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A QUALITATIVE STUDY ON CERTIFIED FEMALE PROJECT MANAGERS AND
PERCEIVED VALUE OF THE PROJECT MANAGEMENT PROFESSIONAL
CERTIFICATION

By
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A DISSERTATION IN PRACTICE

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Abstract

The purpose of this phenomenological qualitative study was to explore the influence of the Project Management Professional (PMP) certification on the careers of PMP-certified female information technology project managers who are current members in a mid-Atlantic Project Management Institute chapter in the United States. The aim of this study was to determine the influence the Project Management Professional (PMP) project certification from the Project Management Institute had on the certified female project managers working in the information technology field. To achieve this, the data were collected through structured interviews of 6 project managers from the local mid-Atlantic Project Management Institute chapter. Three main themes emerged from the data: roles of the project manager, communication as strategy, project management career. From these three main themes, there were subcategories identified. These categories led to the recommendation for the Project Management Institute to refocus on interpersonal skills and move them from the appendix to a formal chapter. The recommended skills to focus on are: responsive leadership, fellowship building, safety net, peacekeeper, success coach, and communication.

Keywords: Project manager, PMP, Project Management Institute, PMI, interpersonal skills

Dedication

This dissertation is dedicated to my two children, Izzy and Sebastian. Let this entire process help you understand that learning never stops. Thanks for cheering me on.

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I am grateful to plenty of people who helped me along the journey to completion of this dissertation. My family has had a front row seat to the process and they have exhibited cheerleading and patience. I hope my example of continuing formal education will help my children to understand the importance of lifelong learning. My husband is a superstar to support me through yet another degree!

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Table of Contents

	Page
Abstract	iii
Dedication	iv
Acknowledgments	v
Table of Contents	vi
List of Tables	ix
List of Figures	x
CHAPTER ONE: INTRODUCTION.....	1
Introduction and Background	1
Definition of Project Management and Project Manager	1
History and Current State of PMI	2
Who is a Project Manager?	2
Project Manager Soft Skills	3
Focus on Female PMP Project Managers	4
Statement of the Problem.....	5
Purpose of the Study	5
Research Questions	5
Aim of the Study.....	6
Methodology Overview	7
Limitations, Delimitations, and Personal Biases	7
Limitations	7
Delimitations.....	8

Personal Biases	8
Leader's Role and Responsibility in Relation to the Problem	9
Significance of the Study	11
Summary	12
CHAPTER TWO: LITERATURE REVIEW	13
Introduction	13
General Project Manager Skills	14
Interpersonal Project Manager Skills	16
Self-Reflection	16
Relation to Others	19
Transactional Relationships	21
Information Technology Project Management	22
The Role of Gender	26
Project Management Practice Setting	30
Shared or Authentic Leadership in Project Management	30
Reflections of the Researcher	32
Summary	33
CHAPTER THREE: METHODOLOGY	35
Purpose of the Study	35
Aim of the Study	35
Proposed Methodology	35
Overview of the Planned Data Collection	36
Instruments for Data Collection	36

Gathering Participants.....	37
Planned Procedures.....	38
October 2015.....	38
November 2015.....	38
December 2015.....	38
January 2016.....	39
March 2016.....	39
Timeline for the Study.....	39
October 2015.....	39
November 2015.....	39
December 2015.....	39
January 2016 and February 2016.....	40
March 2016.....	40
April 2016.....	40
Data Analysis Plan.....	40
Leadership Roles/Implications Related to Data Collection.....	40
Ethical Considerations.....	41
Summary.....	42
CHAPTER FOUR: FINDINGS.....	43
Introduction.....	43
Review of the Methodology.....	45
Data Demographics.....	47
Data Analysis.....	48

Results.....	48
Themes.....	49
Category One: Roles of Project Manager	50
Responsive leader	50
Fellowship builder	51
Safety net provider	52
Peacekeeper.....	52
Success coach.....	53
Certified expert	54
Category Two: Communication as Strategy	55
Communication is control.....	55
Communication is variety	56
Communication motivates	57
Decision making communication	58
Category Three: Project Management Career.....	58
Career evolution.....	59
Employer support and self-motivation.....	59
Variety of professional positions post-PMP certification.....	60
Influence of Project Management Professional (PMP) certification	61
Project Management Professional (PMP) requirement.....	62
Additions to the Project Management Book of Knowledge's (PMBOK) interpersonal skills list	63
Summary.....	63

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS	65
Introduction.....	65
Purpose of the Study	66
Aim of the Study.....	66
Proposed Solution	66
Support for the Solution.....	67
Human interaction oriented to others.....	68
Promotion of nurturing kindness	69
Creative project information sharing	70
Energetic project planning	71
Cultivate lifelong learning	72
Passionate toward profession.....	73
Stakeholders Related to the Solution	74
Potential Barriers and Obstacles to Proposed Solution.....	75
Financial/Budget Issues Related to Proposed Solution	76
Implementation of the Proposed Solution.....	76
Evaluation and Timeline for Implementation and Assessment	77
Implications.....	78
Practical Implications.....	78
Implications for Future Research.....	78
Implications for Leadership Theory and Practice	79
Summary of the Study	80
References.....	84

Appendices.....88

List of Tables

	Page
Table 1. Section One Questions Research Participant Demographics	47

List of Figures

	Page
Figure 1. Communication Media	57
Figure 2. Section Two Question: Current and Former Professional Positions	61

CHAPTER ONE: INTRODUCTION

Introduction and Background

Project teams are comprised of men and women who share power and authority with stakeholders, sponsors, and advocates (Info-Tech, 2011). Project managers write documents such as charters, scope statements, and schedules as a baseline of duties. Project managers educate themselves about their core duties by learning from others or enrolling in training courses. However, to become a respected and knowledgeable professional, some project managers choose to earn the Project Management Professional (PMP) certification from the Project Management Institute (PMI). PMI is a “not-for-profit membership association for the project management profession” with 700,000 people including members, certified project managers, and volunteers around the world (PMI, 2015e).

Definition of Project Management and Project Manager

Every day, companies around the globe rely on human capital to complete work tasks. To fully understand the role of the project manager, the definition of a project was required. As defined by PMI (2013b), a project is a “temporary endeavor undertaken to create a unique product, service, or result” (p. 3). Projects have had a defined beginning and ending, including five process groups, which are initiating, planning, executing, monitoring and controlling, and closing (pp. 3, 5). Management assigned the project manager role to lead the project team designated as responsible for completing the project’s tasks (p. 16). The three main competency areas of the project manager were “knowledge, performance, and personal” (p. 17). These competency areas related to people skills required by project managers (p. 17). The competency areas work alongside

knowledge areas, which were the main subjects tested on certification exams such as the Project Management Professional (PMP) exam. Knowledge areas included: integration, cost, human resources, stakeholder management, scope, quality, communications, time, procurement, and risk management (Info-Tech Research, 2011).

History and Current State of PMI

The Project Management Institute, commonly referred to by the acronym PMI, is the world's leading not-for-profit professional membership association for the project management profession (PMI, 2015e). PMI was founded in 1969 (2015a), and it currently has 2.9 million international professionals. According to PMI's 2013 Annual Report, about 51 million people worldwide are taking part in project management (p. 1). There are networks of members, credential holders, volunteers, and webinar attendees who comprise the primary stakeholders (PMI, 2013a, p. 1). There are over 400,000 PMI members in over 180 countries and over 600,000 PMI certification holders (2013a, p. 2).

Who is a Project Manager?

There were several descriptors used when describing a project manager, including "change agents," who need "people skills," and a "broad and flexible toolkit of techniques" (PMI, 2015d). The project manager was responsible for managing stakeholder expectations, controlling project scope, and establishing project objectives (Info-Tech Research, 2011). These processes were meant to establish success criteria and then management of the project plan occurs throughout the duration while documenting change and handling conflicts (Info-Tech Research, 2011). The most important skill a project manager obtained and cultivated throughout his or her career path was communication (Info-Tech Research, 2011). Growing out of the important skill of

communication, there were two other skills that are important to develop, which were leadership and the ability to influence people (Info-Tech Research, 2011).

In reference to gender statistics, the 2013 board of directors is listed in the annual report, and out of 16 members, six were female (p. 7). In addition, the PMI executive management group had nine members with two females serving (PMI, 2013a, p. 12), though PMI currently excludes gender from its discussion of standard demographic metrics (PMI, 2015d). There was a need, however, to study project managers with a focus on the Project Management Professional certification through PMI and gender. Though PMI had provided general statistics about history, membership, and current certification totals, the statistics were not broken down into further detailed demographics such as location, gender, age, or profession.

Project Manager Soft Skills

The Project Management Professional (PMP) certification test was based on the book, *A Guide to the Project Management Body of Knowledge*, or commonly referred to as the PMBOK Guide. The PMBOK was currently available in its fifth version, published in 2013 (PMI, 2013b). In this guide, the majority of the chapters were dedicated to detailed description about the project management processes (PMI, 2013b). There were a few chapters dedicated to general knowledge about projects, portfolios of projects, and the organizational influences upon a project's life cycle (PMI, 2013b). There were three appendices and one appendix dedicated to interpersonal skills (PMI, 2013b, p. 513), which include:

- Leadership
- Team Building

- Motivation
- Communication
- Influencing
- Decision making
- Political and cultural awareness
- Negotiation
- Trust building
- Conflict management
- Coaching

Though other interpersonal skills may be used by a project manager, these were the skills identified by PMI as assisting in “effectively managing the project” (PMI, 2013b, p. 513). By incorporating questions about these interpersonal skills, the researcher provided a focus area from within the PMBOK. The research will determine if the certification and interpersonal skill development are potentially influential and provide value to the career path of the female project manager.

Focus on Female PMP Project Managers

I proposed to study a select subset of the certified Project Management Professional group consisting of female project managers located in the United States who work in the information technology profession as certified PMPs. My goal was to provide an evidence-based solution on the perceived influence of the PMP certification upon female project managers’ careers by performing face-to-face interviews that will retrieve rich data points to analyze and code. By providing this research to the project management profession, I hope to begin a conversation about the perceived value of the

PMP certification upon a specific group of certified females working in the information technology profession. I wanted to discover whether there is a positive, negative, or neutral correlation to earning a PMP certification for this group.

Statement of the Problem

The research problem that was studied is the perceived influence of the earned certification of the Project Management Professional (PMP) on the career of the female information technology project manager. Based on the metrics and literature available on the Project Management Institute's (2015) web site, data points on gender and specific career path development were not available. Though previous studies have contained elements of these two metrics, there was not a combination of the two into one study. Therefore, the proposed research study was conducted via qualitative face-to-face interviews of only female project managers who are both certified as a PMP and work in the information technology profession.

Purpose of the Study

The purpose of this phenomenological qualitative study was to explore the influence of the Project Management Professional (PMP) certification on the careers of PMP-certified female information technology project managers who are current members in the Project Management Institute chapter located in the mid-Atlantic region of the United States of America. This study focused on the interpersonal skills from the PMP certification.

Research Questions

The study was guided by the following research question: What is the relationship between the attainment of the Project Management Professional (PMP) certification from

the Project Management Institute (PMI) and a perceived benefit to career development for female information technology project managers? Specifically, data collection will focus on asking questions based on Appendix X3 from the text *A Guide to the Project Management Body of Knowledge* and this appendix is focused on interpersonal skills needed for a project manager to manage effectively a project (PMI, 2013b, p. 513). The subquestions were:

Research question #1: In relating to others, did the Project Management Professional (PMP) certification affect the ways in which the participant utilizes the following interpersonal skills in relating to others: leadership, team building, influencing, and trust building?

Research question #2: In relating to self, did the Project Management Professional (PMP) certification affect the ways in which the participant utilizes the following interpersonal skills in relating to self: motivation, communication, decision making, and political and cultural awareness?

Research question #3: In understanding human resources' interactions, how did the Project Management Professional (PMP) certification affect the ways in which the participant incorporates the following skills into her project management style: negotiation, conflict management, and coaching?

Aim of the Study

The aim of this dissertation in practice was to determine the influence the Project Management Professional (PMP) project certification from the Project Management Institute based on evidence gathered from the qualitative study of Project Management

Professional certified female project managers working in the information technology field.

Methodology Overview

The proposed methodology was a phenomenological qualitative study. The data to inform the final product was randomly collected by selecting from three to ten people to conduct individual face-to-face interviews (Creswell, 2014, p. 189). The individuals must be female project managers working in the information technology field who all hold the Project Management Institute's certification as Project Management Professionals or PMPs. Specifically, these project managers were members of a chapter of the Project Management Institute. The goal of data collection was to determine the perceived value of the PMP on these project managers' careers. The methodology is phenomenological, where "significant statements, the general of meaning units" created an "essence description" (Creswell, 2014, p. 196). It was an appropriate type of data collection because the stories of the individual project managers were shared to determine the participants' perceived influence of their project management certification upon their careers.

Limitations, Delimitations, and Personal Biases

Limitations

This study was limited to female project managers who work in the information technology profession and have earned the Project Management Professional certification from the Project Management Institute to which I belong.

Delimitations

This study's delimitation was to female project managers working in the information technology profession who were current members of the local Project Management Institute chapter in Baltimore, Maryland. The total membership was vast enough in the region, where I can find participants with whom I did not have a prior relationship.

Personal Biases

I am currently serving in my sixth year as a female project manager working in the information technology profession with a certification of Project Management Professional, or PMP, from the Project Management Institute. I have been a member of the Project Management Institute's local chapter for five years as of April 2010. I worked in several technically-focused jobs before obtaining the project manager position within an information technology department. My perception was that females are more challenged to prove themselves in the information technology profession, and this challenge often seems to pass over to the project manager role. I wanted to know whether or not the Project Management Professional certification influences the careers of female project managers specifically for those working in the information technology profession. I am a current volunteer with the Baltimore chapter of the Project Management Institute and I had access to volunteers who were able to support and help me complete this study. By being enrolled in this degree program, I had access to academic journal articles that other female information technology project managers may not have access to read. I also worked closely with one other female information technology project manager, so I have access to her personal stories. The background and skills that may influence how I

thought about this problem and designed a final product include being a female PMP certified project manager working in the information technology field. While I enter into this research study as a potential participant, I must be able to leave myself out of the participant group and enter into the research only as a lead researcher.

I will control the bias by journaling with reflexive practices. Before the interviews, I journaled with anticipatory reflection. After the interviews, I journaled about my experience and allow my personal biases and feelings be documented. These two techniques will ensure that I am aware of my biases going into and coming out of the interviews. If applicable, I utilized bracketing as another level of assurance that my personal bias is recognized and checked during the research and writing processes. In addition, I provided comments about my own background, as suggested by Creswell (2014), to include my “gender, culture, history, and socioeconomic origin” (p. 202).

Leader’s Role and Responsibility in Relation to the Problem

Literature surrounding the project management profession discussed several types of skills needed to be successful. El-Sabaa (2001) noted six specific skills for project managers: communication, organizational, team building, leadership, coping, and technological (p. 6). The project manager needed to know how to manage a project with technical skills and portray leadership qualities to the project team. Furthermore, Carbone and Gholston (2007) studied project management skill development by reviewing graduate and certification programs in three areas: knowledge, performance, and personal (p. 10). Carbone and Gholston (2007) determined that companies need to provide internal training to develop these skills, along with coordinated coaching and mentoring (p. 16). In focusing on specific behaviors that female project managers exhibit, Fisher (2011)

studied a variety of industries, including telecommunication, engineering, consulting, and banking to find behaviors such as “leading others,” “influencing others,” being authentic, managing conflict, and “cultural awareness” (p. 1000). Another study of female project managers found that women exhibit “transformational, democratic, and people-oriented leadership styles” (Maseko & Proches, 2013, p. 5663). In summary, the role of leadership was a common requirement to core job duties. Leadership was a skill often associated with project managers and has been evident in previous studies involving female project managers in the past.

When looking at leadership from a Jesuit perspective, Lowney (2003) reminded everyone that we were leading all the time, even if there is no formal recognition or expectation of leading (p. 15). In addition, Lowney (2003) stated that leadership comes from within, and it is “a way of living” that continuously evolves as a process (p. 15). These perspectives served to support the use of a qualitative study to focus on the internal workings of perception of an earned project management certification on a female project manager’s career. If leadership came from within and was an ongoing lifestyle, then it was important to understand the perception of the PMP certification upon a career, and more specifically, whether there was any correlation at all. Within the information technology profession, it was necessary to delve deeper into the ways the certification may or may not influence a career path. Covey (2004) stated that a basic leadership task is to “increase the standard of living and the quality of life for all stakeholders” (p. 218). These concepts may be difficult to measure, but were easy to write about in a life skills management textbook. However, it was important to note that the PMP certified project manager was held to a higher standard based on the ethical requirements provided by the

Project Management Institute (2015a). Ethical leadership was a requirement for certified project managers if they were certified by the Project Management Institute.

Significance of the Study

This problem needed to be studied for several reasons. First, it was a problem for which a dearth of substantial literature exists, specifically focused in this area. There were research articles about project managers, careers, gender, and information technology, but none were focused specifically on the perception of value of the Project Management Professional (PMP) certification from the Project Management Institute. Additionally, there was no previous study focusing on the members of the Baltimore, Maryland chapter of the Project Management Institute (PMI) in any of the categories of project management, career, perception of value to the PMP, or females working in the information technology profession. The study was significant in that it will study a subset of the project management profession, but by doing so, it will provide a starting point to continue to study the other PMI certifications. The study was interdisciplinary in nature because it is exploring a complex real-world problem that is included in my day-to-day employment. The goal was to answer the question of whether or not there is a perceived influence on career from the PMP certification. If it proved that there is a positive correlation, then that was useful in giving PMI a positive benchmark about its certification. If it proved there was a negative correlation, then it was useful in giving PMI feedback for review and reflection, as well as possible future action. If it proved there was no correlation, then it was useful for the researcher, participants, and PMI to understand that the topic was worthy, but the outcomes did not swing positive or negative. No matter the outcome, the study contributed to the greater good because there

is an interdisciplinary focus since project management crossed several professions and the study focused on project managers within the information technology field while the project management industry was growing to include other disciplines (PMI, 2015a). While writing the outcomes, reflective practices were utilized along with supporting leadership theories.

Summary

I intended to provide a qualitative analysis about the perceived value of the Project Management Professional certification for certified female project managers working in the information technology profession. This study was conducted through a series of in-depth face-to-face interviews with members of the Project Management Institute's Baltimore, Maryland chapter.

The dissertation combined the categories of project management certification, a focus on the female gender, and an analysis of the perception of value in being project management certified during employment in the information technology field. As a result, future female information technology project managers can be better equipped to make the decision to become certified as a project management professional.

CHAPTER TWO: LITERATURE REVIEW

Introduction

As stated by the Project Management Institute (2015d), the role of the project manager can be found in any industry or organization. The Project Management Institute (PMI) is the “world’s largest not-for-profit membership organization for the project management profession” and provided a summary of the needed project management skills (2015d). Because a project manager typically managed people who are working on projects, he or she must be comfortable with being a “change agent” and being “organized, passionate, and goal-oriented” (PMI, 2015d). To complete their work successfully, a project manager needed to pull from a variety of skills. There were suggested skills, including “people skills” and task management skills (PMI, 2015d). Even though tasks were the final, simple representation of an assignment to a team member, the assigning of those tasks was often the result of a project manager’s breakdown of the “complex, interdependent activities” that made those tasks manageable for the team to complete (PMI, 2015d). The project manager connected and completed project documentation, and the project manager was also usually held responsible and accountable to the project team and to the company’s management team (PMI, 2015d). The project manager’s career path has had a view to the future by learning from his or her projects at the end with lessons learned and by being engaged in constant professional development within the project management industry (PMI, 2015d).

Since the project manager, as a job position, can span several industries, it was important to note the focus of this literature review was rooted within the information technology profession. In addition to the focus on this professional industry, the literature

review focused further on the role of gender in project management. The literature review investigated the skills needed to perform as a project manager, detailed the skills needed to perform within the information technology profession, and discussed the role of gender amid the context of this profession.

General Project Manager Skills

Literature suggested a vast selection of skills that project managers were to cultivate as they learn more about the profession of project management. Research articles often listed several skills and sometimes chose to rank them by priority order, depending on responses from research participants. El-Sabaa (2001) studied the skills and career paths of an effective project manager in Egypt by asking open-ended questions to project managers and reviewing management literature (p. 1). El-Sabaa (2001) provided a list of six skills for the project manager to develop: communication, organization, team building, leadership, coping, and technological proficiency. These six skills are listed along with three organizational behavioral skills that need to be developed, which are human, conceptual, and technical (El-Sabaa, 2001, p. 1). Carbone and Gholston (2007) also studied project management skill development by counting the number of available graduate programs and project management certifications (p. 11). Carbone and Gholston (2007) contacted companies who provided professional development to project managers via job training and asked their research questions (p. 11). The authors studied training received by a practitioner and graduate student as a working professional (Carbone & Gholston, 2007, p. 11). Project managers should develop skills in three separate competency areas: knowledge, performance, and personal (Carbone & Gholston, 2007, p. 10).

Beyond the listing of skills, there were suggestions for how to continue to learn these skills within a project manager's professional development. Though PMI existed to assist in professional development via training and certification, as well as membership communities, there was a professional expectation that project management skills can be developed on the job (Carbone & Gholston, 2007, p. 10). Furthermore, El-Sabaa (2001) concluded that a project manager needs extensive cross-functional experience and must have a basic understanding of both the business processes and departments, as well as how they interrelate (p. 6). While performing project management duties at work, there was a need to enhance training (Carbone & Gholston, 2007, p. 10). The outcomes of the research determined a diverse supply of professional development in the form of an internal training program in coordination with mentoring and coaching relationships (Carbone & Gholston, 2007, p. 16). El-Sabaa's (2001) research supported this idea as well by stating that, to achieve a more flexible career path, project managers should acquire a variety of professional skills, accept change as a standard, and participate in promoting themselves at the work place (p. 6).

Though gender was not a specific focus of the previous literature, two studies discussed specific behaviors women project managers portray. An effective project manager brought important managerial and people skills to project teams (Fisher, 2011, p. 994). Fisher's study (2011) was limited to the telecommunication, engineering, consulting, and banking industries (p. 1000), and it was controlled for gender bias by choosing five male and five female project managers (p. 997). Interviews were conducted both in-person and through focus groups (p. 994). The six specific skills and "behaviours" of project managers involved "understanding behavioural characteristics,

leading others, influencing others, authentic behavior (or authentically based behavior), conflict management, and cultural awareness” (p. 1000). The conclusion of the study determined that “behaviours drive outcomes” (p. 1001). The second study, by Maseko and Proches (2013), discussed a survey of 15 female project managers from South Africa to determine their leadership styles (p. 5663). Women project managers exhibited “transformational, democratic, and people-oriented leadership styles” and identified barriers to entry as gender stereotypes, lacking in qualifications, fear of being unsuccessful, family responsibilities, and lacking in networking skills and time (p. 5663). The themes revealed that women focused on communication and flexed their leadership styles to fit the project team (p. 5667). A drawback to being a female project manager resulted from competition at the workplace and situations wherein women were not always supportive of each other, as well as lacking in emotional intelligence (p. 5667). In reference to barriers, women were not offered opportunities to participate in after-work networking because of family obligations. Additionally, they did not have the same level of advanced degrees and thus, had been prevented from promotions (p. 5667).

Interpersonal Project Manager Skills

The Project Management Professional (PMP) certification was based upon the text, *A Guide to the Project Management Body of Knowledge*, or PMBOK. This book contained an appendix focusing on interpersonal skills meant to help the project manager “in effectively managing the project” (PMI, 2013b, p. 513). The skills were categorized in the research questions based on how the project manager develops skills herself, relates to others, and reflects upon transactional relationships.

Self-Reflection

A project manager has to look inward at himself or herself to evaluate and to realize the needed self-skill development in four areas: motivation, communication, decision making, and political and cultural awareness. The PMBOK listed these skills among the important interpersonal skills to develop for project success (PMI, 2013b, p. 513). Verma (1996) discussed motivation in a project environment by creating a supportive environment that recognizes key motivational factors such as supporting job satisfaction, recognizing accomplishments, achievements, or growth, and providing financial compensation, if allowed (p. 55). When project team members are fulfilled in these specific ways, there was an increase of “quality results,” since there was an overarching feeling of satisfaction and happiness (Verma, 1996, p. 55). The more motivated a project team can become under the project manager’s leadership, the more potential there is for “cost savings, better quality, and higher team productivity, satisfaction and morale” (Verma, 1996, p. 56). Therefore, as a project manager honed motivational skill in himself or herself, the better the opportunity to develop project team members in honing their motivation.

Next, a project manager’s assessment of communication style was critically important to successful project delivery (Verma, 1996, p. 15). The project manager must assess how skilled he or she was at managing the project communications, including both formal and informal, and interacting with the wide variety of roles people hold in relation to the project (Verma, 1996, p. 15). At the minimum, a project manager must assess his or her skills for communicating for one or more of the following responses: understanding the meaning of others, being understood by others, gaining acceptance of an idea, or producing action or change (Verma, 1996, p. 16). Though this can be a

complex task, the first step in building a better communication plan for the project team was to assess one's communication style and strategy.

After evaluating one's motivational and communication strategies, the project manager must turn attention to how comfortable he or she was with decision making. According to Verma (1997), project managers worked through decision-making throughout all of the project phases (p. 172). However, the struggle the project manager has was in not being able to know all of the details about decision-making from all project team members during all project phases (Verma, 1997). Therefore, the project manager needed to work toward building consensus with decision-making by becoming comfortable making decisions by himself or herself, through soliciting decisions from a team member or by posing decisions to the project team by way of a vote (Verma, 1997, p. 173). Though there were pros and cons, depending on which type of decision making is selected, it was important to recognize the variety of ways decisions can be made at the project team level.

The final skill a project manager needed to develop in relation to self is in how political and cultural awareness were navigated. The PMBOK collated both political and cultural awareness into one category, and the same techniques addressed by Verma (1996) were useful. Verma (1996) stated that managing politics at the project team level demands "top management support, use of strategic instruments, build[ing] a team, and develop[ing] personal power" (p. 241). In addition to utilizing these strategies at the project level, there were also upper management politics to address by navigating management hierarchy, formally naming one project sponsor, formulating a committee, and engaging outside consultants or experts (Verma, 1996, p. 240). These methods can be

utilized with the understanding that the project manager wants to protect the team from the distraction of politics or cultural issues (Verma, 1996, p. 240). The navigation of politics or culture was supported by the development of motivation, communication, and decision making.

Relation to Others

The project manager must take the ways he or she related to self and project it outward in the way he or she related to others by developing skills in leadership, team building, influencing, and trust building. According to Verma (1996), there was no single definition of leadership, but a collective definition stated that it was a person in a group designated as the person who directed and coordinated work by utilizing the following traits: “flexibility, ambition, intelligence, decisiveness, consciousness of social environment, willingness to take responsibility, creativity, persistence, energy, tolerance for stress” (p. 212). The traits that team members, functional managers, and senior management desired in a project manager were: having vision, being technically proficient, constantly self-improving, caring for the project team, encouraging team work, being positive, and being responsible (Verma, 1996, p. 213). This list was not exhaustive, but it encompassed the main areas of leaders and the need for development to ensure successful project management.

Team building was an important skill for a project manager to ensure a successful project delivery. Verma (1997) stated that team building is the process of “planned and deliberate encouragement” of specific work styles meant to “reduce difficulties or obstacles” that can prevent optimal team performance (p. 114). Furthermore, the outcomes of team building impacted the project team positively by supporting open

communication, building trust, creating decision-making, and effective project control (Verma, 1997, p. 116). There was no single way to begin team building, but it was imperative that the project manager interact with the project team with deliberate and sustainable processes meant to build teams (Verma, 1997).

After the team was built, there was a need to incorporate influencing traits. This was an important skill to develop, since project managers often managed a project “without much formal authority” over their project team (Verma, 1996, p. 231). Still, a need existed to gain project stakeholders’ support without “exercising command authority” (Verma, 1996, p. 231). To do this effectively, a project manager had to engage with his or her project team and wider group of stakeholders by engaging with leadership traits, such as competency and charisma, to effect changes (Verma, 1996). As the project progresses, there was a varying level for needing to engage in influencing and it must have been used carefully to not be confused with over power (Verma, 1996).

Trust building was an integral piece of project management, and it existed by engaging with others. Covey (2004) stated that trust is the “highest form of human motivation” (p. 178). Though Covey (2004) recognized that trust building takes “time and patience,” its reward is worth the time investment (p. 178). By building trust, it was possible that both individuals or groups engaged in the interaction will benefit by completing more work in less time (Covey, 2004, p. 178). Trust interacts with delegation, and this was the art of what the project manager must utilize for successful project completion (Covey, 2004, p. 178). Without trustful delegation, the project could not possibly succeed, since the project team would not be able to encompass ownership of their behavior and their tasks (Covey, 2004). Though trust was developed over time, it

was worthwhile, since it brought out “commitment to agreed upon results” (Covey, 2004, p. 178). Trust building was a worthwhile endeavor and should not be overlooked by the project manager.

Transactional Relationships

A project manager created a unique style of project management cultivated by previous experiences. The three areas of project management style necessary to develop, due to the inevitabilities of working with human resources on the project team, were: negotiation, conflict management, and coaching. These skills were referenced in the interpersonal skill appendix from *The Guide to the Project Management Book of Knowledge* (PMBOK) (PMI, 2013b). Negotiation was an important skill to have for working through conflict and utilizing coaching (PMI, 2012b). As defined by PMI, negotiation was a strategy of working with groups with either similar or different interests with the goal of agreement (PMI, 2013b, p. 515). Covey (2004) discussed negotiation as a desire to move both parties to a “Win/Win” situation, where five elements exist: desired results are shared and agreed upon, guidelines were defined, resources are available to support the outcome, accountability was assigned and consequences of both positive and negative kinds were revealed (pp. 223, 224).

Negotiation skills were important because they came into play when managing a team through conflict. Flannes and Levin (2005) stated that it is inevitable and pervasive (p. 85). Conflict was unavoidable because of the human interaction and diversity of stakeholders on a project, from team members, to sponsors, and to advocates, since each group held a unique point of view (Flannes & Levin, 2005, p. 85). Generally, conflict arose because of personality differences and the systems within the project team worked

such as the “complex and challenging environments” of the work and external environments (Flannes & Levin, 2005, p. 85). The positive aspects of conflict included: acknowledging differences in beliefs, reducing risk of “group think,” and building team relationships by directing the team’s focus and energy (Flannes & Levin, 2005, p. 86). The negative aspects of conflict included: the potential for demotivating the project team if not addressed respectfully, decreasing interpersonal communication, and creating fear of risk taking or removing initiative (Flannes & Levin, 2005, p. 86). Therefore, it was in the project manager’s best interest, for himself or herself, to address conflict directly and move to bring negotiations to benefit all parties if possible.

The final skill a project manager needed to hone is coaching. Dinsmore (1990) described coaching as formal or informal conversations, or relying upon classic management skills (p. 65). Though coaching was most often performed by the project manager, anyone on the team can advise project team members (Dinsmore, 1990, p. 65). Dinsmore (1990) recommended preparing before coaching by considering the timing, depth of knowledge, approach, motivational techniques, benefits, and personality of both coach and person to be coached (p. 66). Though coaching can happen spontaneously and appear from intuitive knowledge, rather than direct knowledge, it was important to recognize these types of formalized coaching sessions, such as: lectures, round table discussions, and seminars (Dinsmore, 1990). The most important lesson about coaching was the diverse ways in which it can be achieved and the project manager had to trust himself or herself to select the correct method according to the team’s dynamics.

Information Technology Project Management

Project managers worked in a variety of professions and were heavily involved in the information technology profession, especially since the rate of change had quickened within the world of technology (PMI, 2015d). Project managers were particularly useful, since they can control a task list and lead project team members (PMI, 2015d). Reich and Sauer (2010) studied their skills and made recommendations for how an external information technology project manager should fulfill his or her role (p. 126). This study surveyed external information technology staff members in the United States, United Kingdom, and Canada with an average of 15 years' project management experience (Reich & Sauer, 2010, p. 126). The external project manager was one not employed from within the company, but was similar to a paid consultant who was charged with working on the company's objectives (Reich & Sauer, 2010, p. 127). When the project manager was external to the company, there were three specific allegiances to observe: the account manager, surrogate sponsor, and profession leader (Reich & Sauer, 2010, p. 127). In addition, Anantmula (2008) wrote on the topic of information technology project management as the role of technology within a project manager performance model. The interviews were conducted in the United States over a variety of industries (Anantmula, 2008, p. 44). The interpretive structural modeling (ISM) methodology was used to develop the performance model, and this model uses two elements of rating at the same time (Anantmula, 2008, p. 34, 38). The study asked interviewees to review a structure within a "system of related elements and analyze it from several viewpoints" (Anantmula, 2008, p. 38). The factors studied via ISM are creating clarity in communications, defining roles and project management processes, communicating

expectations, employing consistent process, establishing trust, facilitating support, and managing outcomes (Anatasmula, 2008, p. 39).

Though information technologists often had to acquire learned technical skills, the project manager, even if working within the technically focused field of information technology, needed to develop soft skills. Skulmoski and Hartman (2010) presented a study from Canada, which aligned specific competencies per project phases for information systems projects (p. 61). The categories studied were: personal attributes, communication, leadership, negotiations, professionalism, and project management competencies (Skulmoski & Hartman, 2010, p. 61). The study was conducted by personal interviews, and the results identified the need for project managers to portray professionalism through an entire project, including project management skills and technical skills (Skulmoski & Hartman, 2010, p. 72).

Lastly, Benton (1999) argued that the main career problem within the technology sector is that project managers believe their work was rewarded because it is good (p. 32). Technologists needed to acquire this skill to support their career advancement, and the projects must be sold along with skills and talents of the individual (p. 32). Reich and Sauer's (2010) study found that education and career development have to be purposeful in the form of taking a sales course, enrolling in a Master's of Business Administration program, participating in public speaking engagements, enrolling in a negotiations course, studying the internal workings of the company, and networking with company employees (p. 129). Another recommendation was to have the project manager reflect upon lessons learned after each project by sharing explicit lessons at conferences or in

written articles (Reich & Sauer, 2010, p. 129), and Benton (1999) also supported the idea of self-promotion (p. 32).

In addition, Skulmoski and Hartman (2010) suggested that task ownership, quality product, self-direction, organization, full participation, and trustworthy team members are important (p. 77). Because Skulmoski and Hartman's (2010) study was specific to soft skill development in information technology projects, the team and its leader need to focus on solutions, innovations, problem solving, and solution development (p. 73). Beyond receiving career advancement or increases in salary, selling projects within the information technology sector will increase the value of the company, thereby creating a more credible and genuine persona (Benton, 1999, p. 32). The behaviors to eliminate include: speedy talking, too many details, projecting a judgmental personality, portraying self-criticism, and weak body stance or voice (Benton, 1999, p. 32). The roles of leadership and management were also important (Anatamula, 2008, p. 38). This is indicated by the people issues that dominate project performance (Anatamula 2008, p. 36).

In summary, the research surrounding information technology project management was similar and provided useful suggestions to the reader. Working in the information technology profession, as in other professions such as construction, came with its own unique challenges and opportunities for a project manager. It was important for the project manager to continue to self-develop and stay focused on the rapidly changing information technology industry by constantly learning about new technologies and by systematically growing career skills in a way to avoid being stagnant.

The Role of Gender

In general, women were “underrepresented in computer and information technology jobs” (Ballard, Scales, & Edwards, 2006, p. 1). Although the 2000 United States Census noted that women comprised 50 percent of the workforce, women only comprised 30 percent of information technology jobs. Information technology has been and currently remains male-dominated, and women who were surveyed in the study noted several career barriers (Ballard, Scales, & Edwards, 2006). Education and family upbringing impact their career trajectory and entry into the information technology field (Ballard, Scales, & Edwards, 2006). Surveys of women in high school and college demonstrated similar computer usage as male counterparts, but there may have been less overt encouragement for women to enter the information technology field from parents or teachers (Ballard, Scales, & Edwards, 2006). In the study of women surveyed, who were embarking upon career transition and were at varying levels of career advancement, the lengthy work days and tight deadlines did not discourage their participation. Rather, the women were more concerned about working in a male-dominated environment (Ballard, Scales, & Edwards, 2006, p. 7). In addition, Neuhauser (2007) designed a study to ask female project managers for a ranking of priority of leadership and management behaviors and to determine the frequency of female project managers actually performing these behaviors (p. 21). A reference to the Women in Project Management Special Interest Group from the PMI was cited as showing growth in female project managers, but this was the only currently available metric (Neuhauser, 2007, p. 22). The article discussed transformational and transactional leadership style and provided a literature review on project management and gender leadership styles (Neuhauser, 2007, p. 22, 23).

The study then asked for a ranking of the transformation and transactional leadership styles based on charisma, intellectual stimulation, inspirational, individualized consideration and influence (Neuhauser, 2007, p. 22). The study asked participants of the Women in Project Management Special Interest Group as a sample, but this was a limited size and indicated results could not be generalized across the project management spectrum, nor could it generalize the female project management population (Neuhauser, 2007, p. 28).

The topic of career development for women in information technology has been studied, and the outcomes are divided as to why there was a perceived challenge to women in this profession (Kaminski & Reilly, 2004). When both men and women were asked survey questions about the perception of gender equality among job security, promotions, and pay, the results were mixed (Kaminski & Reilly, 2004, p. 26). The perception that women were not treated equally, as compared to their male counterparts in the information technology field, scored at 60 percent (Kaminski & Reilly, 2004, p. 26). There has been a measurable underrepresentation of women in upper management, even though the survey purposely asked questions from all levels and types of information technology job functions (Kaminski & Reilly, 2004, p. 26). There was a perception that women are treated differently, but it was difficult to attribute to one specific behavior or process within the technology industry (Kaminski & Reilly, 2004, p. 27). Respondents cited similarities to job security for both genders, but when child bearing was factored into the question, the answers were more direct, with responses such as “women with kids can be seen as a liability” or the existence of the “old boy network,” where upcoming opportunities are not equally shared (Kaminski & Reilly, 2004, p. 27).

Women's salaries did not seem to match equally to men's salaries and it was about a nine percent difference (Kaminski & Reilly, 2004, p. 27). Any discrepancies discussed in the article were concluded with variances in how much of a "family value" the company had, as such a perception influenced the outcomes of job security feelings, promotions, and equal pay (Kaminski & Reilly, 2004, p. 28). Therefore, the research needs to continue in the focus area of the female project manager.

Another way that women may face challenges was in the workplace itself.

Wentling and Thomas (2009) summarized a survey about the workplace culture of information technology and the way culture can hinder or assist career development (p. 25). The research demonstrated both negative and positive outcomes for the impact on a woman's career in information technology (Wentling & Thomas, 2009, p. 36). The negative impact was the information technology's culture of being dominated by men, and it caused women to feel like misfits (Wentling & Thomas, 2009, p. 36). There were previous studies referenced by Wentling and Thomas (2009) that noted actual gender discrimination against women based on the male-dominated information technology culture (p. 37). The positive impact was the career development received as being part of the "training and development programs, resources, mentoring, and challenging work opportunities" (Wentling & Thomas, 2009, p. 37). When study participants were asked specifically about career progression, the majority said they did not progress as quickly as they had perceived they should (Wentling & Thomas, 2009, p. 37). However, this mismatch of career advancement speed did not negatively influence their satisfaction with overall career development (Wentling & Thomas, 2009, p. 37).

In summary, the organization as a whole was meant to provide equal opportunities across the work environment, and the specific barriers should be noted and addressed with programming and mentorship (Wentling & Thomas, 2009, p. 37). Based on 2013 Census data, a personal finance web site named SmartAsset ranked the best cities for information technology jobs and corresponding pay for men and women (Jayakumar, 2015). The area that currently leads was Washington, D.C. based on federal government jobs and a focus on Equal Employment Opportunity laws (Jayakumar, 2015). The largest number of women in the information technology profession was located in New York City, as compared to Philadelphia providing the “smallest gender pay gap” (Jayakumar, 2015). This study may negate some of the overarching presumptions that men are always paid a higher wage in the information technology sector based on gender. Furthermore, women are given career advice that may be inaccurate, such as professional networking, obtaining a mentor and a sponsor, and starting a women’s network with her employer (Green, 2015). Although women and men may have the same total of contacts from previous school experiences, men receive more help in their careers (Green, 2015). This could be because of the persistent “old boys’ network,” where men connect with men and keep women on the outside (Green, 2015). Though this study was focused on the finance sector, it was relevant in other professions, as was the experience, opposite of men, where women became chief executive officers if they stayed at one company for several years (Green, 2015).

Gender plays an influential role in the life of a female project manager and the outcomes may be positive or negative. It was an area that needs continued research and focus. There are a variety of studies that focus on women exclusively, and there are

studies that include men to control for bias. The research needs to continue to explore gender as a way to discuss diversity within project management and within information technology.

Project Management Practice Setting

The basis of this dissertation in practice was to study female certified project managers working in the information technology profession. The specific certification that was studied is the Project Management Professional, or PMP, certification. The certificate was granted by the Project Management Institute (PMI). PMI (2014) has celebrated its 45th anniversary in 2014, having been started by five individuals in 1969 (p. 2). There are more than 2.9 million professionals around the world (PMI, 2014, p. 13). Their current goal was to “continue making connections and elevating the conversation about project management to a strategic level” while making sure the younger generation continues to grow their project management skills (PMI, 2014, p. 2). PMI does more than grant certificates; it continues to reach out through academic research and engages in student outreach to university students (PMI, 2014, p. 4). Virtual training, local chapters, events, and a web portal of global knowledge are available to practitioners (PMI, 2014, p. 5). The PMP certification is 30 years old and was the first certifying credential offered (PMI, 2014, p. 8). In 2014, PMI created a new certification focused on business analysis, and it was named the PMI-PBA for PMI Professional in Business Analysis (PMI, 2014, p. 7). PMI (2014) has a board of volunteers from international locations, and they are elected by PMI members to provide “strategic direction” (p. 12).

Shared or Authentic Leadership in Project Management

When focusing on leadership as a category, there were two relevant articles discussing two types of leadership. Stagnaro and Piotrowski (2014) argued that shared leadership promotes an “inclusive leadership style” and creates “highly effective teams” (p. 4). This was important to distinguish for information technology project managers, since he or she was rarely a technical expert, but was often held accountable for the outputs of a variety of technical team members (Stagnaro & Piotrowski, 2014, p. 5). Specific to shared leadership was “shared decision-making and collaboration” (Stagnaro & Piotrowski, 2014, p. 5). This leadership style also “recognizes the complexity of interdependence and mutual team leader and member influences,” which are needed to lead an information technology project (Stagnaro & Piotrowski, 2014, p. 6). The shared leadership model allows leadership to flow to other technical leads on the project team from the information technology project manager (Stagnaro & Piotrowski, 2014, p. 8). Shared leadership also allows for “social interaction” that was “dynamic, multi-directional, and inclusive” (Stagnaro & Piotrowski, 2014, p. 8). The last difference in shared leadership allows group learning from interactions, and this leads to more overall understanding in the team and a more positive outlook on the whole (Stagnaro & Piotrowski, 2014, p. 8). In summary, shared leadership means that the opportunity to lead was shared with everyone, regardless of where or how the individual reports through the organization, and it gives opportunities for leadership for anyone who was interested (Stagnaro & Piotrowski, 2014, p. 10). The influence of gender was mentioned briefly in terms of cognitive style and that generally collaborative skills were seen as a “feminine cognitive style,” but both genders could implement the style (Stagnaro & Piotrowski, 2014, p. 13).

The second article about authentic leadership proposes a model and a capability maturity model (CMM) that can be expanded upon in future research (Lloyd-Walker & Walker, 2011, p. 392). The ideals of “trust, shared values and affective commitment” are the core of authentic behavior (Lloyd-Walker & Walker, 2011, p. 392). Each area identified in the capability model has an accompanying maturity rating, such as “Foundational, to Recent, Developing and Mature” (Lloyd-Walker & Walker, 2011, p. 392). This model could assist in moving authentic leadership toward transformational leadership, but there was a need to research this further, as noted by the authors (Lloyd-Walker & Walker, 2011, p. 393). The takeaways from the researchers are that this model can be used for project manager “recruitment, retention, and development” within their careers (Lloyd-Walker & Walker, 2011, p. 393).

Reflections of the Researcher

The literature review helped me determine the key themes of the dissertation. The themes of project management within information technology and a focus on the impact of gender create a unique dialogue. During the literature review, I did not find an exact replication of my study and these specific key themes. There were articles that reviewed project managers’ skills, focused on gender, or focused on the information technology profession. Instead, I have pulled together various articles that, when combined together, support the need to continue to research in these areas. I want to find more support for the themes from books, and I have ideas about where to continue this search. I plan to search for videos to determine if there are any academically-focused TED Talks that could support these research topics. In general, literature was easy to find regarding one of the themes. However, it was the combination of themes, even if only in pairs, that proves

difficult to find. I intend to continue reviewing literature to see how it evolves. There are more articles focused on gender and how it interplays with either power or leadership, and it was possible the dissertation could unfold into that topic area. This dissertation in practice will shine a light and stimulate discussion about the three key themes of project management in information technology with a focus on gender.

Summary

The second section of the proposal provided a brief review of the current literature in the project management and the information technology professions, with a focus on gender roles. These topics are important because the project management field was growing in numbers, and it will continue to be a useful role in the information technology profession. Studying gender through these two lenses provides an opportunity to dialogue about the need to observe females' experiences and hear their opinions about the project management role within the information technology profession. The strength of the literature was that journal articles referenced are mostly recent articles, published within the past 10 years, with one exception. The articles support the need for project managers to bring skills to their profession or continue to cultivate specific skill sets to become successful. Information technology project managers face specific challenges in working with highly technical staff members and often work outside their knowledge comfort zones with the need to manage a diverse team. It was not challenging to find literature on the study of gender, though some articles focused only on women and some studied both genders to offer a balanced perspective. The weaknesses of the literature review are in the lack of book references. Though the literature review will continue evolving amid the dissertation in practice, the inconsistencies or gaps that emerged are

difficult to find. There was a need for female project managers to be studied, and there was a need for female information technologists to be studied. In closing, it was my hope that this research could be utilized by companies desiring the development of information technology project managers while being aware of the experiences from a female perspective.

CHAPTER THREE: METHODOLOGY

Purpose of the Study

The purpose of this phenomenological qualitative study was to explore the influence of the Project Management Professional (PMP) certification on the careers of PMP certified female information technology project managers who are current members of a local Project Management Institute chapter. This study focused on the interpersonal skills from the PMP certification.

Aim of the Study

The aim of this study was to determine the influence of the Project Management Professional certification on female project managers based on data gathered from interviews with project manager practitioners working in the field of information technology.

Proposed Methodology

The proposed methodology was a qualitative study focused on the phenomenological study of project managers. The data to inform the final product was collected by randomly selecting a small number (six individuals or less) of people to conduct individual face-to-face interviews. The individuals must be female project managers working in the information technology field who are certified by the Project Management Institute as Project Management Professionals or PMPs. Specifically, these project managers were members in a chapter of the Project Management Institute. The goal of the data collection was to determine the perceived value of the PMP on participant's career progression. The methodology was narrative, which was an appropriate type of data collection because the stories of individual project managers

were shared for determining the participants' perceived value of their project management certification as having an impact on their careers.

Overview of the Planned Data Collection

The interviews were conducted in the field at my place of work in a neutral conference room located on the main campus of Loyola University Maryland. The participants are female information technology project managers working in the field for at least five years with their certification as a Project Management Professional or PMP from the Project Management Institute. They will also be member of the local Project Management Institute chapter located in Baltimore, Maryland. They are important because they are an understudied subgroup of the project management profession. It was engaging to the project manager's profession to focus on the perceived value that female project managers have regarding the impact their professional certification had on their career, if any, and how valuable the certification was to their career progression. Interactions with at least six participants while conducting face-to-face, one-on-one interviews individually will inform the results of the study. In addition to the need to study a group that has been underserved in current research articles, it was possible to select them, since there was a strong information technology presence in the Baltimore Chapter of the Project Management Institute. The goal of the research was to understand whether the Project Management Professional certification was as valuable as it seems to female information technology professionals who are certified as PMPs.

Instruments for Data Collection

I plan to collect information via face-to-face interviews with project managers at the researcher's place of work in a conference room. I created a set of interview questions

that were reviewed by my dissertation committee. I recorded audio interviews in addition to taking handwritten notes, and I transcribed both the handwritten notes and the audio recordings of the interviews. Member checking was another way to determine accuracy of the results, and I shared the major themes of the dissertation with participants for review and provided them an opportunity to comment on the results (Creswell, 2014, p. 201). I saved electronic data to a flash drive, to a hard drive, and then to cloud storage provided by Creighton University. I kept the paper transcription in my home after leaving the employer's location with the paper interview notes. These notes and audio recordings will be destroyed after five years from the publication of the dissertation. The example interview questions are located in Appendix A.

Gaining Participants

The research participants were chosen based on the membership list for the Project Management Institute's Baltimore chapter. I randomized the way I selected those who list that they were in the information technology field, identify as female, and have been working for at least five years in the field. Additionally, I described the selection process clearly in my dissertation to eliminate any planned or accidental biases. If I cannot proceed by reviewing a membership list, then I can attend a local dinner meeting and ask attendees if they were interested.

Necessary permissions came from the individuals and perhaps their companies. It was possible that there are government contractors working with firms that cannot identify the work that they do, and for that, I needed to be aware. After confirming the participant list, I planned to use email and telephone to communicate with them. I was

not sure of the potential obstacles yet beyond finding participants, gaining permission to interview them, and planning the interview scenarios.

When the time was correct, and my dissertation committee approved the study, along with the institutional review board, the timeline for contacting the participants and scheduling interviews could occur in late fall of 2015. Knowing that this was a target goal for interviewing, the plan must be worked backwards from that goal.

Planned Procedures

The specific plan for how I will collect evidence was listed below in a step-by-step list, breaking out tentative timelines by month.

October 2015

Step 1: Invite second committee member to work with me.

Step 2: Propose dissertation to committee members.

November 2015

Step 3: Gain IRB approval.

Step 4: Consult with the Project Management Institute's Baltimore Chapter to gain access to chapter members as participants.

Step 5: Determine names with a blind choice process, for which I will need assistance with designing.

December 2015

Step 6: Invite the participants with email messages, paper letters, and telephone calls if I have all pertinent contact data to use.

Step 7: Gather recording equipment and determine an interview location.

Step 8: Send consent forms and schedule interview dates for January 2016.

Step 9: Confirm scheduled interview dates.

January 2016:

Step 10: Conduct interviews over a two-month period of January 2016 and February 2016.

March 2016:

Step 11: Analyze interview data for common themes.

Timeline for the Study

Below, the study's timeline consists of the months and the detailed steps to be achieved.

October 2015:

- Propose dissertation to committee.
- Apply for IRB approval.

November 2015:

- Contact the Baltimore Chapter of the Project Management Institute to discuss the study.
- Create a list of potential participants and choose them randomly for interview invitation.
- Solidify data capture plan and secure recording equipment.

December 2015:

- Send and obtain the consent to participate in the study by each possible participant.
- Continue to write and refine the literature review.

January 2016 and February 2016:

- Conduct qualitative interviews.
- Continue to use bracketing and journaling.
- Begin notes about common themes.

March 2016:

- Analyze data for common themes.

April 2016:

- Write the dissertation chapters according to the template.

Data Analysis Plan

To analyze data, I plan to organize data by interview date and work through, methodically looking for themes. From there, I will assemble the data by creating charts based on themes, followed by analysis of the data by determining basic numerical metrics about how many participants noted the same theme. Data was synthesized by showing how it provided new data to the project management industry, which was both specific to the information technology field and with regard to women as the gender. Once the data was synthesized, then I planned to examine common themes from interview responses and code the themes accordingly. I did not plan to utilize a data analysis software tool at that time.

Leadership Roles/Implications Related to Data Collection

The project manager was a leader of project initiatives, which refers to a set of tasks, and was a leader of people, which refers to the project team. As such, leadership was a built-in requirement for the project manager. Throughout the degree program,

several leadership theories were investigated and were discussed. The project manager most properly fits into the servant leadership category and was backed by Lowney's (2003) statement of everyone being a leader at all times. The project manager may serve in his or her role with or without certification. However, the Project Management Institute's Project Management Professional, or PMP, certification was one strategy to prove that through experience, planned coursework, and examination score, the project manager was qualified at a base level. This certification appears to be an industry standard, but there was not much research on its perceived value. To control the research, the professional area of information technology was selected and to further focus on gender, this study reviewed the perception of value of the PMP for female project managers.

Ethical Considerations

The ethical considerations that I had to be aware of pertain to my own bias. I was a female project manager with the PMP certification and worked in the information technology profession. By interviewing project managers outside of my employer, I hoped to gain a solid foundation of not having inherent bias because I did not interview peers with whom I work. For IRB approval, I described how the evidence will be stored. I created digital audio recordings of the interviews, and I transcribed them using Microsoft Word. The recordings were stored on a flash or portable drive, and they will be destroyed after the minimum waiting period. Participants were presented with consent forms, and if I did not receive the signed consent form, then I did not interview the participant. If identity protection was needed, then I coded each participant with a letter

and number combination with an accompanying chart for the appendix section of my final dissertation. Regardless, there was no use of personally identifiable information.

There were three specific ways I ensured I was checking for bias: triangulation, bracketing, and use of an external auditor (Creswell, 2014, p. 202). I used triangulation by providing different data sources and a variety of perspectives from the participants (Creswell, 2014, p. 201). I conducted bracketing by keeping a journal of my “thoughts, feelings, and impressions” and this journal can be consulted when my committee has questions about the research (Herr & Anderson, 2015, p. 98). I worked with a qualified external auditor who will review my work (Creswell, 2014, p. 202). These three processes kept my awareness of bias activated and checked.

Summary

In closing, the purpose of this study was to conduct a qualitative study of phenomenology of the female project manager working in information technology with the Project Management Professional certification. The aim of the study will determine the perception of the certification on the project managers’ career with in-person interviews. The goal was to inform the profession with evidence-based research about the perception of the PMP certification’s influence on a project manager’s career. Through incorporating reflective practices, this study could provide new ways of understanding the influence of certification.

CHAPTER FOUR: FINDINGS

Introduction

This research focused on studying the perceived influence of the Project Management Professional (PMP) certification on the career of the female information technology project manager. The central research question stated: What is the relationship between the attainment of the Project Management Professional (PMP) certification from the Project Management Institute (PMI) and a perceived benefit to career development for female information technology project managers? The purpose of this phenomenological study was to explore the influence the PMP certification had on female information technology project managers who were also current members of a local Project Management Institute (PMI) chapter. Data were gathered by way of in-person interviews with six female project managers working in the information technology field. At the beginning of data analysis, one participant decided to drop out of the study, and as a result, the remaining data points focused on the five remaining participant interviews and field notes taken by the researcher during the interviews.

This chapter reports the results from these interviews regarding how the PMP certification has a perceived influence on the careers of female information technology project managers. Questions were based upon version 5 of The PMBOK, A Guide to the Project Management Body of Knowledge (PMI, 2013b, p. 513). This edition contains an appendix listing the necessary interpersonal skills for project managers. Prior to asking specific questions about these interpersonal skills, the interview began with questions about the PMP certification, the PMI membership, and the approximate number of years the project manager has worked with the certification in the information technology field.

The second section of general questions focused on the impact the PMP certification had upon each professional's career by pursuing answers as to why she became a project manager as well as explaining her rationale for pursuit of the PMP certification. The study also included questions about professional positions since earning the certification, the influence of the PMP on attaining these positions, the necessity to have the PMP to manage projects in a professional setting, and how valuable the PMP certification was to each professional's career in information technology. In focusing on the three main research questions, these interpersonal skills were categorized into three groups, reflecting on relating to others, self, and human resources' interactions. The interviews gathered data in direct response to these three research questions:

1. In reflecting on relating to others, these interpersonal skills are listed in the PMBOK's appendix: leadership, team building, influencing, and trust building.
 - a. How do you utilize these skills in relating to your project team members?
2. In reflecting on relating to self, these interpersonal skills are listed in the PMBOK's appendix: motivation, communication, decision making, and political/cultural awareness.
 - a. Describe how you call upon these skills in your daily work life as a project manager.
3. In reflecting on relating to human resources' interactions, these interpersonal skills are listed in the PMBOK's appendix: negotiation, conflict management, and coaching.
 - a. Describe how you have had to utilize these skills in relating to human resources management with your project teams.

Review of the Methodology

All interviews were in-person and recorded using a handheld wireless recorder, and captured additional observations as field notes, summarizing and including in the analysis as they fit with themes from the research findings. All electronic recordings of the interviews were removed from the recorder and saved to the researcher's laptop. After this process, I uploaded recordings to the web site Rev.com for the creation of written transcripts for each interview. I then verified recordings by matching the interview date, name of participants, and a cross-check of the written transcript and original recording for accuracy. I chose to handwrite field notes during each interview, so as to not create a distraction by typing on a laptop while capturing the voices on the recorder. The field notes were later typed and saved into one document per interview, for a total of six field note documents. Field notes for the one participant who declined to participate in the research were eliminated, and this data will remain confidential along with the other five participants' answers.

Creswell (2014) presented six steps to analyze qualitative data: first, prepare data for an organized analysis by having interviews transcribed, finalizing field notes, and sorting data by sources; second, read all data and handwrite notes on the transcripts to start capturing thoughts about the data; third, begin coding the data by creating categories or brackets of information across all of the data, including codes that were expected, surprising, or unusual; fourth, describe the participants while coding, including details about people, places, or events within various settings; fifth, provide a narrative passage to present findings of the analysis via chronology and detailed discussion of themes, along with visuals, figures, or tables; sixth, present the researcher's personal

interpretations in a flexible, adaptable form, such as a comparison of findings or how findings confirm past information, move away from it, or suggest new questions (pp. 197-201).

Creswell (2014) encouraged researchers to follow the six steps listed in the previous paragraph while pairing it with one specific data analysis category. Creswell (2014) stated that phenomenological research “uses the analysis of significant statements the generation of meaning units and development of essence creation” (p. 196). The overall themes discovered in data analysis can create a general description as additional analysis for phenomenological research (Creswell, 2014, p. 200). Since this was a qualitative study, the research questions were written to generate open-ended responses based on three overarching categories of the soft skills listed in the appendix of the Project Management Book of Knowledge (PMBOK). From these open-ended responses, descriptive themes emerged to give meaning to the experiences of the project manager participants (Creswell, 2014).

Data analysis began after all transcripts were received from the transcription service. They were printed and read carefully while the researcher made notes in the margins regarding potential themes that stood out. The researcher used coding by hand to ensure accuracy, as it allowed for returning to the original transcript to continuously check for emerging themes in the data. As this analysis continued, themes found repetitively were moved under headings and then compared to the three main categories of the research questions in reference to the soft skills listed in the appendix. As Creswell (2014) noted, emerging themes were compared to identify the interrelationships, which then became the final analysis and presentation of next steps for the research to continue.

Data Demographics

The six interviews were conducted with only female participants. They were members of the local Project Management Institute (PMI) chapter, worked in the information technology field, and earned their Project Management Professional (PMP) certification. In addition, they were local PMI chapter members who read their chapter emails and responded to the request to participate in the research. The local PMI chapter email message requesting participants for research referred five of the study's participants, while the researcher's professional network referred one participant. This one participant came to the researcher as a referral from a professional connection to a PMI chapter volunteer's co-worker. The first section of interview questions contained three specific questions with the answers detailed in Table 1 below. The first question asked the month and year of achieving the PMP from the PMI. The second question asked how long she had been a member of the local chapter of PMI. The third question asked for an approximate estimate of the number of years she had worked as an information technology project manager with the PMP certification, choosing one of the two answers: five years or less, five years or more.

Table 1

Section One Questions Research Participant Demographics

Participant Pseudonym	Gender	Referral Person/Group	Month/Year earned PMP	Year joined PMI local chapter	Years working with PMP
Anne	Female	PMI local chapter email	March 2008	2010	More than 5
Becky	Female	PMI local chapter board member	July 2013	2013	Less than 5

Caroline	Female	PMI local chapter email	July 2014	2013	Less than 5
Dana	Female	PMI local chapter member referral	February 2009	2006	More than 5
Elizabeth	Female	PMI local chapter email	May 2009	2008	More than 5

Data Analysis

Data collection took place over a three-month period, including six separate, structured interviews conducted in-person. Data coding occurred after the final interview was completed. A professional transcription service transcribed all the interviews, offering a 24-48-hour turnaround time after submission. The researcher coded by hand, since it allowed the researcher to read the transcripts multiple times and discover themes in the data. Nvivo software provided validation of themes using word clouds.

Results

The researcher provided participants with three separate sets of questions. The questions were open-ended and written to generate descriptive and data-rich responses from participants. The first set of questions was designed to create a baseline of statistics for the researcher about participants' Project Management Professional (PMP) certification and Project Management Institute membership, which is listed in Table 1. The next set of interview questions focused on the impact the PMP had upon the participants' professional careers. The third set of interview questions was designed to understand participants' observations about utilizing the interpersonal skills listed in the appendix in the Project Management Book of Knowledge (PMBOK).

These questions generated themes that were broken out into three categories in the next section of this chapter, followed by presenting generalized, non-categorized data

before the chapter closes. The first of the three categories resulting from question-generated themes, Roles of the Project Manager, has six sub-categories: responsive leader, fellowship builder, safety net provider, peacekeeper, success coach, and certified expert. The second category, Communication as Strategy, has four sub-categories: communication is control, communication is variety, communication motivates, and decision making communication. The third category, Project Management Career, has two sub-categories: career evolution and employer support and self-motivation. As stated in Creswell (2014), qualitative questions guided the participants to offer “thick or rich descriptions” of their experiences that make the assessment come alive to the reader (p. 202).

Themes

Research participants’ responses to the three research questions fell into three thematic categories. In the first category, responses focused on the variety of roles the project manager has held, including: responsive leader, fellowship builder, safety net provider, peacekeeper, success coach, and certified expert. In the second category, responses centered on communication as it controls, has variety, motivates, and aids in decision making. In the third and final category, responses discussed the theme of the project management career, focused on career evolution and employer support and self-motivation. Before closing this chapter, there were data to discuss that were not categorized by theme, but rather, were responses worth noting as significant to the participants. These were the variety of professional positions after earning the Project Management Professional (PMP) certification, the perceived influence of the PMP certification on her career, the PMP as a requirement to work in the project management

field, and additions to the interpersonal skills list.

Category One: Roles of Project Manager

These roles of the project manager broke down further into six central themes: responsive leader, fellowship builder, safety net provider, peacekeeper, success coach, and certified expert. Though participants were not asked specific questions regarding these themes, their answers provided evidence that these were roles she may need to undertake on any given day and on any given project. The participants shared these variety of project management roles as ways in which they believed they were able to achieve success and overcome conflicts and keep boundaries healthy in their daily work.

Responsive leader. When Elizabeth started her current job, she believed she “brought leadership, just because there wasn’t really any day to day leadership.” She continued to clarify that, to those outside of her company, she was perceived as a general manager and her leadership perception both internally and externally to her company was to be “responsive,” so she replied to emails, phone calls, and said her “door is open.” Elizabeth provided solutions to problems as a way to show leadership. Anne led, even though it was not a specific part of her job description. She led to be a mentor and learn more about “complaints” or “problems,” and this leadership flowed out of hosting meetings at work with other project managers to discuss processes and process improvement. Becky discussed leadership as someone who knew the answers, and she had to “take the time to go find the answer if I don’t know it or I will provide an answer.” After Becky obtained the answer, then she shared with the person about how to find a similar answer in the future by sharing where the answer was found. Dana led with honesty by stating deadlines up front and then asked for options to make the deadline,

such as flexible work schedules or shuffling other priorities to make this deadline. By listening to the feedback of the team, Dana provided leadership by guiding the focus of the team to what was most high priority.

Fellowship builder. Participants noted that the project manager needs to stay in charge of the project team. Team-building was about finding fellowship and utilizing this fellowship to achieve the objectives of the project. Becky used the approach of being present with her teams. She took her teams to lunch, and her goal in doing so was to have the team members relate to one another in a “more relaxed atmosphere.” Becky hosted brainstorming meetings as another technique to get “to know each other and start communicating,” and she utilized a “buddy” approach to give a new employee knowledge about the company and the project teams’ work. Dana found that if she had to discuss pros and cons of a decision, then she stated everyone’s positions before asking if she stated them correctly. Dana found this “builds” trust because it focused the team on the “business problem” they were trying to solve. Elizabeth practiced influencing techniques with the software developers with whom she worked while working alongside and assisting with “the requirements, the testing, the QA, the release notes.” Elizabeth, as well as Becky, utilized the brainstorming technique and asked questions to build the team. Caroline built fellowship by making certain people understood “that I do have their back” and that she had been able to own her mistakes by giving an apology and moving on. She also offered fellowship over desserts provided at the end of meetings where there was an informal venting of frustrations. Though Caroline reported that she had to work with project teams that were assigned to her on a “who’s available” schedule, she often tried to build teams by stopping by their cubicles to talk or to schedule formalized one-

on-one meetings, and she gave everyone her cell phone number, welcoming all to call her as needed.

Safety net provider. The project manager has acted as the protector of the team and has made this an effective relationship. In addition, they often need to influence their teams and establish trust. Dana established trust by being “honest” and listened “to their input if they have options to suggest.” She chose to influence her teams by staying embedded with them for the long work days and expected her team to reciprocate her level of dedication. Dana stayed with the team and was “available to answer questions.” Caroline needed to influence others because “people didn’t directly report to me,” so she had to show that people could come into her office to talk, and they had to “deal with this problem” and negotiate. Anne was able to “act as a helper and as a facilitator” to build trust with her team members, and she reviewed documents in advance before they had to go to the boss for review. Becky aimed for transparency by hosting regularly scheduled meetings, either weekly or bi-weekly, to detail the information that was “coming down from upper management,” to “address any rumors,” and “bring up front what we think people are saying” as a way to gain trust. She wanted to be sure the employees trusted her and for them to know that she was “not trying to hide anything from them.” Becky identified teams “all working in silos” and had to ask for a break in the silos to bring about project success.

Peacekeeper. Project managers have been responsible for managing teams of people and need to employ tactics to manage these people as resources on projects. As a daily task in interacting with humans, a project manager may find herself faced with utilizing negotiation, conflict management, and coaching as skills to keep the project on

track to success. The creative answers the project managers provided illustrated the theme of the project manager keeping the peace through a variety of techniques. Though the words “peace” or “peacekeeper” were not used in the questions or in the responses, the moniker was a way to capture this theme and categorize similar behavior among the participants. Caroline practiced kindness by always giving “the person the benefit of the doubt,” even if every other strategy had failed her in managing the team member.

Caroline aimed to start with kindness and had been “as kind as we can possibly be.”

Elizabeth shared a similar story by offering guidance versus dictatorship; even though she was a self-described “strong personality,” she chose to not be “too pushy with them” and to “try to make it more of a collaboration and we’re with them.” Anne pulled from the Golden Rule and behaved with her project team by treating them “like I would want to be treated” and “try not to judge” until the whole story had been explained. Along with keeping the peace, Dana found that another successful technique was to “emphasize anything positive” and she made sure that “positive accomplishments” did not get ignored by the team. Dana also aimed to “acknowledge the other person’s viewpoint” and “come up with something win-win” while the aim was to achieve the project’s goals.

Success coach. Participants were asked about coaching, and they provided a variety of answers. Dana noted that she first asked the individual to identify the skills they already had and the skills they needed, and then she identified a plan to make the skill development happen. One strategy she used was to find the individual “a mentor, who’s better at something than you are, and learn from them.” Becky took team members through simulations of how to think through different perspectives, especially when work had to be done with aggressive personalities, as she reminded them if the team member

would not respond aggressively, but chose to stay calm, then “after a while they’re not going to be as pushy or aggressive.” In addition, Becky’s company sponsored formalized learning sessions on how to communicate and prioritize. In interactions with new team members, Becky gave reminders about not getting too upset and to let the work speak for itself, while patience was promoted as a first response. Becky also handled coaching for negotiation because it was important to understand how to negotiate for deadlines and task completion when communicating directly with the customer. Elizabeth leaned on her formal background in training to turn those skills to coaching, as she was “willing to work with people and help people” as a mentor. This process came from Elizabeth’s organized way of working and she found that she has collaborated through writing requirements, for example. In a similar way, Caroline specifically described “one on one coaching” with herself and with other “buddy” co-workers to teach each other the skills that were identified as needed for success.

Certified expert. Participants all had achieved their Project Management Professional (PMP) certification. This created a formalization of their potential skills, as they had all passed the same industry standard exam. When asked if the certification was useful to have, the majority agreed it was useful. One participant indicated that it was not valuable to her, but she clarified this statement by noting she had never moved from her company, so this could have been a contributing factor. Perhaps she would have found the certification valuable if she had been job-searching outside of her company. Regarding the technical language involved, best practice dictated that it was to standardize project terms, and the PMP certification brought value to the participants, their teams, and customers by standardizing on process and terms.

Anne: I think that PMP is very good because the kinds of information technology I've always worked on have been . . . very complex . . . and you have to be able to speak their language or speak something between our IT language and their language so you can find common ground, and PMP has a lot of good stuff in there that helps with that.

Becky: It's not being used right now . . . project management work is done by our customer. They take those roles, but it's good for us to understand those roles so that we can help enhance their position.

Caroline: It's good to have a certification to show what I am doing. I think it's going to be valuable, considering the number of knocks on my door I've gotten.

Dana: Not at all. If I ever need to look for another position, it will be helpful.

Elizabeth: There are aspects that are more useful, things that you learn that are more useful and that you use.

Category Two: Communication as Strategy

The other major collection of themes from the participants was surrounding communication and how they executed communication as a strategy while managing projects. Communication arrived in a variety of ways: to exert control, utilize various media, offer it to create motivation, and explain how it was required for decision making. The participants were asked about communication, however, not in these specific themes.

Communication is control. When the project manager was thinking about herself and the interpersonal skills that she called upon in daily work, communication charged to the top. It was the topic of circular comments and it threaded itself through many answers. Specifically, when relating to herself, communication was an

interpersonal skill that she could control and she adjusted as needed for a selected media or audience. Becky noted that she and her team “bounce off” ideas with each other when drafting communication, such as emails. A message was reviewed by her team for “context and tone.” Elizabeth noted that she would “take the lead on a lot of the communication.” Anne commented that the PMP made her more aware of acronym usage and the “overloading” of too many acronyms that cross professions and can bring different meanings from different groups, thereby causing confusion. When noting the work within information technology as a project manager, Anne clarified the need to “speak their language or speak something in between our IT language and their language so you can find a common ground . . . PMP . . . helps with that.” Caroline supported the control that communication brings by noting “communication is a big thing, especially with a large team and a lot of moving parts in a large organization.” Caroline’s team was also responsible for “drafting all of the written materials” and then Caroline worked with an official communication department to share the message.

Communication is variety. Communication took different shapes and forms via the medium chosen. Becky discussed the variety of communication media she uses to facilitate communication, including face-to-face, email, and instant message. Caroline added to the variety by noting that formalized newsletter, computer screen share, listserv, and text messages were often utilized by her team. If a project team member started an electronic conversation thread via instant message, then Dana remarked that she will often “pick up the phone or . . . walk down the hall if someone is nearby.” Becky noted that she brought project groups together into larger project team meetings. She stated an additional creative face-to-face meeting which is scheduling lunches with her project

teams to allow them to “get to know each other and start communicating with each other.” The variety of communication media are noted in Figure 1: Communication Media.

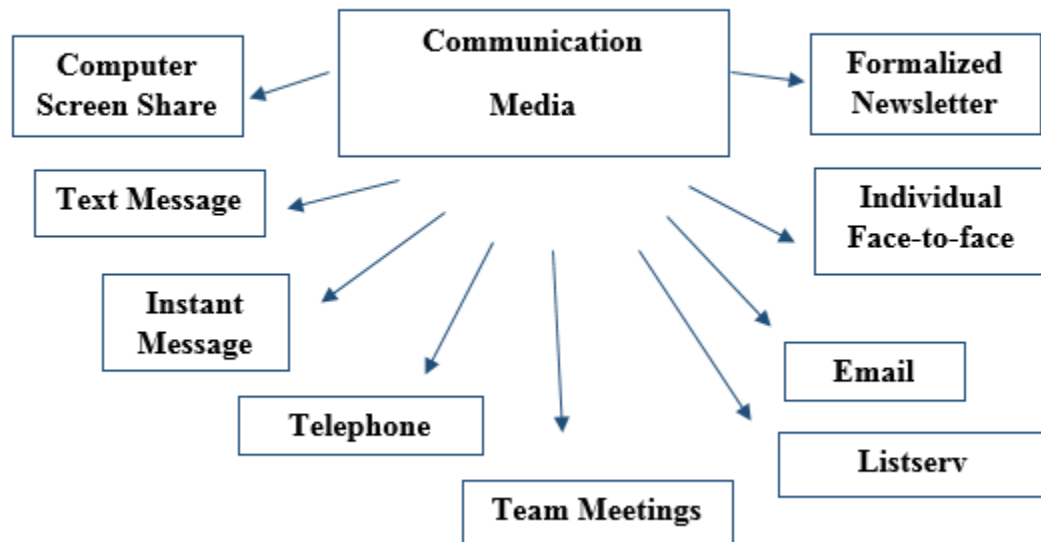


Figure 1: Communication Media

Communication motivates. Communication provided the foundation for the building of motivation among project team members and was an interpersonal skill the project manager could use to provide motivation to the project team. Motivation was an interpersonal skill that was discussed in reflecting upon herself. Becky specifically described her communication as “positive communication” and provided follow-up via thank-you notes to her project team members. Becky stated that she would “praise in public” and at one point the teams had “blue chips” as incentives and this underscored her self-evaluation of “my jobs have always been about the people, not the actual work.” Becky cited her motivation was to “do anything . . . to help others.” Dana has done what Becky has done and “emphasize anything positive” and she found that “positive

accomplishments get overlooked.” This emphasis on positivity made for a happier team because the effort provided balance and stability. Caroline saw motivation coming from her because she was the boss, but she did try to be “very honest with them” and her project teams understood that there were plans she had and what executive leadership did or did not support.

Decision making communication. Decision making required several items listed in the Project Management Book of Knowledge (PMBOK). As Caroline noted, she had to think of how to “start with step 1” and had to find a sponsor, subject matter experts, and made an activity list. The two roles of sponsor and subject matter expert were communication from the beginning of the project. It was also something that can be controlled by the project manager, which supported the control coming from communication as well. Dana used goal setting and communication about these goals to support her decision making. In addition, she used process management from the PMBOK to make decisions, as well as asked herself about benefits, risks, and outcomes. Elizabeth did not “make solo decisions” and instead, consulted with her peers before a project began and then she could assess the products in the market and could bring options to her supervisors. Becky used communication to support her decision making as well by consulting with others and tried to “weigh two sides of the decision” and sometimes just “go with [her] gut.”

Category Three: Project Management Career

The third category discussed the project management career, specifically the evolution of the project manager’s career and the support from her employer and her own self-motivation. Participants were asked specific questions surrounding these topics, and

their answers provided details about the nontraditional paths project managers often take to obtain and maintain their career objectives.

Career evolution. When asked about why the participants became project managers, the main thematic answer was based on an evolution of the career in which they were already working. While the information technology profession had several areas to begin a career journey, three participants noted that they arrived in these positions by being promoted and increased job responsibilities.

Anne: I guess I worked my way up to or into the position.

Becky: I think I was tired of being technical, and the opportunity arose, and I just stepped into that opportunity.

Dana: I became a project manager through a series of increasing responsibilities and promotions.

One participant noted that she wanted to become a project manager because she saw it modeled in other coworkers.

Elizabeth: I was working with certified project managers, and so I realized that they were approaching things a little differently.

Another participant noted that her supervisor was supportive and encouraging of the movement into project management.

Caroline: It seemed to make sense to me. [My boss] said this really matches with what you've been doing.

Employer support and self-motivation. Each participant had a reason to pursue the Project Management Professional (PMP) certification. When asked to explain why, the answers fell into two categories. The first category was because management

supported them during their employment. The second category was because the participant had the self-motivation needed to achieve this professional recognition and add to their professional skillset.

Anne: My manager actually told me that getting a PMP was going to be one of my annual performance goals.

Becky: That was strongly encouraged by our corporate leadership, where they wanted all of the managers to go and pursue their PMPs.

Caroline: [My boss said] I think it would be good for you to look into this PMP certification. I think this really matches what you've been doing.

Elizabeth: The company was encouraging us to get certified. I think they gave me \$1,000 [for earning certification].

Another participant described pursuing the certification as a part of performance recognition.

Dana: To get recognition for the training and skills as a project manager.

Variety of professional positions post-PMP certification. Research participants were asked for descriptions of the professional positions at the current or former employers since earning the PMP certification. Figure 2 describes the variety of positions of the current and former professional positions. This figure illustrates that many times participants self-describe as project managers as their job function and after earning the PMP, but the job titles spanned a wide variety of descriptions.

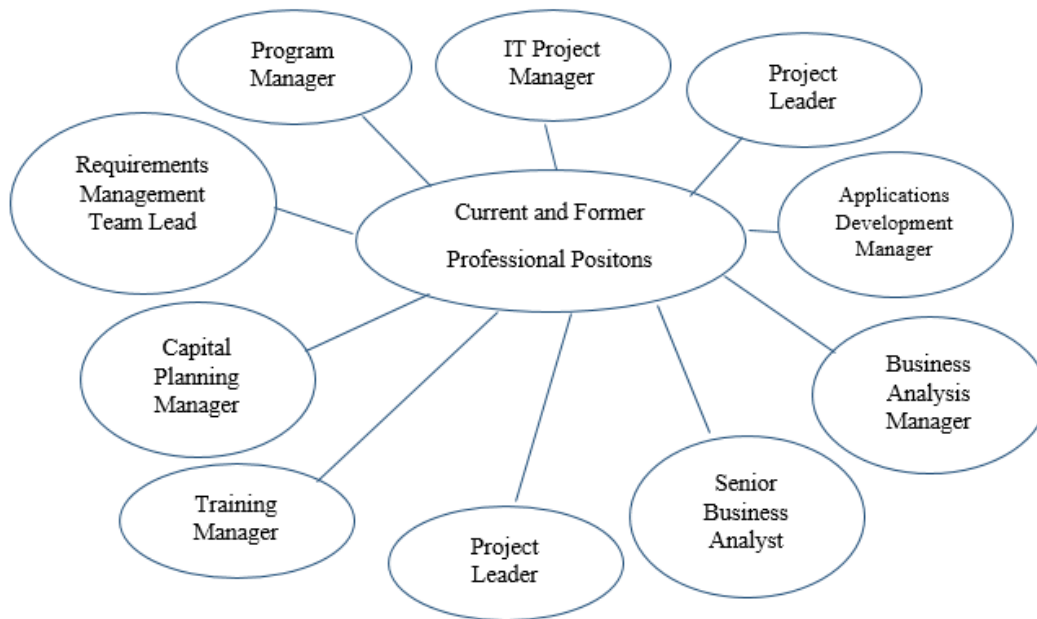


Figure 2: Section Two Question - Current and Former Professional Positions

Influence of Project Management Professional (PMP) certification. When participants were asked about the potential influence that the Project Management Professional (PMP) certificate had on their careers, the answers were split. Some felt the certification had a direct, positive impact on the attainment of their jobs and some felt that there was no impact, since it was not a job requirement or they were already in the position when they earned the certification. Both Anne and Elizabeth felt that it was the reason they were considered for project manager jobs.

Anne: I believe if I had not had the PMP I would not have been considered for those two positions.

Elizabeth: It was highly desirable, and if I didn't have it they would have forced me to get it. It's really advantageous to have the certification under your belt.

For Becky, Caroline, and Dana, they noted in their discussions that the PMP certification was not influential in the attainment of their positions and they could point

back specifically to the details in the job description as it being possibly preferred, but not required.

Becky: I was already in the first position when we were asked to get the PMP.

The second position, I don't think a PMP was required.

Caroline: No. It might be preferred in my job description. I don't think so, because the woman who had the position before I did, did not have a PMP.

Dana: No. It has recently started appearing on the job applications. It'll typically say "preferred."

Project Management Professional (PMP) requirement. The majority of the participants did not believe the PMP certification was required and that there were potentially good and bad project managers in the field; therefore, having the PMP was not a deciding factor. One participant believed the certification was helpful in that it brings together a common language of terms and definitions of those terms.

Anne: I've seen people who don't have a PMP be able to manage . . . but I think the PMP is an excellent way to learn all the different areas of discipline that you need in order to become a project manager.

Becky: I don't think the certification is actually required. I think, and what the leadership has finally conveyed, is that they wanted us to be able to understand the principles of project management as referred to in the PMBOK.

Caroline: I don't think it's required.

Dana: Not at all. I know amazing managers who don't have it. I know mediocre people who do.

Elizabeth: I think that it really does help to be on the same page as other project managers, because using the same language knowing you mean the same thing and have better understanding of one another.

Additions to the Project Management Book of Knowledge's (PMBOK)

interpersonal skills list. The last question asked the participants to add to the next version of the PMBOK's interpersonal skills list. This was a question asked with a reminder to the participant that they have had field experiences now and if they would have added any other interpersonal skill to the list. There were some participants who answered with new ideas and some participants who declined a new item and reported that the list was already comprehensive to them.

Caroline: Peacemaking. Accountability. Humility.

Anne: Case Studies. Vignettes.

Becky: Affirming. Rewarding.

Dana: Those look pretty comprehensive. I don't really see a whole new skill area.

Elizabeth: I'm always in favor of a shortlist rather than three pages... people can actually only assimilate five to seven items. I would not add to it. I'm sure they've got good reasons for putting these . . . but this is fine.

Summary

The researcher collected data in the form of interviews and field notes and also references an appendix from the Project Management Book of Knowledge (PMBOK). Six participants began the study, and the analysis was reduced to five participants after confirming with each participant, at which point, one chose to drop out. Utilizing hand-coding methodology to review the participant's interviews, the results produced answers

to general demographic questions about her attainment of the Project Management Professional (PMP) certification as well as her participation in the Project Management Institute (PMI) chapter and number of years in her career with the certification. The phenomenological methodology allowed for emergence of several themes among the three categories of the roles of the project manager, communication as strategy, and the project management career. The themes in the category of the roles of the project manager were responsive leader, fellowship builder, safety net provider, peacekeeper, success coach, and certified expert. The themes in the category of communication as strategy were communication is control, communication is variety, communication motivates, and decision making communication. The themes in the category of the project management career were career evolution, employer support and self-motivation, variety of professional positions post-PMP certification, influence of Project Management Professional (PMP) certification, and Project Management Professional (PMP) requirement. After the review of these themes, there was a summary of the results that were not categorized, including the variety of professional positions the participants had held, the perceived influence of the PMP on their careers, and the PMP as a job requirement. The final section is an assessment of whether there were suggestions from the participants to assess whether or not the set of interpersonal skills was complete or if other words could be added to a future Project Management Book of Knowledge (PMBOK). Chapter Five will build upon these themes and will give a proposed solution and implementation of the solution, which will be propose a change to the PMBOK layout to draw more attention to these skills, as well as the implications for future research.

FIVE: CONCLUSIONS AND RECOMMENDATIONS

Introduction

Female project managers working in the information technology field often earn the Project Management Professional (PMP) certification from the Project Management Institute (PMI). This study has created new knowledge by studying female project managers who have the PMP and determined whether the certification was influential on their careers and the ways they chose to manage their projects. These female project managers were asked questions about how they interacted with their team members and how they portrayed influence when managing information technology projects. As a result of this study, three main themes emerged: Roles of Project Manager, Communication as Strategy, and Project Management Career. This study has opened opportunities for additional research in the project management profession as soft skills were becoming predominant in literature. PMI will need to understand that learning soft skills should be a priority for project managers.

Previous literature reported a variety of skills needed by project managers and some of the literature prioritized the order of the skills. El-Sabaa (2001) listed required skills in leadership, communication, and team building. Carbone and Gholston (2007) reported that these project management skills can be learned on the job (p. 10). When studying women, Maseko and Proches (2013) found leadership styles of women to be “transformational, democratic, and people-oriented” (p. 5663). Project communication was a priority skill and includes both the formal and information communications needed to facilitate project work (Verma, 1996, p. 15). Relationship management was an important skill and Flannes and Levin (2005) noted that it is inevitable that conflicts will

arise among stakeholders based on their unique perspectives (p. 85). Lastly, Dinsmore (1990) discussed the need for project managers to be successful coaches to continue to motivate the project team.

Purpose of the Study

The purpose of this phenomenological qualitative study was to explore the influence of the Project Management Professional (PMP) certification on the careers of PMP-certified female information technology project managers who were current members in the Project Management Institute chapter located in the mid-Atlantic region of the United States of America. This study focused on the interpersonal skills from the PMP certification.

Aim of the Study

The aim of this dissertation in practice was to determine the influence the Project Management Professional (PMP) project certification from the Project Management Institute based on evidence gathered from the qualitative study of Project Management Professional certified female project managers working in the information technology field.

Proposed Solution

The proposed solution to supporting the evidence of how the Project Management Professional (PMP) certification influences certified female project managers working in the information technology field was to bring focus on the appendix written about interpersonal skills, namely Appendix X3 Interpersonal Skills (PMBOK, 2013, p. 513). The focus can happen in several systematic steps by the Project Management Institute (PMI), the certifying body for the PMP certificate. The Project Management Book of

Knowledge (PMBOK) manual would have to be edited to bring the interpersonal skills from the back of the manual in an appendix to a formal project management chapter. The new chapter can be titled “Project Management Interpersonal Skills.” If the PMBOK would change in this way, then other updates to media would be needed, such as supporting manuals, textbooks, and web sites as well as training classes provided by Registered Education Providers certified by PMI.

The rationale for this solution came from the results of the qualitative interviews conducted to support this study. There is a need to place focus not only on technical project management processes, but on the daily human interactions of the project manager and the project team. The project manager needs to be aware of how she conducts herself in her project team interactions. Focusing on interpersonal skills is relevant across several professional positions, as the data noted the diverse names of positions held after earning the Project Management Professional (PMP) certification. Interpersonal skills are relevant to project and program managers, training or requirements managers, business analysts and applications development managers. Elevating this information out from the end of the manual and moving it into a new chapter that focuses on the process of becoming stronger in utilizing interpersonal skills gives these soft skills the value and attention they deserve.

Support for the Solution

Six themes from the three main thematic categories emerged from the data collected relating to the female information technology project manager with her Project Management Professional (PMP) certification. The following discussion ties together some of the observations of the project managers and the connections among their uses of

the roles of the project manager, the variety of strategies utilized to communicate, and the career pathways of the project management career. This set of emergent themes came to fruition after synthesizing data from the face-to-face interviews.

Roles of Project Manager:

1. Human interactions oriented to others
2. Promotion of nurturing kindness

Communication as Strategy:

1. Creative project information sharing
2. Energetic project planning

Project Management Career:

1. Cultivate lifelong learning
2. Passionate toward profession

Each of these themes was analyzed and is discussed in subsequent sections. Following the presentation of each theme will be a section emphasizing the contributions this study makes to current literature. After this analysis, there will be a recommendation for a proposed solution, the implementation of the proposed solution, and the proposed timeline for implementation and assessment. Furthermore, implications will be discussed in reference to future research and leadership theory and practice.

Human interactions oriented to others. The first frequently-shared theme to emerge from the qualitative data assessment was the outward focus on the other person when interacting with humans to complete project management tasks. This is a requirement to lead project teams successfully. Fisher (2011) studied female project

managers and found behaviors focused on others by leading, influencing, authenticity, and conflict management (p. 1000). Maseko and Proches (2013) found similar results when studying female project managers as they exhibited “people-oriented leadership styles” (p. 5663). In this study, Elizabeth interacted with others as a “responsive” manager. Dana led her teams by steering focus toward priorities, and Becky was perceived by others as someone who knew the answer or who would go find it if no one else could.

Promotion of nurturing kindness. The second theme in relation to the roles of the project manager was the nature of being a kind person when acting in the role of the project manager. An effective leader is one who can lead with kindness and a self-awareness of the positive impact that nurturing others can have on a project team. Verma (1996) discovered that motivation in a supportive project environment will provide fulfillment to project team members and create a general feeling of satisfaction and happiness (p. 55). Verma (1996) continued with a list of traits that functional managers desired in a project manager including being caring, encouraging, and positive (p. 213). Neuhauser (2007) reported two additional traits that were necessary to nurture kindness, and it was an approachable charisma and a personality that creates inspiration in others (p. 22).

In this study, the word and theme of kindness appeared in participants’ answers without specific prompting. For example, Caroline noted that she practiced kindness in giving “the person the benefit of the doubt” as a strategy to manage teams. Elizabeth chose to provide guidance, even though she considered herself as having a “strong personality” and aimed to be collaborative with team members. In a nurturing example,

Anne referenced the Golden Rule and treated her team members “like I would want to be treated.” Dana cared for her teams by giving emphasis to “anything positive” and acknowledged “positive accomplishments” to the entire team. Covey’s (2004) research supported Dana’s skill in the goal of getting to “win-win” with the team to assist in project goal achievement (p. 223, 224).

Creative project information sharing. The first theme related to the communication as strategy category was the variety of ways the project managers found different media to share project information. El-Sabaa (2001) listed communication as a necessary skill development for project managers (p. 1). Maseko and Proches (2013) studied female project managers and discovered a theme where women were more focused on communication (p. 5663). Verma (1997) added to this research by noting that open communication fosters team building, trust creation, and supports decision making (p. 116).

This research study showed how important communication is, since it was an overarching theme category and had four subcategories. Specifically, the participants shared how many ways project information can be shared with a variety of communication techniques. Becky shared a more casual type of communication and stated that she liked to “bounce off” ideas with others while working on communication drafts. Elizabeth inserted herself as a leader in communication design, whereas Anne shared that her certification made her sensitive to the overuse of acronyms within various professions that caused confusion. Caroline categorized communication as a “big thing” that has “a lot of moving parts” with her teams responsible for “drafting all of the written materials,” as Caroline determined the official message to send. Additionally, variety of

media was discussed by most participants. Becky listed face-to-face, email, and instant message. Caroline discussed the use of a formalized newsletter, computer screen share in real time, listserv messages to a group of subscribers, or text messaging with a cell phone being used by her and her team members to gather and to share information. Dana said that even if a communication started electronically, she was compelled to end it with personal interactions either on the telephone or by walking to the sender's office. Becky focused on bringing groups together into team meetings and made an effort to gather people together informally by scheduling lunches together.

Energetic project planning. Communication as a strategy illustrated the ways in which communication is used as a tool in providing support for the process of project planning. The first ingredient project planning needs is motivation of the project team. The Project Management Book of Knowledge intertwines project planning throughout the five process groups and names one process group formally "planning" (PMBOK, 2013, pp. 3, 5). Verma (1997) states that project managers have worked through decision-making throughout all project phases (p. 172). Decision-making is not always easy though, and project managers need to be comfortable making individual decisions, solicitation from team members, or creating a voting style for decision outcomes with the entire team (Verma, 1997, p. 173). Additionally, energetic project planning is also about sharing leadership with decision-making and collaboration, according to Stagnaro and Piotrowski (2014, p. 5). This type of leadership and decision-making model can lead to more understanding and positivity on the team (Stagnaro & Piotrowski, 2014, p. 8).

In this research study, communication was used as a motivator. Becky shared "positive communication" and sent thank-you notes to project team members, as well as

public praise. Dana also emphasized the positive with the goal of achieving a happier team because this provides balance and stability. Caroline chose honesty as a motivator. Motivation continues throughout the project process and naturally leads to being the foundation to make decisions. Dana used goal setting to achieve decision support and communicates about the goals. Elizabeth purposefully chose not to “make solo decisions” and consulted with peers to see what was in the market and to bring options to management. Becky leaned on communication to “weight two sides of the decisions” or sometimes she was led by her “gut” to come to a decision.

Cultivate lifelong learning. The first feature of the theme of the project management career is the cultivation of lifelong learning. Carbone and Gholston (2007) studied how project managers continue to develop skills by counting the number of graduate programs and project management certifications (p. 11). They found that skill development should continue in these competency areas: knowledge, performance, and personal (p. 10). The Project Management Institute (PMI) requires regular updates to continuing education to keep current the Project Management Professional (PMP) certificate. El-Sabaa (2001) summarized the need for a project manager to have cross-functional experience and basic understandings of processes and departments within the company (p. 6). Carbone and Gholston (2007) noted that project managers should continue to enhance their training while on the job (p. 10). El-Sabaa (2001) supported the goal of lifelong learning, as project managers should acquire a variety of professional skills as they work in their career paths (p. 6).

When asked about the certification usefulness in this research study, the participants all had achieved their Project Management Professional (PMP) certifications.

This was a requirement to participate in the research study. With each participant having earned the PMP, it showed to others a formalization of the potential skills they could draw upon to manage projects. Caroline shared that it was “good to have a certification to show what I am doing” and it has created an interest in job recruiters asking her to review job openings. Dana noted that it would be useful if she was looking for another position. Elizabeth shared a more take and leave approach where some “aspects that are more useful” are called upon in her work and other aspects are not. Though there was no formalized discussion of the PMP’s requirement to fulfill ongoing professional development units, or PDUs as they are commonly abbreviated, it is a requirement from the Project Management Institute to keep the certification current (PMI, 2013).

Passionate toward profession. The second theme from the project management career category is the ways in which a project manager portrays enthusiasm toward their job and the profession of project management. Benton (1999) encouraged project managers to continue self-promoting since project managers believe their work will be rewarded because it is good (p. 32). Reich and Sauer (2010) supported education and career development as necessary for the project manager and can be exhibited in enrolling in a degree program, participating in public speaking, and networking with coworkers (p. 129). In addition to formalized training and learning more about their companies, project managers can demonstrate passion toward their profession by practicing what they preach to their teams. Carbone and Gholston (2007) supported ongoing professional development, perhaps with ongoing mentoring and coaching relationships (p. 16).

Each participant in the research study was required to be members of the national Project Management Institute (PMI) and the local chapter. These two memberships demonstrate a commitment to the profession of project management by keeping the memberships current. Though not all participants agreed that the Project Management Professional (PMP) certificate was a requirement to manage projects successfully, there was a feeling that the PMP did provide a common language and cuts through disciplines to allow to speak this common language. In addition, the PMP certification was a requirement to enter this study as a participant. The PMP is an illustration of being a passionate project manager because it demonstrated the capacity to learn more about the profession. While not always a job requirement for the participants, Elizabeth shared that it was highly desired for a job position, and Anne thought if she had not earned the certificate, then she would not have qualified for two job positions. This continuous support to be involved in the project management profession is often supported by the employer. Anne shared that her manager asked her to earn the PMP as a performance goal and Becky's leadership "strongly encouraged" the PMP. Caroline said the encouragement came from her boss, and Elizabeth said it was a company-wide priority, wherein success equaled a paid one-time bonus.

Stakeholders Related to the Solution

The primary stakeholders related to the solution are the Project Management Institute (PMI), since they publish the Project Management Book of Knowledge (PMBOK), the accompanying editors of the PMBOK, current Project Management Professional (PMP) certified project managers wanting to learn more about the profession in the latest PMBOK, current project managers working to obtain the PMP certification,

and the Registered Education Providers who provide certification preparation classes and supporting materials. First, the PMI, as a whole, is the primary stakeholder since they have to review the changes to move the topic of interpersonal skills out of the appendix section and into a new chapter located in the main part of the PMBOK. Second, the accompanying editors of the PMBOK need to show a willingness and flexibility in reviewing proposed changes with an open mind and with guidance from the network of project managers who review the proposed changes as each edition is finalized. Third, current PMP certified project managers who want to learn more about interpersonal skills needed for project management, as suggested by PMI, would need to obtain the updated edition and read the new section. Fourth, if a current project manager is seeking the PMP certification, then the project manager will need to study the interpersonal skills since it would be listed in a chapter in the manual. This implies a potential change to the questions in the exam as well. The fifth primary stakeholder is the group of Registered Education Providers since they would need to update their training materials in support of a new focus on interpersonal skills.

Potential Barriers and Obstacles to Proposed Solution

The potential barrier and obstacle exists with the acceptance, or lack thereof, from Project Management Institute (PMI) in reviewing this proposed change and adding it to a future edition. Also, the researcher is unclear whether there already exists a clear path for proposing changes to the Project Management Book of Knowledge (PMBOK). The next edition that is set to be published is the sixth edition. There is a group of volunteers who worked on this edition and has reviewed and edited it, preparing for the publishing. It is

recommended that PMI make this process more transparent to its membership to provide a documented path for proposing changes or new recommendations.

Financial/Budget Issues Related to Proposed Solution

The potential financial and budget issues related to the proposed solution are unknown as it was not available information to determine how the Project Management Institute (PMI) coordinated ongoing payment for publishing updates to the Project Management Book of Knowledge (PMBOK). It is a manual that is free only to paying members of PMI, and it is tied to membership fees, which is one way to gain financial support for continuous edition changes. Also, there is a fee, in the hundreds of dollars approximately, to sign-up to take the Project Management Professional (PMP) exam. This is another way PMI earns money from its members and from those seeking the many certifications offered by PMI. If the updates to the PMBOK would prove to be financially burdensome, then perhaps the interpersonal skills can be developed on a smaller scale into its own certification manual with accompanying exam and certificate.

Implementation of the Proposed Solution

The implementation of the proposed solution is possible, but the timeline and the headcount to support it may not yet be evident. The timeline may take several years for implementation, depending upon how long the Project Management Institute (PMI) decides to review, update, and publish another numbered edition to the Project Management Book of Knowledge (PMBOK). PMI does not provide details on the web site, nor in other media communications, about whether or not the change needs to be petitioned with a headcount. It is possible to build a groundswell of support for this change by attending professional conferences hosted by PMI and related entities and

promoting the benefits to moving interpersonal skills from the appendix to a formalized chapter in the PMBOK. Even if the change goes through the PMBOK, there is still a need for time to update supporting materials in the classroom and in webinars and other information sharing media.

Evaluation and Timeline for Implementation and Assessment

The Project Management Institute (PMI) works through a regular pattern of updating the Project Management Book of Knowledge (PMBOK), but it is variable. The proposed solution, to edit the current PMBOK to change the interpersonal skills from an appendix to a chapter, could take years to work its way through the edition change process at PMI. Even if the PMBOK is not edited in the proposed way, it is possible to achieve greater focus on the interpersonal skills by having PMI support the publishing of additional materials that support the project manager's skill growth in this topic area.

The proposed change may have to wait since the Project Management Institute website (PMI) has a section for the Project Management Book of Knowledge (PMBOK) focused on the PMBOK Guide – Sixth Edition (PMI, 2017). This guide has updates that “reflects evolving knowledge within the profession” and it will address the “processes that project management experts agree are necessary for most projects in most environments” (PMI, 2017). This new edition is set to be published in the third quarter of 2017 (PMI, 2017). At this web page, there are names of the project chair for the sixth edition and a PMI employee who is the standards project specialist. In addition to the updated edition for the PMBOK, there are meetings throughout the year named “Standards Meetings” and these focused on specific guides, such as organizational project management or agile practices (PMI, 2017) The webpage has a referral to an

email address for a PMI employee to find out more information about the meetings (PMI, 2017).

Implications

Practical Implications

The practical implications of this study are that this Dissertation in Practice contributes to the greater good of the project management setting by bringing renewed focus to the human traits of all project managers. Specifically, the women interviewed were able to explain in detail the reason interpersonal skills are important in the work they complete as project managers. These skills deserve more focus, and it could make the Project Management Professional (PMP) certification more valuable if it also focused on interpersonal skills and not only project processes. The new insights gained from moving the interpersonal skills to a chapter, rather than an appendix, are several. First, project managers can gain an understanding of the additional skills needed to manage people on their project teams. Second, project managers can learn more about skills they may need to acquire and then exhibit in their project meetings and in interactions with their project teams. Third, project managers can appear well-rounded by understanding technical project processes at the same time as being highly aware of the interactions among the humans on their project teams.

Implications for Future Research

The implications for future research are available in many ways. First, a larger study could be conducted within the United States and outside of the United States. Cultural differences can influence the use of and impact to interpersonal skills. With this study, only female certified project managers were interviewed. It would be useful to

expand these interviews to male certified project managers and compare the differences, if any, in responses. It would be helpful to have a mixed methods study completed that incorporates survey instruments as well as qualitative interviews to blend the data together to make a case for or against moving the focus to interpersonal skills by bringing it out of the Project Management Book of Knowledge's appendix. Lastly, it would be helpful to add to the research a cross section of professions. Since project management spans across a variety of professions, it would be helpful to interview males or females who are or are not certified outside of the information technology field.

Additional future implications are possible at a larger scale. When focusing on organizational development, interpersonal skills become more than a list in an appendix of a certification manual. When studying human interactions in a human development context, the use of interpersonal skills and the necessity to have them developed among employees in an organization becomes critical for organizational successes in both large and small scales. Organizational development research can start a new tangent from this research where the study of interpersonal skills and emotional intelligence can intertwine into determining how successful organizational cultures cultivate and develop employees.

Implications for Leadership Theory and Practice

The findings of this study validate the need to focus on interpersonal skills as the leadership theory books and practice continue to focus on an area called “emotional intelligence” (Bradberry & Greaves, 2009). Bradberry and Greaves (2009) shared the four skills that make up emotional intelligence: self-awareness, self-management, social awareness, and relationship management (p. 24). The first two are about how people manage themselves, and the last two are about how a person interacts with others

(Bradberry & Greaves, 2009, p. 24). Bradberry and Greaves (2009) wrote a book that provides a skills assessment for these four competencies and provides four chapters, one chapter per skill, to discover ways that a person can cultivate awareness of emotions and how these emotions impact their daily life and work environment (Bradberry & Greaves, 2009). As early as 1995, emotional intelligence was being researched, and Goleman (1995) discussed a chapter about “Managing with Heart” at the workplace and provided coworkers with an “artful critique” by being specific, offering a solution, being present, and being sensitive (pp. 153-154). These studies should be considered when implementing the changes to interpersonal skills location in future editions of the Project Management Book of Knowledge (PMBOK). Research-based evidence exists to guide the next edition and support the proposed change to add the interpersonal skills list as an official chapter.

Summary of the Study

To identify the potential value of the Project Management Professional (PMP) certification from the Project Management Institute (PMI) has on the career of female certified project managers working in the information technology field, the researcher conducted six in-person interviews. After one participant dropped out, the researcher focused on the five remaining interviews. These participants were members of a local PMI chapter in the mid-Atlantic area. By analyzing the interviewees’ results, along with field notes and supporting documentation from PMI and the Project Management Book of Knowledge (PMBOK), the researcher identified how the PMP certification provides a foundation to utilize the interpersonal skills in managing projects in the information technology profession. The researcher chose to evaluate interpersonal skills to bring to

focus the necessary role these skills play in the daily life of the project manager. This research study will begin the journey to contact PMI to formally request an update to the PMBOK to move these skills from an appendix to a formalized chapter.

The study contributed to professional practice by beginning to shift the conversations and trainings from only process oriented chapters in the PMBOK to creating a new chapter of information to share the need for interpersonal skill development for all project managers earning the PMP certification. As a result of this study, the researcher recommends the continuation of this plan outside of this Dissertation in Practice timeline. The researcher commits to working with PMI to enact changes to the next edition, which is noted to be the seventh edition, and to achieve a focus on these skills in particular:

1. **Responsive Leadership:** Leadership must be responsive to each individual and each situation. Leadership demands flexibility in both the leader and the follower.
2. **Fellowship Building:** The project manager is in charge of the team and must fine tune interpersonal skills to achieve project goals with a sense of togetherness.
3. **Safety Net:** Without trust and transparency, there is no safety and the project manager is responsible for creating trust and supporting transparency by providing ways for the team to connect and to care about a shared reality of the project team.

4. **Peacekeeper:** Handling negotiations and conflict prepares a project manager to find ways to build peace and moves toward consensus, while being mindful of emphasizing the positive.
5. **Success Coach:** The project manager must develop patience with the project team and offer mentorship to team members while coaching toward successful project completion.
6. **Communication:** The project manager controls communication, choosing from a variety of media to support necessary team motivation and decision making.

The proposed solution, to add these skills and potentially others to the seventh edition of the PMBOK, will potentially take a few years to implement. With diligence and focus, however, it is possible to take these newly identified interpersonal skills as additions to the current list and moving the location to a formalized chapter. The evaluation plan will take several years, as well, but it is possible the years will provide an opportunity to build collaboration among the PMI community and its members. This study contributes to the greater good of the professional project management field by bringing needed focus from the strictly process-oriented practice of the project manager to the creative skills need to be a project manager focused on human interactions. Outside of the project management profession, this study contributed to a larger discussion about organizational development in relation to human interactions. Interpersonal skills, and their inherent potential to be developed, are uniquely human and can create organizational successes and failures. Emotional intelligence remains relevant for project management and for organizations, no matter the industry. Future researchers now have

the beginning of how to focus on the study of interpersonal skills and the way it shapes the project manager's abilities to enact successful project management.

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Appendix A

Interview Protocol: Female project managers in information technology with Project Management Professional certification from the Project Management Institute

Time of Interview:

Date:

Place: 4501 North Charles Street, Baltimore, MD 21210, 100 h Conference Room

Interviewer: Elena M. Bozylinski

Interviewee:

Brief Project Description:

This project is a study of female project managers in the information technology field who are certified as Project Management Professionals from the Project Management Institute (PMI) who are also members of the Baltimore Chapter of PMI. I am grateful to each participant I interview as this satisfies my degree's goals for writing a dissertation for my Educational Doctorate degree in Interdisciplinary Leadership from Creighton University in Omaha, Nebraska. Thank you for agreeing to be interviewed. I want to remind you that your comments will remain confidential and anonymous. There is a consent form to be signed. Please sign this form and I will retain it as part of my research. You may take a break at any time and you can ask any additional questions for clarification. This interview was recorded for future transcription. Do I have your permission to record? The data for this research was compiled and saved for five years from the date of the dissertation's publish date and a copy of the dissertation can be made available to you, if interested, for future reference.

Questions:

1. Please share these statistics about your Project Management Professional certification and Project Management Institute membership.
 - a. When did you achieve your Project Management Professional certification from the Project Management Institute? (Month/Year is sufficient)
 - b. How long have you been a member of the Project Management Institute's Baltimore chapter? (Year is sufficient)
 - c. How long approximately have you worked as an information technology project manager with your PMP certification? (choose from either 5 years or less and 5 years or more)
2. Describe the impact your PMP certification has had on your professional career.
 - a. Why did you decide to become a project manager?
 - b. Why did you pursue the PMP certification?
 - c. Describe the professional positions at your current or former employers that you have had since earning the PMP certification.
 - d. Reflecting back on these positions, how influential was the PMP certification on your attainment of these positions?
 - e. What is your opinion on whether the PMP is required to manage projects in a professional setting?
 - f. How valuable is the PMP certification to your career as a project manager in information technology?

The PMBOK, A Guide to the Project Management Body of Knowledge, is updated to version 5. In this edition, there is an appendix listing the necessary interpersonal skills for

project managers. I have categorized these skills into three groups and corresponding questions to these groups.

3. In reflecting on relating to others, these interpersonal skills are listed in the PMBOK's appendix: leadership, team building, influencing, and trust building.
 - a. How do you utilize these skills in relating to your project team members?
4. In reflecting on relating to self, these interpersonal skills are listed in the PMBOK's appendix: motivation, communication, decision making, and political/cultural awareness.
 - a. Describe how you call upon these skills in your daily work life as a project manager.
5. In reflecting on relating to human resources' interactions, these interpersonal skills are listed in the PMBOK's appendix: negotiation, conflict management, and coaching.
 - a. Describe how you have had to utilize these skills in relating to human resources management with your project teams.
6. Now that you have field experiences as a certified PMP, what would you add to the next version of the PMBOK's interpersonal skills list?

End of survey questions.