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.

Total 100 100

NOW FUTURE

A _____ A _____

B _____ B _____

C _____ C _____

D _____ D _____

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6. CRITERIA OF SUCCESS

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<td>B. The organization defines success on the basis of having the most unique or the newest products. It is a product leader and innovator.</td>
<td>B ____</td>
<td>B ____</td>
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<tr>
<td>C. The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.</td>
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<td>C ____</td>
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<tr>
<td>D. The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low cost production are critical.</td>
<td>D ____</td>
<td>D ____</td>
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Total 100 100

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Appendix B: PPM process for Human Resource Allocation

MONTH: ____________

Phase 1: Portfolio Structuring

- **Task:** Identify key strategic objectives for upcoming month.
  - Transition workload
  - Trailer forecast
  - Rollouts
  - Training needs
  - Store specific focuses
- **When:** Monthly, prior to payroll being available for upcoming month.
- **Who:** GM and Asst. Mgr team.
- **Time commitment:** 30 minutes

NOTES:

Phase 2: Resource Management

- **Task:** Plan payroll allocation for the upcoming month utilizing human resource allocation tool.
  - Incorporate Asst. Mgr team and key stakeholders into resource allocation including but not limited to: department manager, HR team, schedule writers, etc.
  - Review allocation plan at the weekly managers meeting to answer questions, share why's, clarify strategy, and make adjustments based on feedback and insights from the group.
- **When:** Monthly, 2 weeks prior to the upcoming month when payroll plan is available.
- **Who:** GM, Asst. Mgr Team, Key stakeholders.
- **Time commitment:** 30 minutes

NOTES:

Phase 3: Portfolio Steering

- **Task:** Monitor payroll allocation plan.
  - Review human resource allocation tool specifically looking at payroll plan vs. actual allocation.
  - If actual allocations are not in line with plan follow up as needed to adjust actual allocation to plan, or approve the change.
  - Identify any gaps that need to be addressed (e.g. if a workcenter is not using all of their hours, they could have hiring needs).
  - Make adjustments to overall monthly plan based on weekly payroll allocation performance (e.g. if week 1 is allocated over by 100 hours,
either plan to trim back those hours already scheduled, or adjust subsequent weeks payroll plan to compensate).

- **When:** Weekly (Monday or Tuesday)
- **Who:** GM and/or Asst. Mgr for HR
- **Time commitment:** 15 mins

NOTES:
## Appendix C: Human Resource Allocation Tool

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**Notes Wk 1**

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- **Training:**
- **Workload Notes:**

**Notes Wk 2**

- **Transitions:**
- **Training:**
- **Workload Notes:**

**Notes Wk 3**

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- **Training:**
- **Workload Notes:**

**Notes Wk 4**

- **Transitions:**
- **Training:**
- **Workload Notes:**
Appendix D: Permission to Publish OCAI

Re: Competing Values Frameworks

Meredith Smith <meredithbusiness@gmail.com>

Reply all
Tue 6/13, 10:53 AM
Wiersma, Brian
Inbox
You replied on 6/13/2017 4:48 PM.

Thanks Brian. It is okay to publish the instrument in your appendix along with the copyright information.

Congratulations.

Meredith Smith
Assistant to Kim Cameron