POSTULATION OF PROJECT MANAGEMENT OFFICE STRUCTURES IN REDUCING OPERATIONAL RISK OF FINANCIAL INSTITUTIONS

by

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ABSTRACT

This exploratory case study used a qualitative research method and explored how Project Management Offices (PMOs) and associated governance groups, such as project management, program management, portfolio management, and risk management, play an important role and are viewed as a positive contributing factor in the successful management of projects. The study also explored the perceived reduction of operational risk that would help prevent the likelihood of financial market collapse reoccurrences, and the perceived importance and impact of operational management structures of financial institutions in contributing to the prevention of another banking collapse. The following themes emerged in the study: Operational risk, regulatory groups, characteristics of PMO structures, optimal PMO structures, PMO effectiveness, and maturity levels of PMOs. A postulation to integrate PMO structures and associated governance groups in the accords (frameworks) of the Basel Committee on Banking Supervision (BCBS) was proposed to help financial institutions reduce operational risks that affect consumers of financial services. A non-traditional survey-based case study was conducted with eight project management professionals with financial industry experience in the United States. The case study helped reveal that financial collapses were significantly related to the lack of PMO structures and integration of those structures into regulatory frameworks as mandates. This case study further found that to reduce the likelihood of another financial collapse, a change needs to be made to organizational structures by (a) implementing well-run PMOs and associated governance groups, and (b) integrating those structures into regulatory frameworks.

DEDICATION

I dedicate this dissertation to God who accompanied me during my dissertation journey. I also dedicate this dissertation to Fidela Pomader, my mom, and my sister, Dr. Susana Arguello, who encouraged me throughout the dissertation journey – while I endured the challenges of raising teenagers, demanding jobs, and a turbulent economy.

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Chapter 1

Introduction

Financial institutions (also referred to as financial organizations in this dissertation) in the United States, of all sizes and types, strive to achieve their strategic goals and objectives through the execution of projects. The Project Management Institute (PMI)® – a project management standards organization recognized by the International Standards Organization (ISO) and the American National Standards Institute (ANSI) – described a project as ". . . a temporary endeavor undertaken to create a unique product, service, or result" (Project Management Institute [PMI], 2008, p. 5). The global market economy created opportunities for new and revised standards, including stringent regulatory acts and groups. The creation of new and revised project management standards, Project Management Offices (PMOs), and associated governance groups (such as project management, program management, portfolio management, and risk management) – pertinent to deal with the inherent complexities and risks associated with executing and implementing projects – became the norm in project management organizations.

Juran (2010) conveyed the importance of quality when creating products and services. Juran indicated that consumers pay higher fees as a result of poor quality products and services. Likewise, when projects (and their inherent risks) do not use project management standards and associated governance groups to manage risk and quality, consumers of financial services may also incur the resulting losses in higher fees for requested products and services. Factors that contribute to operational risks exist in every organization; one factor affecting the operations of financial institutions was the perceived lack of PMOs and project management governance groups to initiate, plan, execute, monitor, control and close projects.

PMI ". . . is the world's leading not-for-profit membership association for the project management profession, with more than half a million members and credential holders in 185 countries" (Project Management Institute [PMI], 2011, para. 1). The global demand for project management skills, standards, and certifications signaled and conveyed the need to have established PMOs, associated governance groups, and project management disciplines (standards) to manage projects and their unavoidable risks. Projects implemented without consistent project management standards, PMOs, and associated governance groups, were perceived as the contributing causes of operational risks in financial institutions that influence financial collapse situations. For example, PMOs and associated governance groups (collectively referred to as *PMO structures* in this exploratory case study) were perceived to help identify and reduce high product costs and elevated service fees connected or linked with operational risk issues. A project management radar system that is part of a regulatory framework (discussed and proposed in this exploratory case study) was proposed to better screen operational activities and corporate scandals of financial institutions.

Operational risks affect business operations, and consumers may pay high product costs and service fees in connection with operational risk issues. To stay in business, financial institutions would need to be proactive in complying with regulatory agencies and in avoiding bankruptcy proceedings that may also affect product costs and fees. According to Finke, Singh, and Rachev (2010), "The topic of operational risk is central to the financial industry due to the immediate and very direct impact of the bankruptcy of a financial institution on the economy and businesses" (p. 66). Centralized project management governance and associated governance groups were perceived to be enablers for regulatory compliance and bankruptcy avoidance.

Chapter 1 contained a background of financial institutions' operational risks and the direct impact on banking collapses. A discussion of the problem statement and purpose of the study followed by examining how financial institutions in the United States without PMO structures to manage their project operations may have generated various levels of operational risk. The exploratory case study also focused on exploring how financial institutions with unregulated PMO structures (without a regulatory mandate to enforce PMO structures) may have generated various levels of operational risk. The research contributed to and had significance to management and leadership, in particular to the project management community and to organizational leaders of financial institutions in supporting and embracing the implementation of PMOs and project management governance groups as part of their operational structures. Chapter 1 also included the nature of the study, research questions, scope and limitations (including delimitations) of the study, theoretical framework, assumptions, definition of terms, and a chapter summary.

Background

The primary focus of conventional risk management initiatives is on credit and market risks with less emphasis on operational risks (Dey, 2009). Operational risks of financial institutions affect relevant consumers and shareholders who may be incurring high product costs and other service fees in compensation for operational risk losses. Operational risks may be in need of modern methods of management, such as PMO structures. The United States' historical banking collapse of 2007-2009, ". . . widely viewed as the worst financial disruption since the Great Depression of 1929-33" (Wheelock, 2010, p. 89) – an indicator that the lack of project management controls and accountability, and PMO structures in financial institutions – contain

ripple-effect (series of consequences or repercussions) elements of financial collapses of the past, and perhaps new ones to surface.

Drumond (2009) indicated that "The rationale for any regulation is usually associated with market failures, such as externalities, market power or asymmetric information" (p. 808). The Basel Committee on Banking Supervision (BCBS), discussed in the literature review chapter of this dissertation, established frameworks (i.e., Basel I, II, III) for the financial industry to assess and measure operational risk. The development of the frameworks were necessary steps in the reduction of operational risk, nationally and internationally, through the establishment of different risk measures that would determine capital requirements (capital reserves) financial institutions must maintain to stay in business legally within the established accords.

Obstfeld, Shambaugh, and Taylor (2009) concluded that international reserves are important and valuable in times of financial need and argued that ". . . reserve holdings are strongly connected to the size of the banking system" (p. 486). If another banking collapse would occur, financial institutions worldwide must ensure sufficient levels of controlled risk and maintain proportional sustainability (the amount of capital held in proportion to the riskiness of the banks' assets) through established BCBS accords. The established accords provide complex quantitative and qualitative risk criteria and capital fund requirements (capital reserves) for financial institutions worldwide to follow. The accords do not have project management structures such as PMOs and associated governance groups for operational risk management of financial institutions that may help prevent a financial collapse.

Forced sustainability through capital requirement increases, during bad times or market fluctuations (pro-cyclical), may force banks to reduce needed lending to borrowers, causing spiral downturns. In researching the literature on bank capital requirements, Drumond (2009)

affirmed what other financial and economic experts conveyed, ". . . the introduction of bank capital requirements, for market or regulatory reasons, amplifies the effects of monetary and other exogenous shocks" (p. 799). In a study of the financial panic of 2008, Obstfeld, Shambaugh, and Taylor (2009) conveyed how ". . . the group of emerging-market countries increased its holdings of liquid foreign exchange reserves, both in dollar terms and relative to domestic incomes" (p. 480), and reported how bank reserves negatively interact with the depreciation of external currency. Financial organizations that do have PMO structures but are still not subject to regulatory oversight that would specifically require a) reporting of operational structures (e.g., a well-structured PMO and associated governance groups to reduce operational risk), and b) reporting of projects linked to operational risk – may also generate high levels of risk.

Problem Statement

As indicated by Dey (2009), conventional risk management practices address business risks (market and credit risk) with less emphasis on operational risk. A general problem statement is that operational risk (a common risk type aside from market and credit risks) if not well managed could affect businesses in negative and surprising ways, such as the financial meltdown of 2007-2009. Organizations of various business concentrations attempt to address operational risks using different models and methods. For example, Vinnem, Seljelid, Haugen, Sklet, and Aven (2009) discussed an offshore installation model for operational risk analysis based on the use of event trees, fault trees, influence diagrams, and risk-influencing factors in an attempt to analyze operational barriers to prevent hydrocarbon leaks.

Financial institutions also address operational risk using specific qualitative and quantitative models and methods, and mandated capital reserves but without regulatory

frameworks that would support PMO structures. Value-at-risk (VaR) is a standard measure of operational risk capital financial institutions use to help generate risk exposure based on historical losses (Cernauskas & Tarantino, 2009). The qualitative and quantitative models – and the mandated capital reserves financial institutions must maintain (Drumond, 2009) – are requirements of regulatory groups such as the BCBS created to demonstrate that financial businesses are capable of staying in business in the event of a banking collapse. PMO structures are also essential components to managing and monitoring projects and operational risk.

Specific problem. The specific and perceived problem addressed in this exploratory case study is that financial institutions in the United States without Project Management Offices (PMOs) and associated governance groups (such as project management, program management, portfolio management, and risk management) may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. The specific problem addressed in this exploratory case study also combined the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk. Qualitative data patterns were collected from professionals with project management and financial industry experience to address the specific problem.

Anticipated result and recommendation. The anticipated result of the exploratory case study was (a) to demonstrate the effectiveness of PMO structures in executing and monitoring

projects that would help reduce operational risk, and (b) to postulate to the BCBS to include such structures in its Basel frameworks for financial institutions to adopt as a compliance requirement to stay in business. Organizational leaders of financial institutions may (as a result) support the implementation of PMOs structures as part of their operational frameworks in helping better manage operational risk associated with financial collapses. Organizational leaders may also influence (positively) interest and other financial fees affecting consumers and shareholders in general. An anticipated recommendation of this exploratory case study was for the BCBS to mandate that financial institutions maintain PMO structures to comply with the accords of the committee. Future considerations for such adoption by the BCBS will be the primary suggestion in this exploratory case study.

Purpose Statement

The purpose of this exploratory case study was to explore and describe how financial institutions in the United States without PMO structures to manage their project operations may be generating various levels of operational risks. The purpose of this exploratory case study also focused on exploring how financial institutions with unregulated PMO structures (without a regulatory mandate to enforce PMO structures) may be generating various levels of operational risk. The exploratory case study helped explore whether or not the BCBS regulatory frameworks without a modified pillar for properly structured PMO structures and relevant metrics to measure the effectiveness of projects and structures may be contributing factors of another banking collapse because of the perceived impact on operational risk. The postulation of PMO structures for BCBS' integration in its accords may help financial institutions reduce operational risk. This exploratory case study also helped create awareness to financial institutions about how operational risk may impact consumers and shareholders of financial services when regulated

PMOs structures are not part of organizations' structures, and it also helped generate operational accountability to create training programs to support those structures.

Significance of the Study

Newstrom (2002) indicated ". . . leadership practices must change to match the new conditions. These fast-moving developments have given new emphasis to leadership ability" (p. 5). This exploratory case study provided a better understanding of the perceived problem to leaders of financial institutions so that they may change traditional ways of doing business. Leaders of financial institutions should not only consider market and credit risks but also operational risks that may be affecting consumers of financial services who pay interest and fees. The exploratory case study would also help leaders of financial institutions consider the benefits of establishing PMO structures for the perceived reduction of operational risks to improve business operations that eventually may (a) benefit consumers of financial services in the reduction of interest and other related fees, and (b) benefit shareholders in creating value for their investments.

General and specific significance. A general significance of this exploratory case study was for regulatory leaders to also consider modifying BCBS frameworks by integrating PMO structures to their existing and new accord rules. A specific significance of this exploratory case study to reduce operational risk was the implementation of regulated PMO structures. Effective PMO structures (a) allow greater corroboration and collaboration among corresponding members so that early warning indicators are more prevalent and easier to manage; (b) provide for greater efficiency in decision-making; (c) provide more reasons and better rationale in reaching decisions during periods of high volatility; and, (d) can be more agile and faster to change in this evolving world or exponentially expanding e-commerce and make detecting the potential for

another meltdown even more acute. Without regulated PMO structures, the implementation of regulatory mandates and organizational endeavors may not achieve desired outcomes.

Nature of the Study

A qualitative research method was used because the problem requiring investigation was related to a central phenomenon (contributing factors of banking collapses) or theme (Creswell, 2008; Yin, 2009) requiring exploration and understanding. This qualitative research method conveyed an exploratory need to find out about perceived operational risk in financial institutions leading to another financial collapse that would require additional research. When a study requires additional research, exploratory designs are appropriate (Stebbins, 2001).

The intent of the exploratory case study was to gather perspectives from Project Management Institute Westchester (PMIW) member professionals with financial industry experience about the phenomenon, as Yin (2009) conveyed, to explore and understand the research. A quantitative research method was not used because closed-ended questions alone would not have provided the necessary answers to understand the phenomenon. A qualitative research method with open-ended questions was appropriate for this exploratory case study because the themes generated helped to understand the phenomenon, according to Patton (2002) and Eisenhardt and Graebner (2007) regarding case studies.

This qualitative study used an exploratory case study design using a non-traditional online survey collection technique to gather data from professionals with project management and financial industry experience, as well as documents from PMI project management journals to support and triangulate the case – applying inductive reasoning composed of empirical details, and then moving toward general principles (Neuman, 2006) for the exploratory case study. The design was appropriate because limited research about the reasons for the financial collapse was

available and the perceptions about what caused it were not clear or concise, which differed from other studies where data was readily available. Veisz, Mamouz, Joshi, and Summers (2012) also conducted a non-traditional exploratory case study (that traditional research methods applicable to the tools he used could not have measured), combining interviews with industry users and academic instructors to align the observations of the study. McCullough (2013) also conducted an exploratory case study (qualitative) using an online survey with open-ended questions.

The choice of an online survey for this exploratory case study resulted in response to strict compliance policies at financial institutions, which restrict their work force from participating in one-on-one interviews that are purposely chosen for the study – even when identity disclosure is assured to be kept confidential. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the questions were not designed to ask for confidential information about specific companies. This exploratory case study explored and described the perceived problem that financial institutions in the United States without PMO structures may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. The study also helped explore and describe the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk.

Research Questions

A synthesis conducted by Drumond (2009) on bank capital requirements, the business cycle fluctuations, and the Basel accords implied that new regulatory structures did not reduce risk levels and uncertainty to help lessen the perceived likelihood of another banking collapse. The BCBS frameworks are one example of regulatory structures that introduced new capital reserve mandates several times without success (Basel I of 1988, Basel II of 2004, and Basel III of 2013). BCBS mandates capital requirements in its accords to help reduce cash flow defaults of financial institutions, but the accords do not provide provisions for operational project management structures that may help manage the implementation of the accords and of projects of every type.

A central research question (followed by a subset of questions) defined the proposed theoretical framework of this exploratory case study. The research question also helped explore whether or not the BCBS regulatory frameworks without a modified *pillar* for properly structured PMO structures (unit of analysis) and relevant metrics to measure the effectiveness of projects and structures may be contributing factors of another banking collapse (real-life phenomenon) because of the perceived impact on operational risk (proposition). R (for research question) and S (for subset research question) letters identified the following central and subset research questions, respectively.

R1: How do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) generate various levels of operational risk? R1.1: What is the perceived impact of integrating PMO structures in the BCBS Basel framework in reducing operational risk?

S1: What are the characteristics of PMO structures that may have perceived influence on operational risk? S1.1: What factors need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions? S1.2: What criteria can be used to measure PMO effectiveness? S1.3: What are the maturity levels of PMOs?

Scope, Limitations, and Delimitations of Study

This section includes the scope of the study. One-on-one interviews limitations and the delimitating plans are also provided in this section. The availability of documents and research bias limitations are the rest of the limitations with corresponding delimitating plans.

Scope. The scope of this exploratory case study was about exploring and describing how do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) may be perceived as generating various levels of operational risk that contribute to the likelihood of another banking collapse. The study explored and described characteristics of PMO structures that may have perceived influence on operational risk. The study also included factors to postulate an optimal PMO structure, criteria to measure PMO effectiveness, and maturity levels of PMOs – that altogether may help reduce perceived operational risk of financial institutions.

Limitation and delimitation: one-on-one interviews. A limitation of the exploratory case study design was in the traditional use of one-on-one interviews; strict compliance policies prevented financial institutional leaders with project management experience to participate in one-on-one interviews. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the

questions were not designed to ask for confidential information about specific companies. To overcome such limitation, members of the Project Management Institute Westchester (PMIW) were selected because they did have project management with financial industry experience, which would be validated through close-ended questions incorporated in a non-traditional online survey for qualitative research. After validation, PMIW members represented the sample exploratory case study for financial organizations within the United States financial industry because participants did have two or more years of project management experience, five or more years of financial industry experience, and located in the 48 contiguous states of the United States of America.

Limitation and delimitation: availability of documents. Another limitation of the exploratory case study was in the availability of documents in finding studies that sought to explore properly structured PMO structures and relevant metrics to measure the effectiveness of projects and structures that may be contributing factors of another banking collapse because of the perceived impact on operational risk. This limitation was overcome by using PMI journals that focused on project management, PMO structures, and related or relevant topics on banking collapses. The researcher was a PMI member and membership allowed for the retrieval of such documents.

Limitation and delimitation: researcher bias. Researcher bias was a final limitation in analyzing the results. The researcher possessed over 10 years of project management and financial industry experience. Researcher bias was overcome with the use of a sophisticated analytical software program (NVivo) for qualitative data analysis, and two bachelor of science students to analyze and categorize the assigned codes of data to avoid issues with misinterpreting or miscoding the participants' responses; researcher bias was also overcome with the use of a

survey software program (SurveyMonkey) to count the number of responses received and comparing to the total number of members in the PMIW membership. Researcher bias was also overcome with the use of a bracketing interview for qualitative research supported by Tufford and Newman (2012) to uncover biases or preconceptions (Rolls & Relf, 2006); the bracketed interview was done informally with a pilot group of professionals outside the online survey to help the researcher uncover biases and avoid preconceptions about the results.

Theoretical Framework

The theoretical framework in this study is that financial institutions may reduce the impact of operational risk with the implementation of PMO structures through inclusion of those structures in the BCBS regulatory frameworks. The inclusion of PMO structures in the Basel framework of the BCBS may allow financial institutions to reduce levels of operational risk to help lessen the perceived likelihood of another banking collapse. Project management disciplines promoted by standards organizations (PMI, for example) and companies from various industries (Wang, 2011) engaged in implementing projects of different types and sizes, already support PMOs and governance groups in helping manage projects to reduce operational risk. Financial institutions may also improve the bottom line of their investments, while reducing fees for services and products charged to consumers, because consumers would be willing to do business with companies that would a) charge lower fees as a result of robust operations, b) manage people, systems, and processes using industry standards, c) follow regulatory mandates that address operational risk, and d) maintain reduced levels of risk.

Assumptions

One assumption was that leaders who work in financial organizations without PMO structures will influence the business to create those structures. Leaders will influence financial

organizations to create those structures if PMOs prove to reduce operational risk at the end of this exploratory case study. Leaders would then use the findings and recommendations in this exploratory case study as a business case to justify the creation of those structures.

Another assumption was that BCBS will agree to integrate PMO structures in its Basel frameworks for financial institutions to add to their operational structures. If other components of business risk (such as market and credit risk) remain stable and consistent while measuring the consequences of operational risk, financial institutions may reduce operational risk when mandated regulatory frameworks that include PMO structures become part of their operations. Financial organizations may benefit in using PMO structures if revisions of BCBS Basel rules do occur because of accountability results created through metrics and measures of performance.

As a leader who has worked at various financial organizations, I made the assumption that other leaders would also influence the creation of PMO structures. In my work experience, I found PMOs to be essential in the managing and reduction of operational risk. I also assumed that BCBS would agree in integrating PMO structures in its Basel frameworks to improve regulatory oversight by mandating the reporting of operational structures and of projects linked to operational risk. After working in financial institutions for several years and experiencing the need for PMO structures, I assumed that the integration of these structures would only benefit financial organizations and consumers of services.

Definition of Terms

This section presented the terms used throughout this dissertation. The terms helped support the exploratory case study by providing additional definitions of the concepts. The description of the terms also helped in understanding the concepts used in this exploratory case study.

Bank of International Settlements (BIS). The 2007 BIS archive guide provided a background about BIS. "The Bank for International Settlements (BIS) was established in 1930, and has its office in Basel, Switzerland. The BIS is an international organization which fosters international monetary and financial cooperation and serves as a bank of central banks" (Bank for International Settlements [BIS], 2007, p. 1). Drigă (2007) defined BIS as ". . . an international organisation [sic] which aims at promoting monetary and financial stability, acts as a forum for discussion and cooperation among central banks and the financial community and acts as a bank to central banks and international organizations" (p. 129).

The BIS has several committees: Markets Committee, Committee on the Global Financial System, and the Basel Committee on Banking Supervision created in 1974. In 1999, the BIS and Basel Committee on Banking Supervision created the Financial Stability Institute, ". . . in order to promote financial stability worldwide, primarily by strengthening financial section supervision" (BIS, 2007, p. 2). This guide further explained the BIS' purpose as follows:

> The Bank fulfils this mandate by acting as: a forum for discussion and decision-making among central banks and within the international financial and supervisory community; a centre for economic and monetary research; a prime counterparty for central banks in their financial transactions; and agent or trustee in connection with international financial operations. (BIS, 2007, p. 1)

Basel Committee on Banking Supervision. The Basel Committee on Banking Supervision, established in 1974, paved the way to the globalization of financial markets. The committee is also known as BCBS. Drigă (2007) defined BCBS as ". . . a forum for regular cooperation on banking supervision matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. It seeks to do so

by exchanging information on national supervisory issues, approaches, and techniques, with a view to promoting common understanding" (p. 130). BIS described the committee as follows:

> The globalization of financial markets and the highly publicised [sic] failure of a number of international banks in the wake of the 1973 crisis led to the establishment of what would later become the Basel Committee on Banking Supervision to study the prudential aspects of international banking [1974]. (BIS, 2007, p. 4)

Basel Capital Accord and Basel II. The Basel Capital Accord is part of the BIS' efforts, created in 1988 for ". . . recommending a risk-weighted capital ratio for internationally active banks" (BIS, 2007, p. 4). In 1997, the BIS G10 group began an effort to review and update the Basel Capital Accord for a new capital measurement and capital standards framework named Basel II. Drigă (2007) defined Basel II as ". . . a comprehensive measure and minimum standard of capital adequacy that national supervisory authorities are implementing through domestic rule-making and adoption procedures" (p. 130). Later on, the Basel III effort complemented the Basel II effort.

Basel III. The Basel III accord committee proposes new capital, leverage and liquidity standards from its previous accord, Basel II, to help strengthen the banking sector with improved regulations, supervision, and risk management practices. Keefe and Pfleiderer (2012) conveyed a new definition for Basel III for regulatory capital; that is ". . . a new, more stringent definition of capital" (p. 409) that would impact banks and may have possible macroeconomic effects. The standard on liquidity, known as the *liquidity coverage ratio (LCR)*, focuses on liquidity of international banks so that they can withstand a financial crisis resulting from a funding crunch. To comply with the LCR, banks must maintain *easy-to-sell* assets to endure a 30-day run on their funding. The LCR will take effect in 2015.

Capital reserves. Capital reserves are monetary reserves imposed by the Basel Capital Accord for financial institutions to comply with the Basel Capital accord (Basel, 2011). Capital reserves help financial institutions withstand a financial collapse. Capital reserves differ according to the accord in use and the regulators of each country.

Derivative(s). Culp (2010) explained an over-the-counter derivatives (a common type) as ". . . bilateral, privately negotiated contracts that derive their value from some underlying commodity or asset price, reference rate, or index" (p. 105). Common types of derivatives are futures contracts, forward contracts, options and swaps. Financial institutions use derivatives as financial instruments to do business.

Dodd-Frank. President of the United States, Barack Obama, signed the Dodd-Frank Act into law on July 21, 2010. According to the Wall Street Reform Act (U.S. Treasury, 2011) named Dodd-Frank, the financial crisis of 2007-2008 left many individuals without jobs, with household debts, and lack of confidence in the financial system. The Dodd-Frank Wall Street Reform and Consumer Protection Act ". . . addresses key gaps and weaknesses in the system to help make future financial shocks less likely and less damaging" (para 1.). Further, the reform indicated that this act is critical ". . . because investors need confidence in the underlying safety, stability, and integrity of the financial system if they are going to put their capital to work financing new products, new businesses, and new jobs" (para. 1).

Exchange traded funds (ETFs). Financial institutions use ETFs as financial instruments to do business. Culp (2010) explains the difference between over-the-counter derivatives and exchanged traded funds derivatives as follows:

> OTC derivatives (e.g., interest rate and credit default swaps) are regarded as contracts negotiated privately outside of a traditional organized exchange, whereas exchange-

traded derivatives (e.g., futures and options on futures) are, as their name suggests, listed by and traded on a centralized exchange (p. 104)

Futures. According to Culp (2010) futures are a type of over-the-counter derivatives. Financial institutions use futures as financial instruments to do business. Futures can be part of financial institutions portfolios.

Group 10 (G10). The BIS Group of 10 consists of 10 central bank governors created to discuss and coordinate international monetary policy. The G10 members of this forum are Belgium, Canada, France Germany, Italy, Japan, the Netherland, Sweden, Switzerland, the United Kingdom, and the United States (BIS, 2007 archive guide). Coordination of international monetary policy is of importance to a globalized financial market.

Hedge. Selfish hedging practices that benefitted financial institutions were among the causes of the 2007-2009 financial collapse. Financial institutions use *hedging* to reduce the risk of an asset. A swap is a type of hedge instrument used to reduce risk (Culp, 2010). The swap activity exchanges or swaps the risk of an asset for another financial instrument of lesser value.

Project management standards. Few project management standards exist in the project management environment. Common project management standards, as of this writing, are PMI, PRINCE2, Agile, and Scrum. Organizations may use more than one standard in their project management environments to execute projects. According to Crawford and Pollack (2008), "By far the most popular standards in Project Management are those which focus on projects, the most popular of which have been developed by industry consortia" (p. 74).

Project Management Office. A Project Management Office or PMO is a concept that has a tangible identification in helping manage projects. The Project Management Institute defines a PMO as follows: "A project management office (PMO) is a management structure that

standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. The responsibilities of a PMO can range from providing project management support functions to actually being responsible for the direct management of one or more projects" (Project Management Institute [PMI], 2013, p. 11).

Project Management Institute Westchester. The Project Management Institute Westchester (PMIW) chapter is a program within the Project Management Institute, which serves the local area of Westchester County, New York. PMIW offers several project management services (e.g., training and seminars) to the local community. The chapter's mission is to:

> provide a forum for the purpose of the sharing and exchange of project management principles, techniques, practices, and information, to promote the use of project management principles and techniques within local businesses, government, universities and other entities, and to facilitate education in the field of project management. (Project Management Institute Westchester [PMIW], 2011, para. 2)

Ringfencing. Regulatory groups contemplate ringfencing as a way to separate business units from large financial organizations that would generate high levels of risk to investors, consumers, and clients. Ringfencing helps project consumers and investors. Ringfencing is a regulatory strategy to help reduce the risk of interconnected large-scale organizations. Ghosh and Patnaik (2012) analyzed shortcomings and possible impact of the Vickers Report (Independent Banking Commission Report) that required additional capital buffer to ring-fence retail transactions of financial institutions and universal banks doing business in the United Kingdom.

Subprime meltdown. People with poor credit records receive low-grade loans (subprime); combined low-grade loans were sold to investors (or secondary lenders) who received high payouts for the risk in these types of investments. When interest rates climbed up, borrowers could not pay their loans and a subprime meltdown started, causing ripple effects of distress to the financial market. The subprime meltdown caused major problems during the years 2007 through 2009. Semmler and Young (2010) described the recent financial meltdown as a series of events that began with the decline of the United States sub-prime market; that is, ". . . the current financial market crisis originated in low interest rates, rapidly rising household debt, and a bubble in the housing market [high housing prices compared to fundamentals]" (p. 333). In a study about the relationship between neighborhood subprime lending and the performance of community reinvestment mortgages, Ding, Quercia, and Ratcliffe (2010) concluded "The subprime crisis has significant consequences on the entire housing market and the overall economy" (p. 371), creating a subprime meltdown.

Subprime loans. Subprime lending caused major problems during the years 2007 and 2009 because of high interest rates of subprime loans versus traditional loans. Insolvent borrowers could make subprime loans to pay off loans that carried higher interests rates. Semmler and Young (2010) associated the sub-prime market meltdown with the increase of subprime loans as contributing factors to the financial collapse.

Chapter Summary

This dissertation contained the exploration of PMOs and associated governance groups (collectively referred to as PMO structures in several areas of this exploratory case study) in the reduction of operational risk of financial institutions. This exploratory case study proposed to the BCBS to include PMO structures in its frameworks as a mandate for financial institutions to

follow to comply with the accords. Chapter 2 included a literature review of operational risks that may be causing high financial product costs and services fees and influencing financial collapses. Chapter 2 included an exploration of the impact of PMOs structures on financial institutions' operations and explored common practices of financial and regulatory organizations to reduce operational risk. Chapter 3 provided the research method of the exploratory case study, which included sampling, informed consent, confidentiality agreements, geographic location, data collection, instrumentation, reliability of the data, and data analysis.

Chapter 2

Literature Review

Financial institutions without well structured Project Management Offices (PMOs) and associated governance groups such as project management, program management, portfolio management, and risk management (collectively referred to as PMO structures in this exploratory case study) could be experiencing high levels of operational risks affecting consumers of financial services, shareholders, and investors. Financial institutions without well structured PMOs are perceived to be experiencing high levels of operational risk and contributing to financial collapse situations, elevated banking fees, and corporate scandals. The integration of PMO structures in the frameworks of financial industry regulators may help reduce operational risk.

Financial collapses and turmoil in the financial industry such as rogue and fraudulent trading, lapses in banks' internal controls, restoration of financial markets' confidence, credit rating downgrades, unauthorized trading positions (fake hedging positions) of exchange traded funds, demands for active management in financial organizations, uses of *ringfencing* strategies, and regulatory frameworks with corresponding risk management policies and procedures are few examples of *turbulent waves* financial markets experienced since the financial collapse of 2007-2009. Moore (2013) provided five periods of market crashes and turmoil, which included the 2002 Sarbanes-Oxley Act mandate that served to improve corporate governance through enhanced financial reports. Moore conveyed the necessity to understand what went wrong in market crashes and indicated that

> To simply blame everything on fraud and greed without taking into consideration how society unrealistically responded to the stunning new technologies that exploded on the

cultural scene during the 1990s is to take an overly narrow and legalistic view of what happened and leaves us vulnerable to repeat these same mistakes in the future as the discoveries of the last decade are but a harbinger and the tip of the iceberg of scientific and technological developments to come. (p. 69)

The world financial economy experienced the effects of the financial collapse in a *trickle* effect manner. Events that occurred during the financial collapse included the demise of Lehman Brothers in 2008, the purchase of Bear Stearns in 2008 by JPMorgan Chase, among other cases of financial turmoil. Wellink (2010), Chairman of the BCBS, listed seven events that occurred during the financial collapse as follows:

- Lehman Brothers declared bankruptcy,
- the other large US investment banks converted to bank holding companies,
- Fannie Mae and Freddie Mac were nationalised [sic],
- AIG was brought back from the brink of collapse,
- Fortis, the financial conglomerate, was broken up and sold,
- Iceland's largest commercial bank – and subsequently the banking system – collapsed, and
- many countries had to step in to provide massive support to their banks. (para. 3)

Strict regulatory measures, strategies, and compliance rules (such as the ones implemented in the Dodd-Frank Act introduced in 2009 as a response to the financial crisis and signed into law in July 21, 2010 by the President of the United States, Barrack Obama) are essential to control national and global financial markets, and the financial organizations that they engulf. PMOs and associated governance groups are also essential to operate at the core of all initiatives' infrastructures for successful implementations. In the case of ringfencing, a

strategy to separate a regulated business from its non-regulated parent company, Kay (2011) indicated that ". . . effective ringfencing depends on effective implementation of its detail" (p. 9). Ringfencing and other financial strategies depend very much on effective implementations of PMO structures because for every strategy, a project is undertaken to ". . . create a product, service, or result" (Project Management Institute [PMI], 2008, p. 204).

Chapter 2 of this dissertation provided a literature review of operational risks affecting financial institutions and a brief history of the financial collapse of 2007-2009. Chapter 2 also provided the impact PMOs have on financial institutions, and current practices of financial and regulatory organizations to reduce operational risks. The chapter provided historical and current findings of the research topic.

Operational Risk Management

This section of the literature review started with operational risk because it is a topic of concern and importance to financial and regulatory organizations. New stipulations and theories emerged about the causes of operational risk after the financial collapse of 2007-2009. Jobst (2007) indicated that "Given the increased size and complexity of the banking industry, operational risk amplifies system-wide risk levels and has a greater potential to transpire in more harmful ways than many other sources of risk" (p. 317). Furthermore, Jobst claimed "Empirical evidence suggests that operational risk losses seem to have a high impact in transaction processing (clearing and settlement) as well as payments-system- and trading-related activities" (p. 339). Financial institutions face operational risks as a result of several contributing factors that should be the focus of investigation and management, individually and collectively.

The absence of PMO structures may cause or exacerbate operational risk. An investigation of operational risk levels of financial institutions that have established PMOs and

associated operational or governance groups will be part of this exploratory case study. Because various levels of operational risk may exist once a PMO is in place, this exploratory case study also introduced factors or dependencies associated with various levels of risk. For example, training and documentation can be associated factors with the levels of risk once a PMO is in place. This section included the provision of two published definitions of operational risk from two financial organizations (JPMorgan Chase and Credit Suisse) and what these organizations traditionally do to manage operational risk.

Risk Categories: People, Process, and Systems

Jobst (2007) identified internal and external categories of operational risk. The focus of this operational risk section was to review internal operational risk. Jobst categorized operational risk into three components that included process, people, and systems. Jobst thoroughly indicated that internal operational risk:

> . . . attributes loss exposure to the potential for failure of people, processes and technology in the course of regular business operations, such as breaches in internal controls and monitoring, internal and external fraud, legal claims or business disruptions and improver business practices. (p. 319)
>
> These risks are more specifically defined as (i) process risk associated with operational failures stemming from the breakdown in established processes, failure to follow processes or inadequate process mapping within business lines, (ii) people risk from management failure, organizational structure or other human failures, which may be exacerbated by poor training, inadequate controls, poor staffing resources, or other factors, and (iii) system risk, which reflects the operational exposure to disruptions and outright system failure in both internal and outsourced operations. (p. 319)

Jobst's (2007) study of operational risk focused on the Basel Capital Accord (Basel II) framework developed by the Basel Committee on Banking Supervision (BCBS) for financial institutions to adopt. Basel II has a capital requirements rule for operational risk in an effort to protect the financial sector from system failure (Basel Committee on Banking Supervision [BCBS], Basel II, 2006). Jobst's applicability and reasoning of the aforementioned factors (process risk, people risk, and system risk) that contribute to operational risk may, in a similar way, support that the absence of structured PMOs and associated governance groups are operational risk factors.

Project Management Training

Training is necessary to maintain and acquire new skills. Brinkerhoff (2005) conveyed that "In today's globally competitive changing market and constant technological advancement, training is a given. Doing training well – getting results from learning investments – is a must, not a choice" (p. 86). Project management training is essential for the success of a PMO structure to acquire knowledge and expertise about various components that make up a system or process that are necessary to manage projects from beginning to end.

Project management training may help improve individual and team performance which may reduce operational risk. According to Aramo-Immonen, Koskinen, and Porkka (2011), training should be tailored according to individuals' work environment. Internal categories of operational risk (process, people, and system) identified by Jobst (2007) may be addressed through project management training using a formal or informal training setup.

Aramo-Immonen, Koskinen, and Porkka's (2011) research findings conveyed that formal training was not a necessity when working in project-based organizations that tend to have a fast-pace work style; the authors recommended conducting further studies for the appropriate type of

training that would accommodate individuals of project-based environments who do not have the time to attend formal training. Aramo-Immonen, Koskinen, and Porkka defined a project-based company as ". . . an organization in which the majority of products are made against bespoke designs for customers" (p. 257). In this type of environment, it may make sense to develop on-the-job training.

Individual and team performance may be achieved through formal or informal training. In project management, individual and team performance may be considered measures of project success. Training may need to be tailored for each individual or work environment. Aramo-Immonen, Koskinen, and Porkka's (2011) indicated that "For an individual to learn, he or she must move to a learning mentality. That is, the individual has to be motivated" (p. 260) and motivation may be the result of effective training programs.

Project Management Documentation

Project management documentation is as important as formal and informal project management training is for organizations. Ofori (2013) conveyed the need of project documentation when managing projects. Ofori indicated that "Attention to detail, along with the involvement of key stakeholders and proper documentation at each stage ensures the success and quality of the project" (p. 14). Project management documentation could have various levels of maturity for the development, maintenance, and applicability in a PMO structure. Project documentation repositories (digital storage) can also help PMO structures become more efficient and effective in the reduction of rework.

Project management documentation is essential to avoid rework or recreation of essential documents in need of production to address elements of project phases while supporting PMO structures. Idoro (2012) conveyed that construction projects rely on project documents,

especially contracts that need to be filled out several times. Idoro used the inception, design, tendering, and construction phases of a project to conduct a construction project documentation study. Idoro's study revealed that ". . . the levels of use of project documents in the four project stages significantly influence the clients' satisfaction with the duration, cost and quality of the projects and the overruns in their duration and budget" (p. 16).

Traditional Types of Risks

Annual reports of financial organizations typically report three major types of risks: credit risk, market risk, and operational risk. When addressing operational risk, financial organizations define operational risk management as the proper managing of systems, people, and resources to reduce the impact of risk to the organization (Jobst, 2007). Financial organizations and regulatory agencies should conduct a thorough analysis to address strategically each of these risk components (market, credit, and operational risk) to identify the association or interaction with one another to the reduction of operational risk. Financial organizations maintain (traditionally, as per annual reports) adequate levels of capitalization, insurance, and tools to help them with the immense task of complying with operational risk management.

Financial organizations also rely on various models in the analysis of traditional types of risks. For example, in studying the multiple states of financially distressed companies, Tian, Davy, McCrae, and Lodh (2010) used financial ratios, market-based data and company-specific variables ". . . on examining the determinants of multiple states of financial distress" (p. 40). Identifying the association or interaction of market, credit, and operational risk through the use of models may also allow organizations to identify financial distress.

JPMorgan Chase and Operational Risk

JPMorgan Chase & Co.'s (JPMC) definition of operational risk was, according to its 2010 annual report, ". . . the risk of loss resulting from inadequate or failed processes or systems, human factors or external events" (JPMorgan Chase [JPMC], 2010, p. 147). JPMC's concept of operational risk aligns with Jobst's (2007) definition of operational risk discussed earlier in this exploratory case study. Furthermore, JPMC summarized operational risk as follows:

> Operational risk can manifest itself in various ways, including errors, fraudulent acts, business interruptions, inappropriate behavior of employees, or vendors that do not perform in accordance with their arrangements. These events could result in financial losses and other damage to the Firm, including reputational harm. (p. 147)

Despite common risk management frameworks that consist of risk identification, risk measurement, risk monitoring, risk reporting and analysis, and audit alignment, JMPC and several other financial institutions have not dealt with operational risk at the practical level. To monitor and control operational risk, JPMC had policies and a control framework (Phoenix tool) to control its operational environment. To mitigate operational risk, JPMC maintained insurance to be in compliance with local laws and regulations. Other companies opt to outsource to reduce operational risk (Singh, 2005). Finally, to identify, monitor, and report operational risk, JPMC categorized risk events as follows:

- Client service and selection
- Business practices
- Fraud, theft and malice
- Execution, delivery and process management
- Employee disputes

- Disasters and public safety
- Technology and infrastructure failures (JPMC, 2010, p. 147)

JPMC had the systems in place (according to its 2010 annual report) to handle market and credit risks. According to its 2010 annual report, JPMC also had the systems in place to manage operational risk. JPMC, however, did not have the practical approach to associate or integrate the managing of relevant projects through a PMO and associated governance groups to relate, integrate, or handle the levels of operational risk.

Credit Suisse and Operational Risk

Credit Suisse (2010) defined operational risk as ". . . the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events" (p. 139). Credit Suisse's practice was to identify, record, assess, monitor, prevent, and mitigate operational risks and to provide meaningful reporting. In the 2010 annual report, Credit Suisse management admitted that operational risk was different from market and credit risk in terms of the difficulty to identify the sources of operational risk.

Credit Suisse also admitted that the amount of risk ". . . is also inherently difficult to measure" (p. 139). In a similar practice like JPMC in dealing with operational risk, Credit Suisse also transferred operational risks to third-party insurance providers and also maintained a firm-wide framework for operational risk management. Singh (2005) reviewed the practice of outsourcing in financial firms to transfer risk but ". . . to make sure regulated firms have in place appropriate systems and controls to ensure the third party complies with the rules and procedures a regulated entity would be required to do" (p. 202).

Financial Collapse of 2007-2009

The financial collapse of 2007-2009 brought about a recession (Wheelock, 2010) that began in December 2007. The generation of responses to the financial collapse of 2007-2009 attempted to provide explicatory answers to the financial crisis with accompanied solutions to prevent future collapses. This section provides background and future outlook of the financial crisis of 2007-2009 and responses from the Federal Reserve and other commentators.

The Federal Reserve's response to alleviate the financial crisis of 2007-2009 consisted of various phases. The Federal Reserve's first phase consisted of making funds available or providing liquidity to banks and other financial institutions in severe need of funds with the goal of helping put order to the financial markets. As the crisis intensified, according to Wheelock (2010), ". . . the Fed drew on authority granted during the Depression to provide emergency loans to distressed nonbank firms" (p. 90). Wheelock indicated that "The Fed also lowered its target for the federal funds rate effectively to zero and eventually purchased large amounts of U.S. Treasury and agency debt and mortgage-backed securities" (p. 90).

In other parts of the world, the International Monetary Fund (IMF), an international financial group that borrows money from central banks (e.g., Federal Reserve Bank of the United States) to lend money to banks in individual countries, had to adjust its borrowing and lending strategies to accommodate the 2007-2009 world financial collapse that was occurring as a *moving target*. The European Central Bank (ECB), which lends money to its eurozone banks, which in turn buy government bonds from ECB, also had to adjust its borrowing and lending strategies. Other central banks around the world had to also adjust their borrowing and lending strategies during financial collapse of 2007-2009.

Adjusting borrowing and lending practices to alleviate the 2007-2009 world financial collapse provided a short-term solution to the crisis, but the strategies did not reduce the chances of another collapse. According to Wheelock (2010), ". . . it remains unclear whether an alternative policy would have been more effective at alleviating the financial crisis and limiting its impact on the broader economy with potentially fewer long-term consequences" (p. 105). Financial organizations and regulators can work together in ensuring that another financial collapse is preventable by using PMOs and associated governance groups that may contribute cumulatively to the successful management of operational structures.

The financial meltdown of global financial markets that occurred in 2007 through 2009 was the result of unknowable toxic debts of unregulated United States banking systems and other capitalist countries, which were not allowed to collapse (Ghotge, 2009). The pouring of money used to bail out troubled financial institutions tried to fix the problem without much success. Ghotge used the analogy of ". . . pouring money into a well of unknown depth in the fond hope that the well will eventually overflow and provide water for all" (p. 85) in association with the use of public money to bail out financial institutions that caused the global financial meltdown.

Wheelock (2010) indicated that (as cited in Buiter, 2009; Lacker, 2009; and Reinhart, 2008) ". . . such lending may have weakened the incentives for creditors to monitor and penalize excessive risk-taking by firms deemed 'too big to fail'" (p. 105). Bernanke (2009), chair of the Federal Reserve System during the financial collapse, indicated that authorities have the responsibility to ensure that failures of large and interconnected financial firms do not occur ". . . because of the risks such failure would pose to the financial system and the broader economy" (Too Big to Fail section, para. 1). Vitell, Dickerson, and Festervand (2000) conducted a national

study to assess ethical problems, conflicts, and beliefs of business professionals and conveyed top management behavior to be the most influential factor of unethical decisions.

The 2008 financial markets dilemma left bank depositors doubtful about the stability of financial institutions that held their deposits, investments and borrowings; the government stepped in by providing guarantees to financial institutions in the form of bail outs. Bondt (2010) indicated that "Consumers were not adequately protected. There was an epidemic of deceptive lending (p. 143). The eurozone dilemma with the bond markets or sovereign debt – that appeared in 2010 and spilled over into 2012 – paralleled the United States' dilemma of the financial markets turmoil. Eurozone countries such as Greece, Ireland, Portugal, Spain, and Italy were the first ones hit by the bond market turmoil in 2011.

Turbulence in Financial Markets

Turbulence in financial markets reflected impacts to the financial industry: Rating agencies conducted financial downgrades, which subsequently received criticisms. UBS engaged in tax evasion, rogue fraudulent activities, and lost billions of dollars in fines. Bank capital rules required more capital reserves from financial institutions.

UBS and the Case of Exchange Traded Funds

The near-collapse *subprime meltdown* situation of Union Bank of Switzerland (UBS) bank during the 2009 financial crisis left UBS with a loss of $50 billion in subprime mortgage write-downs in its investment bank. The subprime meltdown and United States authorities' allegations against UBS in helping its private bank United States clients with tax evasion prompted the bank to seek help from a retired 67-year-old financial titan, Oswald Grübel, UBS chief executive. The main purpose for hiring Oswald Grübel was to revive UBS bank (Burgess, Jenkins, Masters, & Murphy, 2011).

In September 2011, UBS again experienced a turbulent financial crisis with the loss of $2.3 billion in a rogue and fraudulent trading scandal. An UBS 31-year-old junior trader of the London Delta One desk (a place to conduct *derivative* trading activities), Kweku Adoboli, made unauthorized *futures* transactions using fake trades to make them appear as *hedged* trades. The rogue trading impacted UBS' biggest shareholder, Singapore's sovereign wealth fund, Government of Singapore Investment Corporation (GIC). Allegations about Kweku Adoboli using *exchange traded funds* (ETF) to hide loss-making trades created a major scandal for UBS. As a result, global banking and security regulators quickly began to increase transparency and scrutiny over exchange traded funds: "Regulators are considering rules to circumscribe the amount and quality of collateral ETF providers need and may also force the fund managers to disclose more about their counterparties and the techniques they use to match the indices the funds are supposed to track" (Burgess, Jenkins, Masters, & Murphy, 2011, p. 1).

A problem associated with ETFs in exposing them to risk is that they trade over-the-counter, can trade like regular stocks, are not reported but listed on exchanges. In the case of UBS, ". . . several European banks' ETF did not issue confirmations until trades were settled many days later" (Alloway, Burgess, & Masters, 2011, p. 16). A common feature of ETFs is that they tend to replicate the index performance of the stock market. This is a problem for national and international regulators that require oversight and implementation of correct measures to correct it. UBS compliance officers detected Kweku Adoboli's unauthorized activities and called the police to arrest him.

The UBS scandal, according to Murphy, ". . . parallels with the Jérôme Kerviel rogue trading scandal at France's Société Générale in 2008" (2011, p. 19). The financial industry assertively labels ETFs as *safe* and *transparent* trading funds. Keeling, Maniam, and

Subramaniam (2012) concluded that "The 'flash crash' of May 6, 2010, produced shock waves throughout the investment world. Exchange-Traded Funds were found to be especially vulnerable to a financial crisis" (p. 153). ETFs and several other financial instruments should be at the radar screens of internal risk management governance groups of financial institutions and regulatory groups, such as the Swiss Financial Market Supervisory Authority (FINMA), the UK Financial Services Authority (FSA), and the Basel Committee on Banking Supervision.

The UBS ETF case shows that regulatory groups and executive oversight are a necessity, the establishment or enforcement of internal and well-structured PMOs and associated governance groups may be the norm for operational infrastructures of financial institutions, and a global monitoring system that could be dependent upon the benefits of project management. UBS executive, Oswald Grübel, who ". . . sought revamp of bank's governance" (Jenkins, 2011, p. 1), resigned on September 24, 2011, signaling the world that (a) UBS may be forced to divest its private, asset, and investment banking operations, (b) Oswald Grübel's plans failed because the board put its own interests above the interests of investors by not accepting Grübel's demands for the right governance and strategy, and (c) the financial industry is in need of more internal governance groups to help expose and prevent unethical practices and mitigate financial issues created for the reasons discussed in this exploratory case study. A bank's success not only depends on buoyant revenues but also on its strong internal operations with which everyone can become a leader.

Bank capital rules such as Basel Capital Accord continue to be rewritten in an emphasis to require more capital reserves from financial institutions. To support infrastructure operations of financial organizations, PMOs and associated governance groups may be necessary; this way, even massive losses – such as those UBS experienced – can be avoided through the use of

central control functions of internal governance groups. Moddie (2009) indicated that ". . . it is first necessary to conduct in-depth analysis of examples of where rogue trading has occurred in the past" (p. 169), which conveyed the necessity to have central control systems for the development of rogue trading analysis monitored and managed using internal governance groups. Undetected control errors may be the main problem that facilitates fraud, but well structured PMOs with associated governance groups may detect unstable systems or processes until they reach acceptable maturity levels, the result of repeatable processes.

United States Downgrade

The Standard & Poor's (S&P) downgrade of the United States long-term sovereign credit rating from 'AAA' to 'AA+' on August 2011 marked another negative outlook to the already turbulent financial markets. S&P's analysts justified the downgrade because the United Stated fiscal consolidation plan, agreed by Congress and the Administration, fell well short to stabilize the government's medium-term debt – stressing that the United States effectiveness, stability, and predictability of its policymaking and politics had weakened during a time of fiscal and economic challenges. S&P indicated in a press release (2011) that:

> The primary focus remained on the current level of debt, the trajectory debt as a share of the economy, and the lack of apparent willingness of elected officials as a group to deal with the U.S. medium term fiscal outlook. None of these key factors was meaningfully affected by the assumption revisions to the assumed growth of discretionary outlays and thus had no impact on the ratings decision. (p. 1)

Rating agencies, such as S&P, Moody's, and Fitch Group, get paid by issuers (companies and governments). In 2008, rating agencies received global criticisms from governments, central banks, and regulators (a) for giving false approvals to subprime securities that betrayed the

interests of investors who depended on their opinions, and (b) for later downgrading them in a rush when the crisis hit. In December 2011, rating agencies were again criticized for *warning* 15 eurozone members of possible downgrades for the risk of eurozone default. In January 2012, rating agencies received criticism from the governments of France and Austria for receiving a lower grade from S&P – creating controversial criticisms to previous downgrades made.

Central banks rely on rating agencies to decide on the choice of collaterals from banks and to assess the riskiness of their assets, though Purda (2011) conveyed that ". . . failures have led many to question the value that rating agencies provide and whether they remain useful indicators of credit quality" (p. 20). Rating agencies should be left alone to do what they know to do best but can benefit from project management governance groups to help devise innovative business models for regulatory groups to guide investors while getting paid by the issuers without any conflict of interest so that financial markets, governments, central banks, and regulators can reply confidently on their expertise. The 2011 downgrade of the United States marked a period of unprecedented events that signaled policymakers, regulators, internal governance groups of financial organizations, and others that major changes need to take place in the financial industry. PMO structures may be the answer to the changes that need to take place in financial organizations, regulatory groups, and rating agencies, to name a few.

PMOs and Operational Governance Groups

PMOs and associated governance groups continue to grow to facilitate project execution, increase performance, produce positive return on investments, and other necessary factors discussed in this exploratory case study that could boost performance. PMOs and associated governance groups may help address regulatory concerns and demands. According to Aubry,

Müller, and Glückler (2011), ". . . governance has become an emerging topic" (p. 43), and conveyed that:

> After a number of corporate scandals, guidelines for corporate governance, such as Sarbanes-Oxley Act (SOX), the Higgs report, or Basel II, were developed in order to protect investors. The aim is to reduce risk through transparency of business conduct and extended reporting requirements. (p. 43)

Aubry, Müller, and Glückler (2011) indicated that (as cited in Crawford & Cooke-Davies, 2005; Müller, 2009), "Project management and its governance is a subset of corporate governance" (p. 43), which helped convey (and support) the importance of the establishment of PMOs and associated governance groups in financial organizations. Project management can play a strategic role in corporate governance mandates to be part of the Basel accords. Project management can also play a strategic role in future regulatory rules that mandate changes to corporate governance structures.

PMOs

A PMO is a governance group within an organization established to help monitor and control projects of diverse endeavors in contributing to organizational transformation or to contribute to organizational performance. For example, proposed projects can deliver an application that may impact an entire organization. A project may be a government mandate to implement a feature that may impact an entire country and which may have a time constraint. In a study of four organizations, Aubry and Hobbs (2011) provided evidence of PMO contribution to organizational performance. In the same way, PMOs may be of benefit in reducing operational risk levels of financial institutions.

In defining PMOs, Hobbs and Aubry (2008) affirmed that (as cited in Aubry, Cyr, Lavoie-Tremblay, & Richer, 2011) "While the search for typology has naturally taken place, deductions based on statistical analysis have not supported their functional specialty (i.e., strategic, tactical, or operational PMO) or their degree of centralization" (p. 63). Furthermore (as cited in Crawford, 2002; Dinsmore, 1999), Aubry, Cyr, Lavoie-Tremblay, and Richer conveyed that ". . . PMO typologies exist based upon an intuitive practical approach on which most of the current PMO models in the professional literature are based" (p.63). The definition of PMOs varies as a result of standards in place, and the practical approach used by organizations in incorporating PMOs in their infrastructure, business, or information technology settings.

PMOs can also interact or share synergies with internal governance groups such as risk management to deal with operational risk to ensure the achievement of project objectives and value creation. Increase of bank services fees to consumers demonstrates the adverse result of operational risk performance. Robinson (2005) indicated that "An IT governance program defines the IT structure, measures, and monitoring framework needed to effectively identify and manage risk" (p. 46). Likewise, a PMO governance program defines the PMO structure necessary to manage projects and associated risks. Additional measures and monitoring frameworks (e.g., IT governance programs) are also needed to identify and manage enterprise risk collectively.

Program Management Governance

Program management is a PMO associated governance group that seeks to manage collectively related projects. In a study to measure program success (as cited in Maylor, et al.), Müller, Shao, and Turner (2012) differentiated project management as one that ". . . focuses on performance at the tactical level, like meeting the requirements of time, cost, and quality,

whereas program management takes a more holistic perspective in order to bring about the fundamental and transformational changes in organization" (p. 37). At the tactical level, project management concerns the attributes of time, cost, and quality, which if not managed, may contribute to operational risk. At the holistic level, program management may bring the same benefits to an organization in terms of managing operational risk, but with the added benefit of holistically realizing strategic objectives (Thiry, 2002).

IT Portfolio Governance

Information technology (IT) portfolio governance is about the establishment of a governance group to oversee a portfolio of IT projects to improve effectiveness in the IT organization through (in various cases) the incorporation of various groups such as the IT Infrastructure Library (ITIL) and the Control Objectives for Information (COBIT). Bouraad (2011) conveyed the importance of IT portfolio governance and that of operation manager's preparedness in knowledge and managerial skills in creating strategic business alignment for organizations. Furthermore, Bouraad categorized IT activities into eight sub-activities, forming a list of essential IT business processes, such as IT human resources management, IT relationship management, IT organizational management, IT technology management, IT risk management, IT quality management, IT financial management, and IT procurement management.

The operation manager competencies, and IT service management sub-functions, Bouraad affirmed, facilitate project success and overall company performance. Michiel (2014) indicated that "The incorporation of governance into the project field reflects a widening of focus away from the day-to-day technical, operational and supporting activities that need to be fulfilled to ensure the delivery of project outcomes" (p. 23). IT portfolio governance is an essential

component to the overall PMO structure that may facilitate the reduction of operational risk in financial organizations.

Enterprise Risk Management Governance

Enterprise risk management (ERM) is the *umbrella* that covers the integrated efforts of managing risks in organizations, but the concept is too broad to cover if addressed by itself. This exploratory case study covers a component of enterprise risk management that would help reduce operational risk – the PMO and associated governance groups, such as portfolio and program management – that encompass the major components of the overall enterprise risk management, and if not optimally structured may have significant and negative operational risk effects. Analogously, IT governance should not occur in isolation of ERM ". . . from either the overarching corporate governance model or the ERM model – or, for that matter, from the company's compliance culture" (Robinson, 2005, p. 46).

A subset of ERM is the risk management governance group, which is essential in the managing of risks across projects. In studying risk management committees (RMCs), Subramaniam, McManus, and Zhang (2009) conveyed that ". . . the role of RMCs in supporting corporate governance is potentially a critical one" (p. 320). In a study produced by the PMO Executive Council (2011), *Managing risk across the project lifecycle*, a dashboard used by TransCanada demonstrated the effectiveness of using project health dashboards and project health criteria in managing project risk. The project health dashboard contained the following categories: delivery, client, resourcing, budget, and technical for all its projects. The project health criteria consisted of the following categories: the delivery category included schedule, product definition management, project management process, issue resolution and risk management, vendor, and service definition management; the client category included client

involvement and client satisfaction with delivery; the resourcing category included project team, project team skill set, and resource availability; the budget category included budget versus forecast (cost of variance); and the technical category included technical solution, infrastructure, and vendor product.

The study of Thamhain (2013) provided a framework for integrated enterprise risk management (ERM) for risk detection and management. Thamhain suggested early risk detection and mitigation but concluded dependency on ". . . collective multifunctional involvement and collaboration of all stakeholders, it is important for management to foster an organizational environment conductive to effective cross-functional communication and cooperation" (p. 32). Thamhain provided the strongest influences on risk management from three enterprise areas of work processes, organizational environment, and people. Thamhain concluded that

> Although no single set of broad guidelines exists that guarantees project success, the process is not random! A better understanding of the organizational dynamics that affect project performance, and the issues that cause risks in complex projects, is an important prerequisite and catalyst to building a strong cross-functional team that can collectively deal with risk before it impacts performance. (p. 33)

In summary, all governance groups work in unison to reduce operational risk. Subramaniam, McManus, and Zhang (2009) conveyed that ". . . specialist boards such as a RMC will be able to devote more time and effort towards integrating the various risks organisation-wide and evaluating the related controls as a whole" (p. 320). In the case of enterprise risk management, most of the governance groups fall under its umbrella, including PMOs, program

management, and project management. An enterprise risk management can form an integrated governance group that may help reduce operational risk and prevent another banking collapse.

Regulatory Groups

Basel Accords

The Basel Committee on Banking Supervision (BCBS) is an organization that provides capital, leverage, and liquidity standards to the financial sector to strengthen risk management, regulation, and supervision. BCBS's purpose is to help with banking supervisory issues of financial institutions worldwide. BCBS defines its purpose as follows:

> The Basel Committee on Banking Supervision provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. It seeks to do so by exchanging information on national supervisory issues, approaches and techniques, with a view to promoting common understanding. (2011, para. 1)

In September 2009, the creation of a new international regulatory framework for banks (Basel III) became the standard to enhance the pillars that formed the previous Basel accord, the International Convergence of Capital Measurement and Capital Standards or Basel II. The new Basel III accord defines the global bank capital rules, which requires financial institutions to disclose leverage ratios (top quality capital to total assets expressed as capital divided by total assets) – a measure of bank borrowing and risk – with the purpose of lowering risk weights. Basel III, according to the Bank for International Settlements (BIS) is a,

> . . . comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of

the banking sector. As disclosed by the Bank for International Settlements (BIS) on Basel III, these measures aim to:

- improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source
- improve risk management and governance
- strengthen banks' transparency and disclosures (International regulatory framework for banks section (para. 1)

The purpose of the new Basel III is to increase resilience to the banking system from economic shocks by increasing capital and liquidity buffers to allow more resilient infrastructures. Boosting tier one capital (a measure of financial strength) is a concern for banks because capital reserve allocation plans must be in place prior to 2013 to comply with global bank regulators' deadlines – such as the European Banking Authority (EBA) regulator – to ensure compliance to the requirements via stress tests to identify capital deficits. Wellink (2010), the Chairman of the BCBS, proposed the need for ". . . strengthening the global capital framework and introducing a global standard for liquidity" (p. 1) without emphasis on recommending infrastructures composed of governance groups to strengthen the foundations of the banking system, such as project management offices, portfolio management offices, and enterprise risk management. Table 1 lists the pillars and purpose of the Basel II and Basel III accords.

Basel Pros and Cons

Jenkins (2011) proposed to remove ". . . the second leg of the global financial crisis before it's too late" (para. 1), which is the disclosure of leverage ratios. Jenkins sustained three arguments to remove Basel: 1) banks cannot afford to raise Basel capital requirement and need to

hold 10 percent of return-on-equity of their risk-weighted assets to persuade shareholders to own bank stocks. 2) Banks are forced to increase liquidity buffers and national regulators expect holdings of traditional safe asset class of sovereign bonds. 3) Banks are required to reform bankers' pay by limiting bonuses, which (as a result) forced banks to increase bankers' salaries.

Table 1

Basel II and Basel III Pillars

	Basel II (2004)	Basel III (2013)
Standards or pillars information	Tier 1 Capital Leverage Liquidity	Tier 1 Capital – more capital Leverage – disclose ratios (top quality capital to total assets) Liquidity – more liquidity
Purpose of accord	To strengthen: Risk management Regulation Supervision	To strengthen: Risk management Regulation Supervision

By 2019, Basel III reforms will mandate financial institutions to achieve a seven percent ratio of core capital to risk-weighted assets. Triana (2011) indicated that "By imposing harsher capital requirements, in a phased-in process up to 2019, banks will have to post much more equity capital (i.e., "real" capital) to back their balance sheets" (p. 42). Financial and economic *think-tanks* proposed a few solutions – withholding dividends, raising capital in the market, and ridding off return on equity (which is not adjusted for risk) that make bankers rich and shareholders poor – to name a few.

To lower risk weights or reduce risk, financial institutions may adopt to circumvent capital requirements – in trying to achieve a seven percent ratio of core capital to risk-weighted

assets, lowering risk weights would mean managing risky assets by not lending to borrowers. Triana (2012) questioned "And won't bank lending be cut back as a result of more stringent equity demands? Not necessarily. Banks could still go on doing exactly the same things, only now those activities would be financed less via debt and more via equity" (p. 46).

According to Jenkins (2011), banks have up to eight years to comply with capital and liquidity requirements; Jenkins indicated that the Basel rules were traditionally slow to react to market conditions. Jenkins asked "What if banks were to take a break from Basel and instead had a bash at self-regulation?" (para. 13), while Admati (2011) indicated that easing capital rules would not produce positive outcomes and ". . . doing so would be dangerous, because banks' incentives would continue to lead them into investments and actions that they find more attractive and away from much of the lending that the economy needs" (para. 3). Admati also conveyed that "Regulatory forbearance, and the 'gambling for resurrection' that followed, failed miserably in the US savings and loans crisis in the 1980s and it will not save us today" (para. 3). Jenkins provided justifications to remove Basel, while Admati included justifications for not easing capital rules. Both arguments provided *provocative* insights, but more governance may be needed at the individual financial institutions, which may be possible with the integration of PMOs in the Basel frameworks for financial institutions to maintain as part of their corporate infrastructures.

A proposed solution to the *too big to fail* syndrome, which generated criticism during the financial crisis of 2007-2008, is to separate investment banks from their depository operations. According to Braithwaite (2011), regulators like Sheila Bair, chairman of the Federal Deposit Insurance Corporation (FDIC), wanted to impose tougher rules for big banks to end the *too big to fail* syndrome. As reported by Braithwaite, Bair ". . . believes separate liquidity and capital

could provide part of the answer" (p. 1) and that ". . . an investment bank could be hived off more easily from a depository bank" (p. 1) if a new regime of *resolvable* (wound down) financial groups is in place.

Cecchetti's (2010) remarks (prepared for the Korea-FSB Financial Reform Conference of September 3, 2010) provided an in-depth analysis of costs and benefits in strengthening the financial system. Cecchetti, the economic adviser and head of the Monetary and Economic Department of the Bank of International Settlements, provided a series of convincing remarks about increasing capital and liquidity standards for Basel III. Cecchetti explained the motive behind financial regulation as follows:

> Left to their own devices, banks hold too little capital and too little liquidity. Lower capital means higher returns to the bank's equity holders. But it also leaves banks with a smaller buffer to weather loan defaults and investment losses. Less liquidity essentially means a higher fraction of the bank's long-term assets have been funded with short-term debt. The greater this maturity mismatch, the higher the bank's interest rate margins and profits. But this also heightens the bank's exposure to sudden withdrawals and difficulties in rolling over debt. (p. 2)

Cecchetti (2010) stressed the benefits of more capital and liquidity in reducing the perceived likelihood of another financial crisis. Cecchetti justified capital and liquidity increases by conveying that banks can meet new requirements by retaining more earnings through reducing dividends, decreasing liabilities, and reducing costs of doing business, including managerial compensation. Cecchetti's justification in requiring more capital and liquidity for banks may place consumers at a loss because loan rates can increase substantially with such increases in capital and liquidity requirements. Cecchetti indicated that

> Equity investors – suppliers of the bank's risk capital – require higher returns than depositors. So, higher capital requirements mean higher funding costs; costs that banks might try to recover by raising the loan rates they charge borrowers or by shrinking their balance sheets. (p. 8)

Basel III, Dodd-Frank, and Volker Rule

Basel III is an international initiative to protect borrowers from abusive lending institutions. The Dodd-Frank is a United States initiative to protect borrowers from abusive lending practices of financial institutions. Basel III and Dodd-Frank initiatives are not coordinated as of this writing, which place financial institutions in a losing position in terms of competition, requirements, time, and other issues noted in this exploratory case study. When discussing about making banks more transparent, Bartlett (2012) indicated that "Both Dodd-Frank and the Basel proposal provide surprisingly little guidance" (p. 296).

The regulatory activities of consumer regulators, international, and local may cause financial institutions to suffer in the short term as these two rules come to the final stages of implementation. Central banks may consider not lending to financial institutions in need of funds that do not comply with the Basel III requirements because of lack of collateral and cash raising capabilities. Implementing the Basel III rules would crimp lending and would affect the economy. The rules may prevent financial institutions from lending to small and medium-sized businesses because of the capital amount required to be set aside for such loans and may also affect banks with a liquidity crisis. Bartlett (2012) conveyed that ". . . if a bank's liquid reserves and assets are insufficient to meet depositors' demand, a sudden withdrawal of funds by depositors may cause a liquidity crisis for the bank" (p. 303).

The Volker rule (part of the Dodd-Frank act), in effect in July 2012, is about restricting banks from proprietary trading (prop trading) – trading with their own accounts (trading with consumers' deposits). Basel rules are another global restriction for bank capital. Financial rules and other restrictions could hit liquidity, and the overall health of the entire market – causing banks to do less trading and to affect clients (with more expensive fees) and consumers (with higher interest payments). Austill (2011) conveyed that the Volker rule may not be sufficient to protect consumers or solve the financial crisis dilemma. Austill concluded that "Dodd-Frank may attempt to legislate competency and transparency in financial decisions, but it is unlikely to succeed on its own" (p. 70) and indicated that ". . . diligence, integrity, trust, and discernment are ethical virtues a firm, its managers, and regulators must have to satisfactorily reduce the risk of injury to their stakeholders and the public" (p. 70).

Basel and Operational Risk

According to Cernauskas and Tarantino (2009), Basel II does not specify risk drivers for operational risk. Proposed solutions for the financial sector to reduce operational risk could be helpful because the capital models financial institutions apply to measure risk do not provide the drivers that cause operational risk. Value-at-risk (VaR), a standard measure of operational risk capital financial institutions use, helps generate risk exposure based on historical losses but does not provide the drivers for operational risk (Cernauskas & Tarantino, 2009). FINCAD (2010), a financial analytics services company, indicated that proven models and valuation methods would measure risk. FINCAD also reported that corporations would become more transparent in their financial reporting for competitive funding sources in the new era of regulated capital imposed by Basel III, and banks would need to *know* their clients' risk ratings better to comply with regulators when reporting on their own capital.

Cernauskas and Tarantino (2009) proposed to combine and use *popular* business process modeling frameworks with common (popular) process controls (statistical process control or SPC and engineering process control or EPC). The purpose to combine the two popular models was to improve processes to achieve risk transparency and reduce operational risk losses of financial institutions – because failure in a process can turn into operational risk. According to Cernauskas and Tarantino, the use of business modeling frameworks with process controls can result in optimized processes to ". . . help to produce more timely and accurate information leading to better decision making, help to improve transparency leading to better risk management, and help to improve auditing operations leading to lower compliance costs" (p. 16).

Cernauskas and Tarantino (2009) claimed that operational risk staff and risk managers have a better understanding of business processes – ". . . operational staff understand the causal factors while the risk managers understand loss frequency and severity" (p. 3). Cernauskas and Tarantino indicated that a governance of business process management is necessary to contain a firm's end-to-end processes with the appropriate structures, metrics, roles, and responsibilities. Cernauskas and Tarantino conveyed that governance groups are necessary for operational risk management, and the Basel capital accord lacks the specific risk drivers for its mandated risk events. The business process management governance may be a necessary component of a PMO, or a governance group that interacts with a PMO solution. Whether to remove, soften, or strengthen the Basel standards for more capital and liquidity using a phased approach, or to create more rules to control the international or national financial crisis, governance group implementations such as PMOs at each financial institution are in need of research to explore their influence in reducing financial meltdowns.

Banking Regulators and Rules

The financial crisis in the United States that began in 2007 with a spree of sub-prime loans exposed other issues in the global financial system – such as excess leverage of investment banks, regulatory failures, economic imbalances, and the eurozone sovereign debt in 2011. During the 2007-2009 financial crises, financial institutions in the United States borrowed cheaply but did not consider the risks of complex derivatives and domestic mortgages. Then, the same financial institutions needed rescue from the government. Simona (2012) conveyed that "Eventually, it is the customer who is affected and has to pay much more not only in terms of tax, but also for obtaining loans from bailout institutions at higher costs, apart from often having restricted access to such products" (p. 203). Rescuing a financial system affects taxpayers more than shareholders and bondholders because the financial rescue causes credit to be scant or too expensive.

Before 2007, financial systems had little equity capital requirements. At the aftermath of the 2007-2009 financial crises, global regulators tried to increase equity and liquidity bank capital rules to protect consumers. Triana (2011) indicated that "Very little bank capital is obviously dangerous, but perhaps too much of it won't be healthy either" (p. 42). In a susceptible global economy, the increase of global capital rules may cause a financial system to struggle.

Higher capital ratios (equity as a proportion of risk weighted assets) were the *rules of thumb* financial regulators used for financial institutions to hold. During the Great Depression of 1930, United States President Franklin Roosevelt loosened the banking rules of lending to stimulate more lending. In the third quarter of 2011, global bank regulators tried to soften new bank rules generated by the Basel III standards for liquidity coverage ratios, which ". . . will

require banks to hold enough easy-to-sell assets to withstand a 30-day run on their funding, similar to the crisis that engulfed Lehman Brothers in 2008" (Masters & Murphy, 2011, p. 15) – according to Jenkins (2011), ". . . essentially forcing banks to stockpile enough money to survive for a month in a frozen market" (p. 17).

Banks struggle to keep up with requirements that force them to accumulate enough cash and government bonds when other more structured measures should be in place, which this case study will explore. JPMorgan Chase reported that "Only seven out of 28 European banks tested met the enhanced standards" (as cited by Masters & Murphy, 2011, p. 15). JPMorgan Chase concluded that ". . . the liquidity coverage ratio is the most 'painful' piece of regulation to hit the section, and will cost European banks nearly 12 percent of their 2012 earnings on average" (p. 15). The expectation is for another five percent to hit from ". . . tougher global requirements on bank capital, and a 3 percent reduction from the Dodd-Frank financial reform measures in the US" (p. 15).

The Basel Committee on Banking Supervision, which created the global standards for banks, wanted to soften the bank rules that will go in effect in 2015 (Jenkins, 2011). A structured governance framework for financial institutions to follow may be a need instead of more rules or softening existing rules. Though the desire to soften the bank rules may be a recommendation of many proponents, including Jenkins (2011), in an attempt to reduce the burden of financial institutions in keeping up with more capital rules – softening the rules may provide a temporary relief to banks to comply during financial instability of the market. The researcher will explore the implementation of project management governance groups to the management structures of financial institutions.

Research Gaps

The reduction of operational risk is dependent upon established and new principles to manage risk but may require project management practices to carry them through. Whether or not PMOs and associated governance groups would help in the reduction of operational risk to help prevent an economic and financial collapse – a thorough exploratory research is essential to address and improve the situation with solutions dependent upon local and international mandates. Regulators continue to generate untested solutions to the financial rules for banks, especially the big banks. For example, Bair (as cited in Braithwaite, 2011), the Chairman of the Federal Deposit Insurance Corporation (FDIC), conveyed to the Financial Times that big banks should be split up in liquidity and capital, and further commented on the power of regulators to demand the breakup of big banks into smaller ones to avoid the too big to fail syndrome.

Regulators, politicians, investors, clients, and financial leaders continue to look for answers to the too big to fail syndrome, the financial collapse, better operational risk management approaches, and other financial dilemmas to avoid consumers and stakeholders from taking on the costs associated with financial organizations that face operational risks. The Dodd-Frank financial reform passed in 2010 by Congress – for regulators to identify systemically risky financial organizations – announced that it will not provide another bail-out package to failing financial institutions (note: in September 18 of 2008 Henry Paulson – United States Secretary of the Treasury under the George W. Bush administration and former CEO of Goldman Sachs – and Ben Bernanke, Chairman of the Federal Reserve bank also under George W. Bush, asked Congress for 700 billion dollars to bail out banks). Kroszner and Strahan (2001) indicated that the "Dodd-Frank Act does create additional tools for regulators facing distress at financial firms. Federal regulators now have the authority to close and liquidate financial

institutions that pose a risk to financial stability" (p. 245). The Dodd-Frank reform may prompt failing institutions to adopt a way out and file for bankruptcy (as done by Lehman Brothers), but making the taxpayers the adopters of such debt.

Because most financial institutions are part of the global financial system, regulators and organizational leaders should look to partner with global standard groups, such as the Project Management Institute (PMI), to help mitigate another financial collapse through the implementation of project management practices. PMI is a global, nonprofit organization with project management standards used to manage projects of varied scope. In discussing the value of PMOs in project success and management satisfaction, Ward and Daniel (2013) concluded that ". . . a PMO can contribute to the achievement of those aspects of organisational strategies that depend on delivering projects successfully" (p. 328). As indicated earlier, effective PMO structures allow for greater corroboration and collaboration amongst its members so early warning indicators are more prevalent and easier to manage; provide for greater efficiency in decision-making and, this during periods of great volatility, provide more reasons and better rationale in reaching decisions; can be more agile and faster to change in this evolving world or exponentially expanding e-commerce and make detecting the potential for another meltdown even more acute –so the case for them is compelling.

Hill (2011) discussed risk management practices and recommendations in assessing operational risk; Hill illustrated Warren Buffet's model, which is about creating total risk control from the top (executives) to eliminate failures to assess operational risk. Hill thought it unrealistic to think that a few executives would control and assess operational risk of large organizations when he illustrated the September 2011, $2.3 billion UBS trading scandal –UBS top executive, Oswald Grübel, boasted of his total responsibility and knowledge of UBS' risks.

Instead, Hill suggested that "Companies should set detailed, operational risk management in a broader framework of risk and reward" (p. 12) and that "Top executives and board members should be responsible and accountable for this strategic positioning" (p. 12). Hill also recommended risk committees to assess the future balance of threat as part of risk management practices and structures of organizations, but he disappointedly commented that even risk managers working in well-designed structures may be at the exposure of bad corporate culture.

Bernanke (2009), an American economist and Chairman of the central bank of the United States as of 2012, accentuated the need to use a complete strategy in a financial architecture to prevent future crises. Bernanke indicated that "We must have a strategy that regulates the financial system as a whole, in a holistic way, not just its individual components (para. 4) " and that ". . . strong and effective regulation and supervision of banking institutions, although necessary for reducing systemic risk, are not sufficient by themselves to achieve this aim" (para. 4). In summary, PMOs and associated governance groups – such as portfolio management, program management, and risk management – may contribute to the strategic framework plans of financial organizations. Gaps found in the literature on the impact of PMOs and their influence in reducing operational risk and the study of PMOs and associated governance groups may be the essential components to the solution explored in this exploratory case study through the research questions and subset of questions.

Conclusion

JPMC and Credit Suisse organizations provided examples of how operational risk is managed in financial institutions and provided clues of the apparent need to identify core governance structures to manage operational risk. Organizations carry out temporary endeavors undertaken to create unique products, services, or results (Project Management Institute [PMI],

2008) of different magnitudes of efforts. Delegation of the management of these projects to a centralized group could reduce the impact of operational risk – PMOs, risk management offices, portfolio management offices, and program management offices, are a few examples.

Financial institutions use reactive risk *remedies* to mitigate risks, which may include insurance, tools, or other mandated and regulated approaches. PMI (2011) recommended a proactive process for risk management that included risk identification, risk planning, risk assessment, risk response, and risk monitoring and control. PMI risk management process provided the answer to Abi-Karam's (2006) suggestion that "An effective risk strategy must be based on continuous assessment and correction cycles to address risk through project cycles from initiation through planning and closeout" (p. 4). BCBS frameworks may be the best solution to integrate a PMO framework for financial institutions to reduce operational risk (mitigating efforts) to reduce bank fees passed onto consumers of financial instruments. Finally, the establishment of PMO structures (with regulatory mandates to enforce those structures) may have a significant impact on the prevention of another financial collapse because of the reduction of operational risk.

Chapter Summary

Chapter 2 provided a literature review of the financial collapse of 2007-2009, turbulence in financial markets, operational risk management, Project Management Offices (PMOs) and associated governance groups, regulatory groups, and research gaps to provide historical and current findings of the research topic to support this dissertation. Chapter 3 covered the research method, design, and rationale for choosing an exploratory case study. Chapter 3 also detailed the study sample, data collection, and data analysis.

Chapter 3

Research Method

The purpose of this exploratory case study design using a qualitative research method was to explore and describe how financial institutions in the United States without PMO structures to manage their project operations may be generating various levels of operational risks. The purpose of the exploratory case study also focused on exploring how financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) may be generating various levels of operational risk. As indicated in Chapter1, this exploratory case study used *PMO structures* to refer to PMOs with associated governance groups.

The exploratory case study helped explore and describe the perceived problem that financial institutions in the United States without Project Management Offices (PMOs) and associated governance groups (such as project management, program management, portfolio management, and risk management) may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. The exploratory case study also helped explore and describe the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk. A central research question (followed by a subset of questions) was part of this exploratory case study to explore and describe the contributory

influences to another banking collapse and operational risk factors of financial institutions in the United States – when no PMO structures were in place, or when those structures did not have regulatory oversight and metrics to control and measure the effectiveness of projects and operational structures (through regulated PMO structures) because of the perceived impact on operational risk. An R identified the central research question and its derivative, and an S represented the subset of questions:

R1: How do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) generate various levels of operational risk?

R1.1: What is the perceived impact of integrating PMO structures in the BCBS Basel framework in reducing operational risk?

S1: What are the characteristics of PMO structures that may have perceived influence on operational risk?

S1.1: What factors need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions?

S1.2: What criteria can be used to measure PMO effectiveness?

S1.3: What are the maturity levels of PMOs?

Chapter 3 contained the design and rationale for choosing an exploratory case study using a qualitative method using a non-traditional survey for data collection because of strict compliance policies at the work place of financial institutional leaders with project management experience from participating in one-on-one interviews. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the questions were not designed to ask for confidential information about specific

companies. The research also contained the study sample, data collection, and data analysis plans. This chapter concluded with a review of the selected design validity, data collection methodology, techniques for data analysis, and chapter summary.

Research Design

According to Yin (2009), "Colloquially, a research design is *a logical plan for getting from here to there*, where *here* may be defined as the initial set of questions to be answered, and *there* is some set of conclusions (answers) about these questions" (Chapter 2, Definition of Research Designs section, para. 1). As more financial institutions became a concern to financial regulators because of worries of future financial collapses and bankruptcy filings, regulatory agencies became more concerned about keeping a tight control on the rules that would help control financial institutions by imposing more rules in some cases, or softening and lessening the rules in others. To prevent another crisis, Mittnik, Nell, Platen, Semmler and Chappe (2009) concluded that ". . . new financial arrangements and new types of regulation are needed. These will require a good deal of thought, with particular emphasis on rethinking the relationship between 'public' and 'private'" (p. 265). This exploratory case study helped capture the *voices* of leaders engaged in project management or corporate oversight roles to help understand the contributions of PMO structures in reducing operational risk of financial institutions and in lessening the perceived likelihood of another financial collapse. The following showed a design roadmap that used components of research design provided by Yin (2009):

1. a study's questions;
2. its propositions, if any;
3. its unit(s) of analysis;
4. the logic linking the data to the propositions; and

5. the criteria for interpreting the findings (Chapter 2, Components of Research Design section)

Design roadmap. Chapter 1 included the *study's questions*. The design roadmap included the *proposition* that financial organizations in the United States that did not embrace PMOs and associated governance groups (unit of analysis), or that did embrace such PMOs structures (also a unit of analysis) but with no regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may contribute to another banking collapse (a *real-life phenomenon* required for case studies proposed by Yin, 2009) because of the perceived impact on operational risk. The unit of analysis related to the main perceived problem and was ". . . related to the way you have defined your initial research questions" (Yin, Unit of Analysis section).

The *logic to link the data to the proposition* ensured that the data collected in the design of the exploratory case study addressed the proposition. The *criteria for interpreting the study's findings* resulted from rival explanations because ". . . analysis will not rely on the use of statistics and therefore calls attention to other ways of thinking about such criteria" (Yin, 2009). While the central research question unit of analysis was relevant to PMO structures, its subset question sought to explore the perceived impact of integrating such structures in the BCBS Basel framework in also reducing operational risk. As a result, a rival theory may show that financial organizations with properly structured PMOs and governance groups but without regulatory frameworks to support them to enforce disciplines and guidance may not be sufficient to prevent another banking collapse.

The significance of the exploratory case study was to provide a better understanding of the perceived problem to leaders of financial institutions so that they may change traditional

ways of doing business in not only considering market and credit risks but also operational risks that may have affected consumers of financial services who paid interest and fees. Leaders of financial institutions would consider the benefits of establishing PMO structures for the reduction of operational risks to improve business operations that may (a) benefit consumers of financial services in the reduction of interest and other related fees, and (b) benefit shareholders in creating value for their investments. Regulatory leaders would also consider modifying Basel frameworks by integrating PMO structures to their existing and new accord rules.

Transformational leaders, those who can introduce and execute change, among other attributes argued by theorists and commentators – are necessary for financial institutions and regulatory organizations of the 21st century to deal with a globalized environment. "With the pace of globalization increasing, the organization of the 21st century is undergoing constant change. At the heart of the ability of the organization to meet this challenge is the modern leader" (J. Sienrukos, personal communication, Organizational learning, December 4, 2011).

Appropriateness of the Design

According to Creswell (2008), qualitative approaches may include case studies, grounded theory, ethnographic, and phenomenology designs – with a central purpose to explore and understand. A qualitative case study was appropriate because the contributing factors of banking collapses required exploration and understanding (Creswell, 2008; Yin, 2009). A qualitative phenomenological design did not apply to this study because human experiences were of no interest in the study. A qualitative grounded theory design did not apply to the study because the creation of new theories during data collection had no applicability to explain the phenomenon. An ethnography design did not apply to the study because the intent was not to understand a culture, or to predict and explain the behaviors of members of a culture.

Yin (2009) provided multiple sources of information and examples that conveyed the applicability and use of formal surveys for qualitative case studies. The exploratory case study design using a qualitative method was appropriate because limited research about the reasons for the financial collapse was available and the perceptions about what caused it were not clear or concise. In an exploratory study about tourism, Mason, Augustyn, and Seakhoa-King (2009) conveyed that a qualitative research should be appropriate if limited research was available. Stake (2010) and Stebbins (2001) also conveyed the use of qualitative research when themes could emerge of the study to understand a phenomenon and discouraged the use of qualitative research when cause and effect relationships were apparent, which was not evident in the research method used in this exploratory case study.

Yin (2009) indicated that *experimental* methods separate phenomenon from its context by focusing more on the context through controlled variables and explained that *history* methods deal with non-contemporary events. Yin also pointed out that *surveys* try to investigate phenomenon but context is limited. To overcome the limitation of context in surveys, this exploratory case study used online surveys with open-ended questions that would replace formal interviews not used in this study because of strict compliance policies at the work place of financial institutional leaders with project management experience in participating in one-on-one interviews. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the questions were not designed to ask for confidential information about specific companies. Yin explained the selection of case studies as follows:

1. A case study is an empirical inquiry that
    - investigates a contemporary phenomenon in depth and within its real-life context, especially when
    - the boundaries between phenomenon and context are not clearly evident
2. The case study inquiry
    - copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as a result
    - relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result
    - benefits from the prior development of theoretical propositions to guide data collection and analysis (Definition of the Case Study as a Research Method section)

Yin (2009) conveyed that case studies can explain casual links, describe an intervention and its real life context, illustrate certain topics, and enlighten situations with no clear outcomes. Yin also indicated that case studies ". . . can be conducted and written with many different motives" and that ". . . motives vary from the simple presentation of individual cases to the desire to arrive at broad generalizations based on case study evidence but without presenting any of the individual case studies separately" (Chapter 1, Variations Within Case Studies as a Research Method section). Yin's description of the different designs helped in the selection of an exploratory case study using a qualitative research method with a non-traditional online survey to gather qualitative research responses from participants. The researcher conducted the exploratory case study using online surveys sent to professionals with project management and financial industry experience from the Project Management Institute Westchester (PMIW). The

researcher also gathered data from published documents (from PMI journals) that were relevant to the exploratory case study (Leedy & Ormrod, 2010).

The researcher of this exploratory case study was the instrument in collecting the data using survey and qualitative analysis software programs. Qualitative approaches can include case studies, grounded theory, narrative, ethnographic, and phenomenology designs (Creswell, 2008), with a central purpose to explore and understand. The researcher used a single holistic exploratory case study about financial institutions in the United States using a non-traditional online survey hosted by SurveyMonkey to collect qualitative data from PMIW professional members (who represented the sample data) who possessed project management and financial industry experience. Yin (2009) specifically conveyed that "Case study evidence can come from many sources" (Chapter 4, Collecting Case Study Evidence section, para. 1) and noted the use of formal surveys for case studies. This exploratory case study used a non-traditional online survey to collect qualitative data (captured and hosted by SurveyMonkey), which was later uploaded into the NVivo qualitative software program for coding and analysis.

Yin (2009) indicated that it is essential to identify the unit of analysis in a study and emphasized the importance of identifying the real-life phenomenon, proposition, or theory development in a qualitative study. Yin concluded that "To justify using the case study method, you need to go one step further; You need to define a specific, real-life 'case' to represent the abstraction" (Chapter 2, Components of Research Design, Unit of Analysis, and Theory Development sections). The exploratory case study also explored and described the perceived problem that financial institutions in the United States with PMO structures (unit of analysis) but without regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures may be contributing to another banking

collapse (real-life phenomenon) because of the perceived impact on operational risk (proposition/theory development).

Yin (2009) indicated that ". . . theory development prior to the collection of any case study data is an essential step in doing case studies" (Chapter 2, Theory Development section). The purpose of this exploratory case study was to develop a theory that PMO structures not properly structured and part of regulatory frameworks as mandates may be contributing factors of another banking collapse because of the perceived impact on operational risk. A rival theory may help convey that financial organizations with properly structured PMOs and governance groups but without regulatory frameworks as mandates may not be sufficient to prevent another banking collapse. The rival theory may help support that regulatory mandates of any type may need project management assistance to implement those mandates with appropriate accountability measures.

Population and Sample Size

The researcher conducted an exploratory case study (qualitative) using online surveys hosted by SurveyMonkey to United States residents or citizens (members of PMIW) who would meet the criteria of project management professionals with financial industry experience (embedded sample). The exploratory case study design also included published documents from Project Management Institute (PMI) journals relevant to the study that can support or negate the theory. PMI documents helped triangulate the findings, removed researcher bias, and ensured accuracy of the data. Triangulation and reliability of the data was also accomplished when participants reviewed and verified the accuracy of their responses when taking the online survey.

This exploratory case study used an online survey to collect data from a single project management community group located in New York (PMIW) to unveil potential themes related

to the central phenomenon (contributing factors of banking collapses) or proposition. The size of the population ensured the proper variation in the participants but small enough not to distort the meaning of the analysis (Creswell, 2008). The exploratory case study included an estimated sample size of 10 New York Project Management Institute Westchester Chapter (PMIW) members with project management and financial industry experience. Of an approximate population of 500 member recipients, an estimated sample size of 10 participants was selected and validated through closed-ended questions designed to obtain demographics to qualify project management and financial industry experience. Saturation was expected after achieving a sample size of 10 or fewer participants.

To be eligible to participate in this exploratory case study, participants needed to have minimum work experience of five years in financial industry and two years in project management, validated using closed-ended questions. According to Creswell (2008), when defining qualitative research data collection, ". . . we identify our participants and sites based on places and people that can best help us understand our central phenomenon" (p. 213). PMIW is located in New York – a site located in a city that envelops a strong concentration of financial organizations where project management professionals with financial industry experience deliver work services – which provided the justification for the sample selection, as well as the strict compliance policies at the work place of financial institutional leaders with project management experience in participating in one-on-one interviews.

Informed Consent

PMIW president received a preliminary communication e-mail asking to distribute a survey invitation (Appendix A) to chapter members to conduct the exploratory case study. The survey invitation (Appendix B) contained a link to the exploratory case study, which contained

an informed consent message (Appendix C) prior to taking the survey. Each participant read an electronic informed consent form and started the survey as a condition to participate in the exploratory case study. An online survey software program (SurveyMonkey, purchased by the Researcher of this exploratory case study) included an electronic consent form before the start of the survey. Table 2 contains a list of appendixes referenced in this section.

The online survey showed the exploratory case study to be voluntary and provided an option to withdraw. The electronic consent form also contained references to the exploratory case study's purpose and timeframe to complete the survey. The online survey took between 20-30 minutes (approximately) to complete based upon the proposed questions and expected answers. Respondents received details that no psychological, social, physical, or legal risks would occur during the data gathering. The Institutional Review Board of the University of Phoenix reviewed and approved the study prior to conducting data collection.

Table 2

List of Documents in Appendix

Appendix	Name	Type
A	Communication to PMIW President	E-mail
B	Survey Invitation	E-mail
C	Informed Consent Form for Survey Participants	Electronic Form
D	Survey Questions and Protocol	Online Survey

Confidentiality

Completed surveys received an identification number. The online survey software program, SurveyMonkey, generated unique identification numbers for each survey. Unique numbers provided by SurveyMonkey ensured confidentiality of each survey and helped reduce researcher bias when analyzing the data.

To ensure confidentiality and avoid research bias, only the researcher kept and accessed returned survey responses in the SurveyMonkey software program for a period of the research study, or a minimum of three years. A single password protected the survey account (accessed by the researcher of this exploratory case study) facilitated the creation and processing of online surveys. A *secured access layer* (SSL) encryption feature (security software) included in the SurveyMonkey software program allowed data and session protection between the online survey server computer and the Internet application (browser) of the survey participant. The SSL encryption feature, available to all paid subscribers, was used to turn on the collecting link before distribution to the exploratory case study participants using the online survey software program.

Geographic Location

Participants of this exploratory case study were United States residents or citizens with project management and financial industry experience (Appendix D), who were active members of the PMIW chapter located in New York. The researcher sent invitations to exploratory case study participants using an online survey software program hosted by SurveyMonkey. Each participant completed and submitted responses using the SurveyMonkey online survey software program.

Data Collection

Data collection for the exploratory case study consisted of an online survey with closed and open-ended questions. Neuman (2006) proposed open-ended questions because ". . . respondents are free to offer any answer they wish to the question" (p. 286), which would provide additional insights to the study to allow participants to voice their concerns, opinions, best practices, or experiences. To help understand the central phenomenon (contributing factors of banking collapses) of this study, exploratory case study participants consisted of those

engaged in financial service organizations and with project management involvement. The exploratory case study consisted of two major areas listed in the population section to triangulate the study in ensuring better validation, as follows:

Online surveys. Data gathering for the exploratory case study relied on online surveys to target individuals with project management and financial industry experience that would answer the research questions. The surveys were sent to members of a project management group in New York. The researcher sent the online surveys after obtaining required permission from the chapter president.

Traditional online surveys provide access to a large number of individuals to extract *what* type of questions. A collection of questions for this exploratory case study used a non-traditional online survey, which attempted to obtain answers for *how* type of questions. The survey consisted of open-ended questions with supported closed-ended questions to validate participants with project management and financial industry experience (see Appendix D). According to Creswell (2008), "The advantage of this type of questioning is that your predetermined closed-ended responses can net useful information to support theories and concepts in the literature" (p. 228).

The survey in Appendix D used six demographic, closed-ended questions (1-6) to validate participants for the sample population, and one closed-ended question. The survey had 18 open-ended questions (8-25) to allow participants to support the reasons for their qualitative responses in the development of the exploratory case study. Tables 3 and 4 list the questions aligned with each research question.

Documents. Chapter 2 contained literature review sources to support the exploratory case study, such as articles about Basel III; contributory factors to the financial collapse; and

project management journals about the influence of project management, project management offices, and associated project management governance groups. Documents used in this exploratory case study consisted of PMI journals that referenced PMO structures in supporting organizations; PMI provided a collection of journal case studies related to PMOs, governance groups, and other subjects of importance selected for data collection to support the study. Primary data from PMIW members was triangulated with secondary data of PMI journals to confirm or disconfirm the presented case proposition.

Table 3

Research Questions with Corresponding Exploratory Case Study Questions

Research Question (RQ)	Survey Questions (SQ)
R1: How do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) generate various levels of operational risk? R1.1: What is the perceived impact of integrating PMO structures in the BCBS Basel framework in reducing operational risk?	Appendix D contained a list of 11 open-ended questions (15-25) to address R1 and R1.1 research questions.

Table 4

Subset of Research Questions with Corresponding Exploratory Case Study Questions

Research Question (RQ)	Survey Questions (SQ)
S1: What are the characteristics of PMO structures that may have perceived influence on operational risk? S1.1: What factors need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions? S1.2: What criteria can be used to measure PMO effectiveness? S1.3: What are the maturity levels of PMOs?	Appendix D contained a list of seven open-ended questions (8-14) to address the subset of questions S1, S1.1, S1.2, and S1.3.

Instrumentation

An introductory message preceded the online survey to provide the reader with preparatory information about what to expect in the exploratory case study contents. The administration of the introductory message and online surveys relied on an online software program, SurveyMonkey. The survey tool protocol included a definition of the BCBS accords (Appendix D) to provide additional information about the BCBS framework prior to taking the survey and to set off the introductory message: BCBS sets (through its established accords) complex quantitative and qualitative risk criteria and capital fund requirements (capital reserves) for financial institutions worldwide to ensure sufficient levels of controlled risk and maintained proportions of sustainability (the amount of capital reserves held in proportion to the riskiness of a bank's assets) if another banking collapse would occur. The BCBS accords do not have project management structures such as PMOs and associated governance groups for operational risk management of financial institutions that may help prevent the likelihood of another financial collapse. Financial organizations that do have PMO structures but are still not subject to regulatory oversight, specifically requiring reporting of operational structures and projects (e.g., well-structured PMO and associated governance groups) linked to operational risk, may be generating high levels of risk.

Data Analysis

Data analysis was iterative between the data collection and analysis phases of the research. Data analysis was also a simultaneous process in that, during data collection, the same data underwent analysis using the researcher's interpretative approach. The researcher used software to help organize the data into categories of themes and addressed the central phenomenon (contributing factors of financial collapses). Documents were also analyzed to

support the results of the exploratory case study. PMO structures represented the unit of analysis, and the categories and themes selected from the exploratory case study were derived from such structures upon the input of participants (and documentation to triangulate the data) on the following:

- PMO structures of financial institutions perceived as contributing to the likelihood of another banking collapse
- Characteristics of PMO structures and the perceived influence on operational risk
- Factors to be considered to postulate an optimal PMO structure
- Criteria to measure PMO effectiveness
- Maturity levels of PMOs

NVivo qualitative software program assisted in this exploratory case study, which also helped generate and code themes. According to Shank (2006), "To date, there are a growing number of programs being used for qualitative research, including but not limited to NUDIST, N-VIVO, Atlas-TI, Ethnograph, Hyperresearch, and more" (p. 163). The following described the several phases of data analysis for this exploratory case study:

Organize data. A computer assisted the researcher with data organization and formatting. Surveys were downloaded to the researcher's computer to format the tables and figures used in this study. A list of document sources was collected by researcher and organized in a table, separating materials by type (i.e., peer-reviewed documents, newspapers) to include in the data analysis. The survey tool organized the research questions and corresponding answers based on open- and closed-ended questions.

Analyze the data. Data analysis depended on the NVivo qualitative data analysis software program, which helped break down narrative information of open ended questions data

into the specific unit of analysis of PMO structures and relevant themes. Creswell listed NVivo as a major qualitative software programs and indicated that, ". . . NVivo offers a complete toolkit for rapid coding, thorough exploration, and rigorous management and analysis" (2008, p. 250). Once the survey data was available from the survey tool, it was imported into the NVivo qualitative data analysis program; the program helped store, organize, assign labels or codes, and search the data (Creswell, 2008). After data organization, the coded labels grouped information into broad categories that contained the themes of the exploratory case study.

Validity and Reliability

Four common tests, with appropriate tactics and phase research for each, can be applied to empirical social study research: c*onstruct validity, internal validity, external validity*, and *reliability*. Construct validity and reliability were applied during data collection. Internal validity applies to data analysis but applicable for explanatory or causal studies (Yin, 2009) only and was not used in this dissertation. External validity was applied during research design. Reliability was applied during data collection.

Dependability and confirmability are two qualitative concepts of reliability. This qualitative case study showed dependability because the results could be reproduced by surveying another project management group with financial and project management experience. The qualitative case study showed confirmability because the findings addressed the research questions and were not the results of researcher bias discussed in this paper.

Construct validity. A construct validity test, used in the data collection phase, is about developing the operational definitions and measures for the unit of analysis. For instance, in studying organizations with structured PMOs, what are the characteristics of PMO structures that have perceived influence on operational risk? To increase construct validity, the use of multiple

sources of evidence was applied during data collection (Neuendorf, 2002) – that is, survey data from PMIW members (main source) and relevant documents from PMI journals to triangulate the data results.

Trustworthiness. To support trustworthiness of the results, the researcher used a triangulation strategy through online surveys and documents. McGloin (2008) supported the use of triangulation as a strategy to support trustworthiness of case studies because multiple sources, such as interviews and documentation, provided truth value and enhanced the study. PMI journals that related to PMO structures in alignment with the research questions were used to address trustworthiness in this exploratory case study.

Transferability. Transferability relates to transferring the findings of the original study from the sample of participants surveyed to the entire population studied. The results of the exploratory case study with PMIW participant members were applied to financial organizations in the United States. In comparing the selected PMIW participant members to random sampling selection, the outcome of the exploratory case study would not be transferrable because random selection of project management professionals (with a sample size of less than 10, located in the United States) with financial industry experience that would consider the impact of PMO structures would not be achieved without closed-ended questions to validate the sample participants. In describing research methods to enhance transferability, truthfulness, and consistency of qualitative studies, Slevin and Sines (2000) used known criteria of studying the *typical* to select respondents to interview and conveyed that theoretical sampling instead of random sampling can enhance transferability of the study findings. Slevin and Sines also applied transferability when intentionally selecting the subjects.

External validity. An external validity test, used in the research design phase, is about the condition of generalizing the study's findings to another case. According to Yin (2009), the external validity test ". . . deals with the problem of knowing whether a study's findings are generalizable beyond the immediate case study" (Chapter 3, External Validity section). That is, the results of the online surveys and selected documentations were analytically generalized to financial organizations with PMO structures to reduce perceived operational risk using project management members of other PMI chapters with project management and financial industry experience. Analytical generalization applies to qualitative case studies and statistical generalization applies to quantitative research studies. External validity was identified in the research design by using the proposed theory.

Reliability. Using an exploratory case study with an online survey protocol during the data collection phase, the study can repeat not replicate ". . . the results of one case by doing another case study" (Yin, 2009). Documentation of the procedures was available in this exploratory case study using the online survey protocol to arrive at the same results. Triangulation was necessary to ensure validity and reliability for this exploratory case study using two data sources: online surveys to PMIW members with project management and financial industry experience and relevant documents from PMI journals to reach saturation. This exploratory case study used Creswell's (2008) strategy of validation that consisted of asking respondents to select from a list of closed-ended questions to validate project management and financial industry experience and to validate the accuracy of their responses by reviewing their answers prior to submitting the survey. This exploratory case study also applied a content analysis technique using a coding strategy, recommended by Krippendorf (2004), to categorize the content of the open-ended responses to ensure reliability after data collection.

Pilot Online Survey

A pilot online survey was part of this exploratory case study to capture issues such as data collection, protocol structure design, and the survey software program. The pilot ensured the answers addressed the questions presented to the participants within the specified period of time, participants understood the questions, and the survey tool functioned as intended to work. The results of the pilot online survey were not part of this exploratory case study. The pilot data was used to help identify potential themes in advance.

Chapter Summary

Chapter 3 contained the research design and methodology for this dissertation. Chapter 3 also contained the population, data collection, and analysis. The exploratory case study helped explore the perceived problem that financial institutions in the United States without PMO structures may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. The exploratory case study also helped explore the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk.

This study used a qualitative methodology with a case study design because of the particular issues that financial organizations experience with operational risk, supported by Creswell's (2008) indication that "In qualitative inquiry, the intent is not to generalize to a

population, but to develop an in-depth exploration of a central phenomenon" (p. 213). This exploratory case study also used purposeful sampling. Creswell noted "Thus, to best understand this phenomenon, the qualitative researcher purposefully or intentionally selects individuals and sites" (p. 213). PMIW was the purposeful sample because of the project management experience of its members who were validated to also have financial industry experience. Chapter 4 provided the results of the exploratory case study: demographic characteristics, data analysis procedures, results, and findings.

Chapter 4

Analysis of Data

Introduction

Chapter 4 is organized to present the analysis of the data researched during an exploratory case study using a non-traditional online survey collection technique to gather data from professionals with project management and financial industry experience in the United States. The non-traditional online survey was necessary because of strict compliance policies at the work place of financial institutional leaders with project management experience to participate in one-on-one interviews. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the questions were not designed to ask for confidential information about specific companies. The exploratory case study (qualitative method) also relied on journals from the Project Management Institute (PMI) to support and triangulate the case. This chapter contains the organization of the data analysis, lists descriptive characteristics of the respondents (and pilot group) through a summary of demographic information, reviews the research questions and the relationship to the case study, analyzes the data gathered, and provides a summary of the chapter.

The exploratory case study explored the perceived problem that financial institutions in the United States without Project Management Offices (PMOs) and associated governance groups (such as project management, program management, portfolio management, and risk management) may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product

costs and service fees. This exploratory case study also helped explore and describe the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) that are not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk. Survey software, SurveyMonkey, served as the instrument to collect the data. NVivo qualitative software program served as the instrument to analyze and categorize the data obtained from participants and documents (coding) into themes derived from the clustered data that reflected back into the main research questions and subset research questions.

Organization of Data Analysis

Survey software, SurveyMonkey, contained the features that helped design closed-ended questions to obtain qualifying demographic information about the respondents. Demographic information consisted of participants' roles at current or previous place of employment and qualifying years of experience in project management and United States financial industry fields. After describing the results of a pilot group effort that helped capture issues with data collection, protocol structure, and survey software program – descriptive characteristics of respondents and qualitative data results will follow.

After detailing descriptive characteristics of respondents, the central research question and subset of questions will make up the next section. The survey software contained the features that helped design open-ended questions to obtain qualitative information from respondents. The presentation of the themes and responses will help explore and describe the

contributory influences to another banking collapse and operational risk factors of financial institutions in Chapter 5 of this exploratory case study.

Pilot Study

The exploratory case study used a three-person pilot group that helped capture issues with data collection, protocol structure design, and survey software program. The pilot group met the same requirements of the participants in relation to demographics and experience – role at current or previous place of employment and qualifying years of experience in project management and United States financial industry fields – but this group was not part of the final sample. The pilot group's effort ensured the answers addressed the questions presented to the participants within the specified period of time, pilot participants understood the questions, and the survey software program functioned as intended to work. The responses of the pilot survey were not included in the research data for the conclusions and recommendations in Chapter 5.

The pilot group provided feedback by replying to the following questions: (a) Were the questions clear? (b) Should any of the questions be revised? (c) Was the timing for the overall survey appropriate? (d) Was the format appropriate? (e) Do you have any additional feedback? Table 5 lists a summary of the pilot questions.

One pilot group participant indicated that the boxes to type in information were too small with data shifting to the right. The researcher investigated the issue with SurveyMonkey technical support team who provided the workaround shown in Figure E1 (see Appendix E). To address the format issue, the boxes for Questions 8-25 were modified from 3 to 6 lines and from 50 to 100 characters wide – shown in Figures F1 and F2, respectively (see Appendix F). A second pilot group participant indicated Questions 17 and 18 were similar in content and meaning but caused no confusion if left unchanged; the two questions were not changed.

Table 5

Pilot Group Responses

Pilot questions	Participant 1	Participant 2	Participant 3
Were the questions clear?	Yes	Yes	Yes
Should any of the questions be revised?	No	Maybe	Yes
Was the timing for the overall survey appropriate?	Yes	Yes	Yes
Was the format appropriate?	No	Yes	Yes
Do you have any additional feedback?	Boxes were too small and data shifted to the right	Questions 17 and 18 were similar in content but caused no confusion	Revise Question 1 to current or previous employment

A third pilot group participant indicated Question 1made reference to participants' roles in their current workplace, which would not be applicable if respondents did not work during the survey period. The third pilot participant recommended to update the question that made reference to current roles in employment and to reword the sentence to indicate previous or current roles with employers or organizations. As a result, Question 1, *Please select or specify your role at your current place of employment* was changed to, *Please select or specify your role at your current or previous place of employment*. Collectively, the pilot group participants indicated that the survey timing of 20-30 minutes was appropriate, and the selection of questions were suitable – as well as clearly written and easy to understand – to gather qualitative information about the exploratory case study.

Figures G1 through G6 (see Appendix G) show demographic information about the pilot group. The data shows the following information about pilot participants: 1) 66.67% program managers and 33.33% project managers; 2) 100% had worked in the financial industry; 3) 100% had five or more years of financial industry experience; 4) 66.67% had financial industry

experience in the United States and 33.33% had a combination (inside and outside the United States); 5) 100% had project management experience; and 6) 100% had two or more years of project management experience. Figure G7 (see Appendix G) shows that 33.33% believed that Level 2 maturity level must be part of a PMO and 66.67% considered Level 3.

Presentation of Descriptive Characteristics of Respondents

This section presents descriptive characteristics of respondents. On January 18, 2014, the researcher sent an e-mail to the Project Management Institute Westchester (PMIW) chapter president to forward to PMIW members (see Appendix A). On January 21, 2014, the PMIW chapter president distributed the e-mail about the survey to chapter members and posted a reminder e-mail within a week. On February 29, 2014, the survey received a saturation of 22 responses.

PMIW members were invited to participate in the survey. The survey software program captured 22 entries comprised of eight qualified and complete, eight disqualified, and six partially complete responses, respectively. The SurveyMonkey software program provided the criteria to select and qualify participants in the exploratory case study using a non-traditional online survey collection technique.

Qualified responses. Eight responses were qualified through demographic validation which ensured participants had financial industry and project management experience of five and three years, respectively. The eight responses were also qualified and validated based on participants' completion of the survey. Qualified and completed responses were part of this exploratory case study for the data collection and conclusions of this study.

Disqualified responses. Eight responses were disqualified through demographic validation. Disqualified participants did not meet financial industry and project management

experience of five and three years, respectively. Disqualified responses were not part of this exploratory case study.

Incomplete responses. Six responses were qualified through demographic validation which ensured participants had financial industry and project management experience of at least five and three years, respectively. The six responses were disqualified because the participants did not complete the survey. Incomplete responses were not part of this exploratory case study.

Demographic data. The purpose of the closed-ended questions (1 through 6) was to validate the participation of respondents meeting specific criteria to obtain qualitative responses to open-ended questions. Figures H1 through H6 (see Appendix H) show the demographic data. Tables 6 and 7 show the breakdown of the demographic data.

Table 6

Respondents Demographic Data – Roles

Management Roles	Responses
Project managers	50%
Program managers	0%
Portfolio managers	12.50%
Risk managers	0%
PMO directors	12.50%
Other role	25%

The study had the proper combination of surveyed participants because the job roles were related to project management; project managers were among the highest number of participants. The data showed the surveyed participants had five or more years of financial industry experience, a requirement of participants. The data also showed that participants had financial industry experience in the United States, as well as project management experience – another

requirement to participate in the survey. The results of the data addressed and validated the requirements of the survey.

Table 7

Respondents Demographic Data – Years of Experience

Experience	Responses
Financial industry work experience	100%
5 or more years of financial industry experience	100%
Financial industry experience in the United States	87.50%
Financial industry experience in the United States and other country	12.50%
Project management work experience	100%
2 or more years of project management work experience	100%

Analysis of Data

The analysis of the data for the central research question and subset of questions provides significant or insignificant relationship summarized and concluded in Chapter 5. The analysis in this section only conveys the relationships among the research questions used in the survey, the data, and the emerged themes. Each data component is followed by an analysis of the elements collected.

The analysis of the data contains responses with direction (positive or negative) and intensity (mild or strong). Positive and negative directions either affirmed or negated the questions, respectively. Mild and strong intensities either mildly or strongly supported the directions, respectively. The data also shows that a high number of references addressed the operational risk, PMO effectiveness, and maturity levels of PMOs themes and corresponding sub-themes.

Emerged Themes and Sub-Themes

Table 8 shows the data collected using NVivo software program, which was used to code and summarize the emerged themes. Each emerged theme was triangulated with document (journals) sources. Six themes resulted from the study, and each theme generated a set of sub-themes described in each corresponding section.

Table 8

Themes Emerged from the Study

Emerged Themes	Sources	References
Theme 1: Operational Risk	3	260
Theme 2: Regulatory groups	1	21
Theme 3: Characteristics of PMO Structures with perceived influence on operational risk	3	19
Theme 4: Optimal PMO Structures	5	19
Theme 5: PMO effectiveness	2	46
Theme 6: Maturity levels of PMOs	3	38

Theme 1: Operational Risk

The analysis of the data helped generate the operational risk theme and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. Three document sources were used to triangulate the results of the theme.

Credit and market risks. Table 9 shows the results of the data relevant to the operational risk theme, and the credit and market risks sub-theme: 1) Negative direction with strong and mild intensities that no attention has been given to operational risk than credit and market risks. Participant 2 in the study conveyed "Operational risk has received a specific amount of attention only as far as the regulators mandate." 2) Negative direction with strong intensity that operational risk has been overlooked. 3) Negative direction with mild intensity that slight attention has been given to operational risk than credit and market risks.

PMO structures to reduce operational. Participant 2 in the study conveyed "The PMO structures I've worked under in the banking industry were very effective in reducing operational risk." Table 10 shows positive direction with strong intensity for all components of the operational risk theme, and the PMO structures to reduce operational risk sub-theme. The data shows that respondents viewed operational risk as an important component (coupled with various factors) for financial organizations, as shown in Table 10.

Table 9

Operational Risk vs. Market and Credit Risks

Data Results	Sources
Theme 1: Operational Risk	3
Operational risk vs. market and credit risk	1
No attention to operational risk	1
Negative	1
Strong	1
Mild	1
Overlooked	1
Negative	1
Strong	1
Slight attention to operational risk	1
Negative	1
Mild	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Impact of PMO structures. Table 11 shows the results of the data relevant to the operational risk theme, and the impact of PMO structures sub-theme. Participant 5 in the study conveyed "Centralized project management with consistent methodology brings projects to successful completion more often." 1) With positive direction and strong intensity for

centralized project management; 2) with positive direction and strong intensity for producing well managed PMO groups; 3) with positive direction and strong intensity for projects delivered on time and with quality; 4) with positive direction and strong intensity for governance impact on issues and changes addressed quickly; and 5) with positive direction and strong intensity for saving resources and time and reducing confusion.

Table 10

PMO Structures to Reduce Operational Risk

Data Results	Sources
Theme 1: Operational Risk	3
PMO structures to reduce operational risk	1
PMO structures do help reduce operational risk	1
Yes, but with proper oversight	1
Yes, but with chief risk officer support	1
Yes, but with Board of Directors support	1
Yes, but with C level officers support	1
Yes, if aligned with proper culture and code of ethics	1
Yes, if PMO reaches proper maturity levels	1
Yes, with management commitment to meet regulatory deadlines	1
Yes, if PMO leads development teams and projects	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows only positive direction and strong intensity (not shown) for all themes. The data also shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

PMO structures to reduce operational risk. Table 12 shows the results of the data relevant to the operational risk theme, and the PMO structures to reduce operational risk sub-theme. Participant 7 in the study conveyed "The structures should be simple and easy to follow, complexity is the enemy here. With well defined, simple standards which are carefully monitored and controlled operational risk can be reduced." 1) With positive direction and strong

and mild intensities, PMO structures can reduce operational risk. With positive direction and strong intensity, data also shows that PMO structures can reduce operational risk but 2) with proper controls in place; 3) with proper resources; 4) with consistent methodology; and 5) if coupled with other efforts. The data shows positive support of PMO structures in helping reduce operational risk.

Table 11

Impact of PMO Structures to Reduce Operational Risk in Your Organization

Data Results	Sources
Theme 1: Operational Risk	3
Impact of PMO structures to reduce operational risk in your organization	1
No impact	1
Positive	1
Mild	1
Negative	1
Mild	1
Centralized project management	1
Positive	1
Strong	1
Well managed PMO groups	1
Positive	1
Strong	1
Projects delivered on time and with quality	1
Positive	1
Strong	1
Governance impact on issues and changes addressed quickly	1
Positive	1
Strong	1
Saves resources and time and reduces confusion	1
Positive	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Table 12

Experience with PMO Structures to Reduce Operational Risk

Data Results	Sources
Theme 1: Operational Risk	3
Experience with PMO structures to reduce operational risk	1
Can reduce operational risk	1
Positive	1
Strong	1
Mild	1
Can reduce operational risk with proper controls in place	1
Positive	1
Strong	1
Can reduce operational risk with proper resources in place	1
Positive	1
Strong	1
Can reduce operational risk with consistent methodology in place	1
Positive	1
Strong	1
Can reduce operational risk if coupled with other efforts	1
Positive	1
Strong	1
Can reduce operational risk when meeting regulatory deadlines	1
Positive	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

PMO structures to help reduce financial collapses. Table 13 shows the results of the data relevant to the operational risk theme, and the PMO structures to help reduce financial collapses sub-theme. 1) With negative direction and strong intensity, PMO structures are not very helpful, and 2) with negative direction and strong intensity, PMO structures are dependent on other factors beyond those structures. 3) With positive direction and mild intensity, PMO

structures are slightly helpful; 4) with positive direction and mild intensity, PMO structures are moderately helpful; and 5) with positive direction and strong intensity, PMO structures are helpful with regulatory mandates.

Table 13

PMO Structures Helpful in Reducing a Financial Collapse

Data Results	Sources
Theme 1: Operational Risk	3
PMO structures helpful in reducing a financial collapse	1
Not very helpful	1
Negative	1
Strong	1
Dependent on other factors beyond PMO structures	1
Negative	1
Strong	1
Slightly helpful	1
Positive	1
Mild	1
Moderately helpful	1
Positive	1
Mild	1
Yes but with regulatory mandates	1
Positive	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. Three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Participant 1 in the study conveyed "Less confusion and better communication would guard against another banking collapse." Participant 2 indicated that "The PMO structure in and of itself would not reduce the risk of another banking collapse without the necessary regulatory

mandates." Participant 3 similarly indicated that "This is something which has eluded [sic] to financial industry for a long time."

PMOs and impact on current operations. Table 14 shows the results of the data relevant to the operational risk theme, and the PMOs and impact on current operations sub-theme. Participant 8 in the study conveyed "The current state of my PMO affects some of these areas but not all." 1) With positive direction and strong and mild intensities, and negative direction with mild intensity, PMOs do impact current operations slightly. 2) With positive direction and strong and mild intensities, PMOs positively impact current operations. 3) With negative direction and strong intensity, PMOs do not impact current operations.

PMOs to execute and monitor projects. Table 15 shows the analysis of the data relevant to the operational risk theme, and the PMOs to execute and monitor project sub-theme. Participant 6 in the study conveyed "Strong project managers are useful in executing projects and having them roll into an overall PMO governance helps improve organization and execution." 1) With positive direction and strong intensity, PMOs are useful if appropriate tools and processes are in place; 2) with positive direction and strong intensity, PMOs are useful if made up of strong project managers; and 3) with positive direction and strong intensity, PMOs are useful if supervised, managed, and evaluated regularly. The data showed no negative direction in the usefulness of PMOs in executing and monitoring projects to reduce operational risk.

Theme 2: Regulatory Groups

The analysis of the data helped generate the regulatory groups theme and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. One document source was used for the study to triangulate the results of the theme.

Table 14

PMOs Impacting Current Operations

Data Results	Sources
Theme 1: Operational Risk	3
PMOs impacting current operations	1
Slightly	1
Positive	1
Strong	1
Mild	1
Negative	1
Mild	1
PMOs impact current operations	1
Positive	1
Strong	1
Mild	1
PMOs do not impact current operations	1
Negative	1
Strong	1

Note. The defining of PMOs in respondents' organizations: impacting human, systems, and processes operations, as well as operational risk. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. Three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Regulatory mandates. Table 16 (with sample size of 8) shows the results of the data relevant to the regulatory groups theme, and the regulatory mandates sub-theme. Participant 2 in the study conveyed "I've been involved directly with Basel 2, 2.5 and 3. I believe this will reduce the likelihood of another banking collapse due to the nature of the Basel program." Participant 6 conveyed "Many of the regulators ask Banks [sic] to burn calories that don't add value either to the organization, the Regulators [sic] or the system and implementation is a cost burden for shareholders." 1) With negative direction and strong intensity, regulatory mandates

received a doubtful response from respondents; 2) with negative direction and strong intensity, respondents indicated that mandates were hard to implement; and 3) with positive direction and strong intensity, respondents indicated that structures can reduce risk levels and financial collapses.

Table 15

PMOs Useful to Execute and Monitor Projects in Reducing Operational Risk

Data Results	Sources
Theme 1: Operational Risk	3
PMOs to execute and monitor projects to reduce operational risk	1
Yes, if appropriate tools and processes are in place	1
Positive	1
Strong	1
Yes, if made up of strong project managers	1
Positive	1
Strong	1
Yes, useful	1
Positive	1
Strong	1
Mild	1
Yes, if supervised, managed, and evaluated regularly	1
Positive	1
Strong	1

Note. PMOs are useful in executing and monitoring projects to reduce operational risk. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data also shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

PMO structures as regulatory mandates. Table 17 shows the results of the data relevant to the regulatory groups theme, and the PMO structures as regulatory mandates sub-theme. 1) With positive direction and strong intensity, PMO structures should become

regulatory mandates; participant 2 in the study conveyed "I believe a PMO structure is necessary to reduce operational risk, and that most likely many banks will have already recognized the need for it." 2) With negative direction and strong and mild intensity, respondents doubted that PMO structures should become regulatory mandates; participant 4 in the study conveyed "Cynical, greedy people will look for and find ways to subvert and circumvent regulations they perceive to be constraints on their 'freedom'." 3) With positive direction and mild intensive response, respondents considered PMO structures as possible (perhaps) regulatory mandates; participant 1 in the study conveyed "Would be helpful to implement PMOs. Not sure if they should be mandated."

Table 16

Regulatory Groups to Reduce Risk Levels and Perceived Financial Collapses

Data Results	Sources
Theme 2: Regulatory groups	1
Regulatory groups to reduce risk levels and perceived financial collapse	1
Doubtful	1
Negative	1
Strong	1
Yes, but hard to implement	1
Negative	1
Strong	1
Yes, it can reduce risk levels and perceived financial collapse	1
Positive	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that one document (source) was used for the study to triangulate the results of the emerged theme. Sample size = 8.

Integrating PMOs with BCBC mandates. Table 18 shows the results of the data relevant to the regulatory groups theme, and the integration of PMOs with BCBC mandates sub-

theme. 1) With negative direction and strong intensity, BCBS mandates were viewed as too intrusive to help reduce operational risk; participant 4 in the study conveyed "As long as risk takers aren't held personally at risk, and aren't held to account, regulators have little to no effect." 2) With positive direction and mild intensity, BCBS mandates were viewed as doubtful in helping reduce operational risk. 3) With positive direction and strong intensive response, BCBS mandates were viewed as helpful in helping reduce operational risk; participant 2 in the study conveyed "I believe the Basel accord is necessary to reduce the likelihood of another banking collapse. The debate has more to do with the level of capital reserves and the complexity of the formulas." 4) With negative direction and strong intensity, BCBS mandates were viewed as not helpful in helping reduce operational risk.

Table 17

PMO Structures as Regulatory Mandates

Data Results	Sources
Theme 2: Regulatory groups	1
PMO structures as regulatory mandates	1
Yes	1
Positive	1
Strong	1
Doubtful	1
Negative	1
Strong	1
Mild	1
Perhaps	1
Positive	1
Mild	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that one document (source) was used for the study to triangulate the results of the emerged theme. Sample size = 8.

Table 18

Integrating PMOs with BCBS Mandates

Data Results	Sources
Theme 2: Regulatory groups	1
Integrating PMOs with BCBS mandates	1
Too intrusive	1
Negative	1
Strong	1
Doubtful	1
Positive	1
Mild	1
May be helpful	1
Positive	1
Strong	1
Mild	1
Not helpful	1
Negative	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that one document (source) was used for the study to triangulate the results of the emerged theme. Sample size = 8.

BCBS to help reduce operational risk. Table 19 shows the results of the data relevant to the regulatory groups theme, and the BCBS to help reduce operational risk sub-theme. 1) With negative direction and mild intensity, BCBS mandates to have PMO structures as part of its frameworks were viewed as doubtful in helping reduce operational risk; participant 8 in the study conveyed "I'm sure these accords have reduced some risks, but they do not go far enough in controlling the banking products that bring down or [sic] financial systems." 2) With positive direction and strong and mild intensities, BCBS mandates to have PMO structures as part of its

frameworks were viewed as helpful in reducing operational risk; participant 4 in the study conveyed "Doubtful, but it couldn't hurt. We tend to vilify 'whistle-blowers'."

Table 19

BCBS in Helping Reduce Operational Risk

Data Results	Sources
Theme 2: Regulatory groups	1
BCBS to help reduce operational risk	1
Doubtful it would help reduce operational risk	1
Negative	1
Mild	1
Helps reduce operational risk	1
Positive	1
Strong	1
Mild	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that one document (source) was used for the study to triangulate the results of the emerged theme. Sample size = 8.

Theme 3: Characteristics of PMO Structures

The analysis of the data helped generate characteristics of PMO structures themes and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. Three document sources were used for the study to triangulate the results of the emerged theme.

PMO structures and perceived influence on operational risk. Table 20 shows the results of the data relevant to the characteristics of PMO structures theme, and the perceived influence on operational risk sub-theme. The data shows only positive direction and strong intensity (not shown) for all recommended characteristics of PMO structures. The data also shows that three document sources were used to triangulate the results of the emerged theme.

Table 20

Characteristics of PMO Structures with Perceived Influence on Operational Risk

Data Results	Sources
Theme 3: Characteristics of PMO Structures with perceived influence on operational risk	3
Risk management in place	1
Project risk analysis meetings	1
Project risks escalated at program level	1
Standardized PMO	1
Characteristics identified early	1
Enterprise direction and strategy	1
Focus on core processes of business	1
Plan, assess, and report risks continually	1
Periodic review of risk assessments	1
Periodic report of risk assessments	1
Meeting milestones	1
Projects within budget	1
Satisfied customers	1
Good communications	1
Deliverables that meet requirements	1
Corporate function participation in programs	1
Strong senior management support from all lines of businesses (LOBs)	1
Project risks with mitigation plans	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Theme 4: Optimal PMO Structures

The analysis of the data helped generate the optimal PMO structures theme and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. Three document sources were used for the study to triangulate the results of the emerged theme.

Existence of optimal PMO structures. Table 21 shows the results of the data relevant to the optimal PMO structures theme, and the existence of optimal PMO structures sub-theme. 1) With positive direction and strong intensity, the data showed the existence of optimal PMO structures. 2) With positive direction and strong and mild intensities, data showed that no optimal PMO structures exist. Participant 3 in the study conveyed "PMO must have an ongoing connection (monthly, quarterly) reporting to Senior Executives, coordinated by a C-level executive." The data also shows that five document sources were used for the study to triangulate the results of the emerged theme.

Table 21

Existence of Optimal PMO Structures

Data Results	Sources
Theme 4: Optimal PMO Structures	5
Existence of Optimal PMO Structures	1
Several structures exist	1
Positive	1
Strong	1
No optimal structures exists	1
Positive	1
Strong	1
Mild	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data also shows that five documents (sources) were used the study to triangulate the results of the emerged theme. Sample size = 8.

Achieving optimal PMO structures. Table 22 shows the results of the data relevant to the optimal PMO structures theme, and the achievement of optimal PMO structures sub-theme. 1) With positive direction and strong intensity, data showed that an optimal PMO structure can be achieved. 2) With negative direction and mild intensity, data showed that an optimal PMO

structure cannot be achieved. Participant 4 in the study conveyed "It's not clear that it's possible. I've never seen one in a financial institution." The data also shows that five document sources were used for the study to triangulate the results of the emerged theme.

Table 22

Achieving Optimal PMO Structures

Data Results	Sources
Theme 4: Optimal PMO Structures	5
Achievement of Optimal PMO Structures	1
Yes	1
Positive	1
Strong	1
No	1
Negative	1
Mild	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data also shows that five documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Theme 5: PMO Effectiveness

The analysis of the data generated the PMO effectiveness theme and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. Two document sources were used for the study to triangulate the results of the emerged theme.

Describing PMO effectiveness. Table 23 shows the results of the data relevant to the PMO effectiveness theme, and the descriptions of PMO effectiveness sub-theme. The data shows only positive direction and strong intensity (not shown) for all areas of PMO

effectiveness. The data also shows that two document sources were used for the study to triangulate the results of the emerged theme.

Table 23

Describing PMO Effectiveness

Data Results	Sources
Theme 5: PMO effectiveness	2
Describe PMO Effectiveness	1
Adds value	1
Improves skills or staff	1
Less documentation is better	1
Effective financial risk management	1
Skilled project managers	1
Linked to corporate profitability and mission	1
Composed of tools, processes, procedures and governance	1
Participates in governance for project selection	1
Keeps stakeholders informed	1
Meeting milestones	1
Good communications	1
Deliverables that meet requirements	1
Projects within budget	1
Satisfied customers	1

Note. The data shows only positive direction and strong intensity (not shown) for all areas of PMO effectiveness. The data also shows that two documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Criteria to measure PMO effectiveness. Table 24 shows the results of the data relevant to the PMO effectiveness theme, and the criteria to measure PMO effectiveness sub-theme. The data shows only positive direction and strong intensity (not shown) for all areas of PMO criteria to measure PMO effectiveness. The data also shows that two document sources were used for the study to triangulate the results of the emerged theme.

Table 24

Criteria for PMO Effectiveness

Data Results	Sources
Theme 5: PMO effectiveness	2
Criteria for PMO Effectiveness	1
Projects delivered within time and budget	1
Realized benefits	1
Portfolio performance and measures	1
Meeting business requirements	1
Ongoing communications	1
Lessons learned results	1
Survey results at end of projects	1
Number of audits or litigations	1
Corporate reputation	1
Project prioritization	1
Adoption of PMO tools	1
Execution of PMO processes	1
Implementation of PMO governance model	1

Note. The data shows only positive direction and strong intensity (not shown) for every criteria used to measure PMO effectiveness. The data also shows that two documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Metrics to measure PMO effectiveness. Table 25 shows the results of the data relevant to the PMO effectiveness theme, and the metrics to measure PMO effectiveness sub-theme. Data shows positive direction and strong intensity for most areas of PMO criteria to measure PMO effectiveness, and a negative direction and strong intensity for the utilization of automation tools. The data also shows that two document sources were used for the study to triangulate the results of the emerged theme.

Table 25

Metrics to Measure PMO Effectiveness

Data Results	Sources
Theme 5: PMO effectiveness	2
Metrics for PMO Effectiveness	1
Projects to corporate goals not less than 90%	1
Positive	1
Strong	1
Automated tools	1
Negative	1
Strong	1
Changes conflicting with regulations, laws and ethics	1
Positive	1
Strong	1
Balanced score card	1
Positive	1
Strong	1
Percentage of projects vs. programs delivered	1
Positive	1
Strong	1
Project management formulas to measure effectiveness	1
Positive	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that two documents (sources) were used to triangulate the results of the emerged theme. Sample size = 8.

Theme 6: Maturity Levels of PMOs

The analysis of the data helped generate the maturity levels of PMOs theme and corresponding sub-themes described in this section. The data analysis shows the results found by direction and intensity. Two document sources were used for the study to triangulate the results of the emerged theme. Figure I1 (see Appendix I) shows the results of the data.

Maturity levels to achieve PMO excellence. Table 26 shows the results of the data relevant to the maturity levels of PMOs theme, and the maturity levels to achieve PMO excellence sub-theme. The data shows that PMOs are not currently mature since there is a neutral response accompanied by a negative response from participants. The data also shows that three document sources helped triangulate the results of the emerged theme.

Table 26

Maturity Levels of PMOs

Data Results	Sources
Theme 6: Maturity levels of PMOs	3
Neutral	2
Positive	2
Mild	2
Necessary	1
Positive	1
Strong	1
Negative	1
Mild	1
Not Necessary	1
Negative	1
Strong	1

Note. Directions (positive and negative) and intensities (strong and mild) of data with zero values are not shown. The data shows that three documents (sources) were used for the study to triangulate the results of the emerged theme. Sample size = 8.

Chapter Summary

This exploratory case study explored the perceived problem that financial institutions in the United States without Project Management Offices (PMOs) and associated governance groups (such as project management, program management, portfolio management, and risk management) may be facing high operational risks – (a) adversely affecting their business

operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. This exploratory case study also explored and described the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk. The purpose of the exploratory case study focused on exploring how financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) may be generating various levels of operational risk. The first part of the data collection was conducted with a pilot group to capture issues with data collection, protocol structure design, and survey software program. After the data collection, protocol structure design, and survey software program were validated by the pilot group, the data collection process began.

Chapter 4 provided the data collected for this exploratory case study. The results of the closed-ended questions, (demographic information about the respondents) helped validate the experience of the respondents to qualify the data collected. The open-ended questions addressed the central research question and subset questions. The chapter reintroduced the research questions of Chapter 1 and tabulated the results with corresponding themes. The data gathered in SurveyMonkey was analyzed in NVivo to analyze the results into groups of categories and themes that helped produce findings, conclusions, and implications in Chapter 5.

Table 27 shows a summary of the data collection by direction and intensity using major categories, which were the results of coded themes. The results of the data collected will be

interpreted in Chapter 5, which will contain a summary of the exploratory case study, findings, conclusions, and implication, based upon the data collected in this chapter. Chapter 5 will also provide recommendations for future research.

Table 27

Summary of Data Collection Results by Direction and Intensity

Research Questions	Positive Strong	Positive Mild	Negative Strong	Negative Mild
Q8	1(25%)	1(25%)	1(25%)	1(25%)
Q9	2(67%)	1(33%)	0(0%)	0(0%)
Q10	1(50%)	0(0%)	0(0%)	1(50%)
Q11	14(100%)	0(0%)	0(0%)	0(0%)
Q12	13(100%)	0(0%)	0(0%)	0(0%)
Q13	5(83%)	0(0%)	1(17%)	0(0%)
Q14	18(100%)	0(0%)	0(0%)	0(0%)
Q22	1(33%)	0(0%)	2(67%)	0(0%)
Q23	1(25%)	1(25%)	1(25%)	1(25%)
Q24	1(17%)	2(33%)	3(50%)	0(0%)
Q25	1(33%)	1(33%)	0(0%)	(33%)

Note. Q = Question.

Chapter 5

Findings, Conclusions and Implications

Introduction

Chapter 5 will present findings, conclusions, and implications based on the analysis of the survey data supplied in Chapter 4 – and journals from the Project Management Institute (PMI) to support and triangulate the exploratory case study which helped avoid researcher bias. The research consisted of an exploratory case study (qualitative) using a non-traditional survey collection technique to gather data from professionals with project management and financial industry experience in the United States. The non-traditional online survey was necessary because of strict compliance policies at the work place of financial institution leaders (with project management experience) participating in one-on-one interviews. During face-to-face interviews, researchers may inadvertently ask questions that are specific to companies where interviewees work, which could violate compliance policies; online surveys became the better choice to gather data because the questions were not designed to ask for confidential information about specific companies. Chapter 5 contains the following sections: summary of the exploratory case study, findings and conclusions, implications, future research and specific recommendations, and summary.

Summary of the Study

The exploratory case study explored the perceived problem that financial institutions in the United States without Project Management Offices (PMOs) and associated governance groups (such as project management, program management, portfolio management, and risk management) may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and

corporate scandals, and (c) ultimately impacting consumers who may be paying high product costs and service fees. This exploratory case study also explored and described the perceived problem that financial institutions in the United States with PMO structures (PMOs and associated governance groups) that are not included in regulatory frameworks as mandates with oversight and metrics to control and measure the effectiveness of projects and operational structures, may be contributing to the likelihood of another banking collapse because of the perceived impact on operational risk. The purpose of the exploratory case study focused on exploring how financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) may be generating various levels of operational risk.

Chapter 1 contained an introduction to the exploratory case study on the exploration of PMOs and associated governance groups in the reduction of operational risk of financial institutions and provided a recommendation for the Basel Committee on Banking Supervision (BCBS) to include PMO structures in its frameworks as a mandate for financial institutions to follow to comply with the accords. Chapter 2 included the literature review on operational risks that may be causing high financial product costs and service fees and also influencing financial collapses. Chapter 2 included an exploration of the impact of PMO structures of financial institutions' operations and explored common practices of financial and regulatory organizations to reduce operational risk. Chapter 3 provided the research method (qualitative) of the exploratory case study, which included sampling, informed consent, confidentiality agreements, geographic location, data collection, instrumentation, reliability of the data, and analysis plan for the information collected from respondents and documents. Chapter 4 provided the results of the data collection for each emerged theme.

Researcher Bias

One limitation of the exploratory case study was my personal bias because I possess over 10 years of project management experience, and I am a strong advocate of PMO structures for financial organizations. I also possess over 10 years of financial industry experience and work mainly in the project management field. I am a member of the Project Management Institute and hold two project management certifications. A bracketed interview was conducted informally (conversation) with a pilot group of three professionals to help me uncover biases and avoid preconceptions about the case study; no concerns were addressed during the bracketed interview.

College level coders. A face-to-face training session was conducted with two college graduates (coders) to review the categories, themes, codes, direction, and intensity of the data and to avoid issues with misinterpreting or miscoding participants' responses. The coders manually computed the direction and intensity of the responses, and later compared the researcher's results. The researcher also compared the direction and intensity of the responses, and later compared the coders' results. A face-to-face meeting was conducted between the researcher and the coders after analyzing and checking the results to rule out self bias and to ensure the direction and intensity of the codes were reliable.

Qualitative and survey software. Researcher bias was overcome with the use of a software program (SurveyMonkey), which provided the criteria to select and qualify participants in the exploratory case study using a non-traditional online survey collection technique. Researcher bias was also overcome with the use of a sophisticated analytical software program (NVivo) for qualitative data analysis. After qualifying the participants, the data was uploaded into NVivo for qualitative analysis.

Demographics and Responses

Project Management Institute Westchester (PMIW) members were invited to participate in the exploratory case study through a SurveyMonkey software program. The plan was to select 10 or less participants. The survey software program captured and validated 22 responses during the period of January 21, 2014 through February 29, 2014; the survey software program helped validate the responses based on demographic information first then on completion of responses. The survey software program captured 22 entries made up of eight qualified and completed, eight disqualified, and six partially completed responses. This exploratory case study only used eight qualified and completed responses.

Themes and Content Analysis

Journals from the Project Management Institute (PMI) were the secondary sources of data that contributed to the data analysis to triangulate the research questions and avoid researcher bias. The use of content analysis practices helped in the extraction of essential document sources and survey data for the data analysis. Newman (2006) described content analysis as an approach to gather and analyze what is contained in text materials. "The content refers to words, meanings, pictures, symbols, ideas, themes, or any message that can be communicated" (p. 322). The following themes were generated:

- operational risk
- regulatory groups
- characteristics of PMO structures
- optimal PMO structures
- PMO effectiveness
- maturity levels of PMOs

Findings and Conclusions

This section will present findings and conclusions of the data collected from SurveyMonkey survey software program for the exploratory case study. After the survey software captured the data, the results were uploaded to NVivo software program for coding and analysis. This section will contain findings and conclusions for the major themes derived from the research questions through the questions provided in the survey. This section will also contain findings and conclusions found in journals that were used to triangulate the data and avoid researcher bias.

Theme 1: Operational Risk

The exploratory case study was conducted to answer the following research question: How do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) generate various levels of operational risk? The research questions helped generate findings and conclusions for the generated themes. PMI journals also helped generate findings and conclusions for operational risk.

Credit and market risks. The research question helped inquire about whether operational risk has received the same level of attention as credit and market risks. The data showed that respondents considered operational risk had not received the same level of attention as credit and market risks. The data conveyed the necessity for regulatory reforms to place more emphasis on operational risk. The results of the research question revealed and helped conclude that operational risk has been overlooked and slight or no attention has been given in this area of risk. As a result, leaders of financial institutions can see the value of dedicating more attention to operational risk.

PMO structures to reduce operational risk. The research question helped inquire about how helpful the implementations of PMO structures have been in reducing operational risk in respondents' organizations or operational areas of control and influence. The data showed that respondents collectively considered the implementation of PMO structures to be helpful in reducing operational risk in respondents' organizations or operational areas of control and influence. The results of the research question revealed and helped conclude that implementations of PMO structures can be positive instruments in reducing operational risk. As a result, leaders of financial institutions can confidently realize that PMO structures can help reduce operational risk.

Impact of PMO structures. The research question helped inquire about the impact of PMO structures in reducing operational risk in respondents' organizations. The data showed several areas of impact to reduce operational risk such as *centralized project management, well managed PMOs, projects delivered on time and with quality, governance impact on issue and changes addressed quickly, saves resources and time and reduces confusion*. 14% showed both positive and negative mild responses for no impact, while 72% provided several areas of positive and strong impact. The results of the research question revealed and helped conclude that PMO structures have various areas of impact to help reduce operational risk that would help leaders of financial institutions understand the value of those structures.

PMO implementations to reduce operational risk. The research question helped inquire about respondents' experience or point of view regarding PMO structures in helping reduce operational risk. The data showed several experiences with PMO structures in helping reduce operational risk (a) with proper controls and resources in place, (b) with consistent methodology, (c) if coupled with other efforts, and (d) when meeting regulatory deadlines. 86%

provided positive with strong responses for the reduction of operational risk, while 14% showed positive with mild responses. The results of the research question revealed and helped conclude that PMO structures can reduce operational risk when structured with consistent methodology, appropriate controls and resources, as well as when meeting regulatory deadlines.

PMO structures to help reduce financial collapses. The research question helped inquire about PMO structures in reducing operational risk, and the level of influence to the entire financial system in helping reduce banking collapses. The data showed negative with strong responses (40%) that the reduction of banking collapses could be influenced by PMO structures but dependent on other factors (not provided by participants). The data also showed positive and mild responses (40%) that the reduction of banking collapses could be influenced by PMO structures. The last 20% of the data showed positive with strong results on PMO structures reducing financial collapses when operating under regulatory mandates. The results of the research question revealed and helped conclude that PMO structures can reduce financial collapses when combined with other factors or regulatory mandates.

PMOs and impact on current operations. The research question helped inquire about defining PMOs in respondents' organizations in terms of impacting human, systems, and processes operations, as well as operational risk. The data showed positive with strong and mild responses (33% each) and negative with strong and mild responses (17% each) that PMOs impact current operations. The results of the research question revealed and helped conclude a strong impact of PMOs in all operational areas. Leaders of financial institutions can realize that PMOs have a strong impact on operations.

PMOs to execute and monitor projects. The research question helped inquire about PMOs usefulness in executing and monitoring projects in reducing operational risk. The data

showed positive with strong responses (100%) that PMOs were useful in executing and monitoring projects in reducing operational risk. The results of the research question revealed and helped conclude that PMOs are necessary in the execution and monitoring of projects that can help reduce operational risk. Leaders of financial institutions can realize the value of PMOs in executing and monitoring projects in reducing operational risk.

Operational risk and the literature review. Operational risk needs the same level of attention as market and credit risks. As indicated by Dey (2009) and presented in the literature review of this study, conventional risk management practices address business risks (market and credit risk) but with less emphasis on operational risk. When addressing operational risk, financial organizations define operational risk management as the proper managing of systems, people, and resources to reduce the impact of risk to the organization (Jobst, 2007).

Because the managing of systems, people, and resources is directly connected to operational risk, financial organizations should give more attention to operational risk (than market and credit risks) through regulatory reforms with PMO structures. PMO structures and implementations may help a) reduce operational risk, b) positively impact operational risk and current operations, c) reduce financial collapses, and d) execute and monitor projects. As conveyed and presented in the literature review of this study, Aubry and Hobbs (2011) provided evidence of PMO contribution to organizational performance. In the same way, PMOs may be of benefit in reducing operational risk levels of financial institutions.

Theme 2: Regulatory Groups

The exploratory case study was conducted to also answer the following research question: What is the perceived impact of integrating PMO structures in the BCBS Basel framework in reducing operational risk? The research questions helped generate findings and

conclusions for the generated themes. PMI journals also helped generate findings and conclusions for the generated themes in this study.

Regulatory mandates. The research question helped inquire whether regulatory structures (mandates) or Acts such as the Volker Rule, Dodd-Frank Act, and the new Basel III accord have been or will be able to reduce risk levels and uncertainty to reduce the perceived likelihood of another banking collapse. The data showed negative with strong (67%) and positive with strong (33%) responses that existing regulatory structures have been or will be able to reduce risk levels and uncertainty to reduce the perceived likelihood of another banking collapse. The results of the research question revealed and helped conclude that most individuals do not trust regulatory mandates in doing anything to reduce risk levels of financial institutions that would eventually lead to another banking collapse. The results of the research question also revealed and helped conclude that most individuals are reluctant in believing that regulatory mandates can help reduce operational risk levels (Admati, 2011; Jenkins, 2011; Triana, 2011).

PMO structures as regulatory mandates. The research question helped inquire about PMO structures in becoming a regulatory mandate for financial institutions to implement in their operational structures to help reduce the perceived likelihood of another banking collapse. The data showed that positive with strong (25%), positive with mild (25%), negative with strong (25%), and negative with mild (25%) responses for PMO structures to become part of regulatory mandates. The data showed reluctance and strong with mild acceptances of PMOs becoming a regulatory mandate for financial institutions. The results of the research question revealed and helped conclude the need of more trust in the regulators' capacity to implement mandates that would help the reduction of operational risk and the likelihood of another banking collapse.

Integrating PMOs with BCBS mandates. The research question helped inquire about respondents' experience or point of view regarding the Basel III accord of the Basel Committee on Banking Supervision (BCBS) in helping reduce operational risk. The data showed positive with strong (17%), positive with mild (33%), and negative with strong (50%) responses in accepting that the BCBS mandates had helped in the reduction of operational risk. The results of the research question revealed and helped conclude that the BCBS has not been effective with its mandates in helping reduce operational risk.

BCBS to help reduce risk. The research question helped inquire about respondents' experience or point of view regarding the Basel Committee on Banking Supervision in (BCBS) in mandating PMO structures to become part of its frameworks. The data showed that positive with strong (33%), positive with mild (33%), and negative with mild (33%) responses for PMO structures to become part of the BCBS frameworks. The results of the research question revealed and helped conclude some level of acceptance (66%) of PMOs in becoming part of the BCBS frameworks.

Regulatory groups and the literature review. Regulatory mandates such as the Volker Rule, Dodd-Frank Act, and the new Basel III (under the BCBS confines) were created with attempts to reduce the likelihood of another financial collapse. BCBS's purpose is to help with banking supervisory issues of financial institutions worldwide. As indicated in the literature review, bank capital rules such as Basel Capital Accord continue to be rewritten in an emphasis to require more capital reserves from financial institutions.

Jenkins (2011) provided justifications for removing Basel; Triana (2011) proposed to impose harsher capital requirements to back balance sheets; Admati (2011) included justifications for not easing capital rules; and Moddie (2009) indicated that ". . . it is first

necessary to conduct in-depth analysis of examples of where rogue trading has occurred in the past" (p. 169), which conveyed the necessity to have central control systems for the development of rogue trading analysis monitored and managed using internal governance groups. Cecchetti (2010), the economic adviser and head of the Monetary and Economic Department of the Bank of International Settlements (BCBS is one of its committees), provided convincing remarks about increasing capital and liquidity standards for Basel III and indicated that "Left to their own devices, banks hold too little capital and too little liquidity" (p. 2). Bartlett (2012) conveyed that ". . . if a bank's liquid reserves and assets are insufficient to meet depositors' demand, a sudden withdrawal of funds by depositors may cause a liquidity crisis for the bank" (p. 303). Austill (2011) conveyed that the Volker rule may not be sufficient to protect consumers or solve the financial crisis dilemma, concluded that "Dodd-Frank may attempt to legislate competency and transparency in financial decisions, but it is unlikely to succeed on its own" (p. 70), and indicated that ". . . diligence, integrity, trust, and discernment are ethical virtues a firm, its managers, and regulators must have to satisfactorily reduce the risk of injury to their stakeholders and the public" (p. 70).

The literature review, as well as the findings and conclusions in this study, provided provocative insights that conveyed the need for more governance at individual financial institutions through the integration of PMOs in the Basel frameworks for financial institutions to maintain as part of their corporate infrastructures. Aubry, Müller, and Glückler (2011) indicated that (as cited in Crawford & Cooke-Davies, 2005; Müller, 2009), "Project management and its governance is a subset of corporate governance" (p. 43), which helped convey (and support) the importance of the establishment of PMOs and associated governance groups in financial organizations. Project management can play a strategic role in corporate governance mandates

to be part of the Basel accords and in future regulatory rules that mandate changes to corporate governance structures.

As indicated in the literature review, undetected control errors may be the main problem that facilitates fraud, but well structured PMOs with associated governance groups may detect unstable systems or processes until they reach acceptable maturity levels, the result of repeatable processes. Regulatory groups do not have PMOs in the Basel accord to support its mission of improving the banking sector, risk management and governance, as well as strengthening banks' transparency and disclosures (BIS, para. 1). In a study of four organizations, Aubry and Hobbs (2011) provided evidence of PMO contribution to organizational performance. In the same way, PMOs may be of benefit in reducing operational risk levels of financial institutions. Regulators and organizational leaders should look to partner with global standard groups, such as the Project Management Institute (PMI), to help mitigate another financial collapse through the implementation of project management practices.

Themes 3: Characteristics of PMO Structures

The exploratory case study was conducted to answer the following subset of research questions: What are the characteristics of PMO structures that may have perceived influence on operational risk? The data analysis provided the results coded by direction and intensity for each research question. The research question helped generate findings and conclusions for the generated theme. PMI journals also helped generate findings and conclusions for this exploratory case study.

PMO structures and perceived influence on operational risk. The research question helped inquire about characteristics of PMO structures that have perceived influence on operational risk. The respondents contributed a total of 18 characteristics with positive and

strong responses (100%). The respondents conveyed that those characteristics largely influence operational risk levels in financial institutions. The results of the research question revealed and helped conclude the strong effect of PMO structures in reducing operational risk.

Characteristics of PMO structures and the literature review. Several characteristics of PMO structures were found in the study. The literature review provided a few characteristics. Brinkerhoff (2005) conveyed that "In today's globally competitive changing market and constant technological advancement, training is a given. Doing training well – getting results from learning investments – is a must, not a choice" (p. 86).

Documentation is another characteristic of PMO structures. Ofori (2013) conveyed the need of project documentation when managing projects. The findings and conclusions provided for more characteristics of PMO structures that addressed research gaps in the literature review of this study. Internal categories of operational risk (process, people, and system) identified by Jobst (2007) in the literature review may be addressed through project management training and documentations, which define characteristics of PMO structures.

Theme 4: Optimal PMO Structures

The exploratory case study was conducted to answer the following subset of research questions: What factors need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions? The data analysis provided the results coded by direction and intensity for each research question. The research question helped generate findings and conclusions for the generated themes. PMI journals also helped generate findings and conclusions for this exploratory case study.

Existence of optimal PMO structures. The research question helped inquire about defining the existence or non-existence of optimal PMO structures. The data showed positive

with strong (67%) and positive with mild (33%) responses of the existence of optimal PMO structures. The results of the research question revealed and helped conclude that optimal PMO structures do exist.

Achieving optimal PMO structures. The research question helped inquire about the possibility of achieving optimal PMO structures. The data showed positive with strong (50%) and negative with mild (50%) responses that optimal PMO structures can be achieved. The results of the research question revealed and helped conclude that optimal PMO structures can be achieved.

Optimal PMO structures and the literature review. The results of this study conveyed that optimal PMO structures do exist and can be achieved. Aubry, Müller, and Glückler (2011) indicated that (as cited in Crawford & Cooke-Davies, 2005; Müller, 2009), "Project management and its governance is a subset of corporate governance" (p. 43), which helped convey (and support) the importance, existence and achievement of optimal PMO structures in financial organizations. Project management can play a strategic role in future regulatory rules that mandate changes to corporate governance structures. The conclusions in this study provided the answers to the research gaps mentioned in the literature review of this study.

Theme 5: PMO Effectiveness

The exploratory case study was conducted to answer the following subset of research questions: What criteria can be used to measure PMO effectiveness? The data analysis provided the results coded by direction and intensity for each research question. The research question helped generate findings and conclusions for the generated themes. PMI journals also helped generate findings and conclusions for this exploratory case study.

Describing PMO effectiveness. The research question helped inquire about describing PMO effectiveness. The data showed positive with strong (100%) responses that described several areas or attributes of PMO effectiveness (e.g., good communication, adding value, and effective financial risk management, to name a few). The results of the research question revealed and helped conclude the value and effectiveness of PMO structures in financial institutions.

Criteria to measure PMO effectiveness. The research question helped inquire about providing criteria that can be used to measure PMO effectiveness. The data showed positive with strong (100%) responses that provided criteria for PMO effectiveness. The results of the research question revealed and helped conclude that various criteria can be used to measure PMO effectiveness.

Metrics to measure PMO effectiveness. The research question helped inquire about the types of metrics that would help measure PMO effectiveness. The data showed positive with strong (83%) and negative with strong (17%) responses that provided specific metrics for PMO effectiveness. The results of the research question revealed and helped conclude that metrics can be used to measure PMO effectiveness.

PMO effectiveness and the literature review. The findings and conclusions provided answers to research gaps mentioned in the literature review of this study. Ward and Daniel (2013) concluded that ". . . a PMO can contribute to the achievement of those aspects of organizational strategies that depend on delivering project successfully" (p. 328). Aubry and Hobbs (2011) provided evidence of PMO contribution to organizational performance. In the same way, PMOs may be of benefit in reducing operational risk levels of financial institutions.

As conveyed in the literature review, effective PMO structures allow for greater corroboration and collaboration amongst its members so early warning indicators are more prevalent and easier to manage; provide for greater efficiency in decision-making and, during periods of great volatility, provide more reasons and better rationale in reaching decisions; can be more agile and faster to change in this evolving world or exponentially expanding e-commerce and make detecting the potential for another meltdown even more acute – so the case for them is compelling.

Theme 6: Maturity Levels of PMOs

The exploratory case study was conducted to answer the following subset of research questions: What are the maturity levels of PMOs? The data analysis provided the results coded by direction and intensity for each research question. The research question helped generate findings and conclusions for the generated theme. PMI journals also helped generate findings and conclusions for this exploratory case study. The data shows that 12.50% of the participants believed that Level 1 maturity level must be part of a PMO, 37.50% Level 2, 25.00% Level 3, and 25.00% Level 4, respectively.

Maturity levels to achieve PMO excellence. The research question helped inquire about maturity levels necessary to achieve PMO excellence. The data showed positive with strong (25%), positive with mild (25%), negative with strong (25%), and negative with mild (25%) responses in questioning the acceptance or reluctance to achieve PMO excellence. The results of the question revealed and helped conclude that a lack of trust exists in financial institutions to achieve PMO excellence due to operational risk.

Maturity levels of PMO structures and the literature review. The findings and conclusions provided the answers to the research gaps in the literature review of this study.

PMO maturity levels can be achieved when addressing internal and external categories of operational risk. Jobst (2007) identified internal and external categories of operational risk and categorized operational risk into three components that included process, people, and systems. Maturity levels can be achieved when the categories of operational risk (people, processes, and systems) form part of PMO structures.

Program management governance is another component of PMO structures in need to reach maturity levels. In a study to measure program success (as cited in Maylor, et al.), Müller, Shao, and Turner (2012) differentiated project management as one that ". . . focuses on performance at the tactical level, like meeting the requirements of time, cost, and quality, whereas program management takes a more holistic perspective in order to bring about the fundamental and transformational changes in organization" (p. 37). At the tactical level, project management concerns the attributes of time, cost, and quality, which if not managed, may contribute to operational risk. As indicated in the literature review, at the holistic level, program management may bring the same benefits to an organization in terms of managing operational risk, but with the added benefit of holistically realizing strategic objectives (Thiry, 2002).

IT Portfolio governance is a component of PMO structures in need to reach maturity levels. As discussed in the literature review, Bouraad (2011) conveyed the importance of IT portfolio governance and that of operation manager's preparedness in knowledge and managerial skills in creating strategic business alignment for organizations; furthermore, Bouraad categorized IT activities into eight sub-activities, forming a list of essential IT business processes, such as IT human resources management, IT relationship management, IT organizational management, IT technology management, IT risk management, IT quality management, IT financial management, and IT procurement management. The operation

manager competencies, and IT service management sub-functions, Bouraad affirmed, facilitate project success and overall company performance. As discussed in the literature review, Michiel (2014) indicated that "The incorporation of governance into the project field reflects a widening of focus away from the day-to-day technical, operational and supporting activities that need to be fulfilled to ensure the delivery of project outcomes" (p. 23). IT portfolio governance is an essential component to the overall PMO structure in need to reach maturity levels that may facilitate the reduction of operational risk in financial organizations.

Enterprise risk management (ERM) is the *umbrella* that covers the integrated efforts of managing risks in organizations. Because the concept is too broad, the exploratory case study covered a component of ERM, the PMO and associated governance groups. In summary and as discussed in the literature review, all governance groups work in unison to reduce operational risk. Subramaniam, McManus, and Zhang (2009) conveyed that ". . . specialist boards such as a RMC will be able to devote more time and effort towards integrating the various risks organisation-wide and evaluating the related controls as a whole" (p. 320). In the case of enterprise risk management, most of the governance groups fall under its umbrella, including PMOs, program management, and project management. An enterprise risk management can also reach maturity levels and form an integrated governance group that may help reduce operational risk and prevent another banking collapse.

Implications

The specific and perceived problem addressed in this exploratory case study is that financial institutions in the United States without PMO structures may be facing high operational risks – (a) adversely affecting their business operations, (b) affecting the entire financial system by contributing to financial collapses and corporate scandals, and (c) ultimately impacting

consumers who may be paying high product costs and service fees. The specific problem addressed in this exploratory case study also combined the perceived impact of financial organizations with PMO structures in contributing to the same issues mentioned earlier (when such PMO structures are not included in existing regulatory frameworks as mandates such as Basel II and III). The researcher used an online survey hosted by SurveyMonkey with open-ended questions to collect the data and closed-ended questions to qualify participants, as well as published documents from PMI to support the exploratory case study. This section will provide the implications of the study providing practical suggestions or recommendations for addressing the specific and perceived problem addressed in this exploratory case study.

Demonstrate Effectiveness of PMO Structures

The first anticipated result of this exploratory case study was to demonstrate the effectiveness of PMO structures in executing and monitoring projects that would help reduce operational risk and banking failures. The results of the exploratory case study revealed that PMO structures were effective in executing and monitoring projects that would help reduce operational risk. The information that follows provides the results and recommendations.

Characteristics of PMO structures. The results of the exploratory case study and journals revealed strong effects of PMO structures in reducing operational risk. Leaders of financial organizations and regulatory groups must realize the strong effect of PMO structures in reducing operational risk. Leaders of financial institutions should learn about the researched characteristics of PMO structures but also realize that organizational dynamics are strong factors to consider in influencing operational risk levels. The understanding of PMO structure characteristics and risk classes can add value to financial organizations in introducing those structures in the reduction of operational risk.

Research studies conducted by Cooper, Edgett, and Kleinschmidt (2001), and Torok, Nordman, and Lin (2011) – as cited in Thamhain (2013) – suggested that project risks were attributed to ". . . organizational dynamics and multidisciplinary nature that characterizes today's business environment, especially for technology-based developments" (p. 20). This finding suggested and helped conclude that PMO structures are a type of organizational dynamics and are multidisciplinary in nature. Thamhain's conclusions conveyed characteristics of PMO structures support managing of projects that rely on the understanding of organizational dynamics that affect project performance and influence operational risk, and in how well project successes are influenced by management.

Thamhain (2013) provided a list of risk classes derived during interviews and discussions with 100 managers during an exploratory phase. The list of risk classes subsequently served as input to an exploratory research about managing risks in complex projects and demonstrated the cascading and compounding effects of risks on project performance. Participants in this study provided characteristics that had influence on operational risk such as when project risks, under the structure of a PMO, are escalated at the program level.

The conclusions made by Thamhain (2013) were that many organizational tools and techniques exist for early detection of risk, but project managers do not give credit to the tools and techniques to help them deal with risks. Thamhain also concluded that ". . . risks can be managed . . . to be effective, especially in complex project environments, risk management must go beyond analytical methods" (p. 30). PMO structures are essential in reducing operational risk caused by complex projects.

Achieving optimal PMO structures. The results of the exploratory case study revealed that optimal PMO structures do exist and can be achieved. Leaders of financial institutions and

regulatory groups must realize that optimal PMO structures can be achieved, however, with the proper support and effort in helping achieve optimal levels. The journals used for this category and corresponding themes triangulated the results and helped conclude that optimal PMO levels can be achieved; the journals suggested that organizational factors also play an important component in achieving optimal PMO levels. The results of data and journals helped conclude that organizations may have all the controls in place, and regulators may mandate new regulations for financial firms, but if one organizational factor fails or is not improving, and a necessary structure is not in place, the entire organization could fail. A recommendation is to properly support a PMO structure and to consider organizational factors to achieve optimal levels.

A study by Teller (2013) about the contribution of risk management at the portfolio level to achieve project portfolio success conveyed that "The primary purpose of risk management is to safeguard the organization against damage and prepare the organization for potential loss so that it can respond adequately to the materialization of risks" (p. 40) and empirically supported risk management (a PMO structure) to achieve an optimal PMO (portfolio success). Teller supported the idea of managing risk at the portfolio level to holistically compare and understand the commonality and interdependencies of risks and trends among projects to reduce duplication of efforts, make use of synergies, and reduce uncertainty. Teller indiscriminately supported the linkage of project and portfolio risk management. Teller further conveyed an enhanced risk management quality ". . . by improving risk transparency, enhancing risk coping capacity, and facilitating risk management efficiency" (p. 41) to increase portfolio success. Participants in this study provided strong and positive responses in the achievement of optimal PMO structures.

Ives (2005) conducted interviews with managers about organizational factors that impact project success and found several factors of importance including sponsorship and governance, among others. Organizational factors were also studied by various researchers in achieving project success (Hyvari, 2006), as well as project manager's leadership or leadership behavior (Turner & Müller, 2005; Wellman, 2007). Organizational factors are important to every area of financial companies as studied by several researchers (Belassi et al., 2007; Doolen, Hacker, & Van Aken, 2003; Gopalakrishnan & Santoro, 2004; Nahm, Vonderembse, & Koufteros, 2004), though very little research has been done on organizational culture in the area of project management.

PMO effectiveness. The results of the exploratory case study revealed that various criteria and metrics can be used to measure PMO effectiveness. A recommendation is for financial institutions and regulatory groups to use available PMO criteria and metrics to measure PMO effectiveness if the integration of PMO structures will become part of regulatory mandates for financial institutions. Leaders of financial institutions and regulatory groups must realize that criteria and metrics do exist and can be used to measure PMO effectiveness if the integration of PMO structures would become part of regulatory mandates for financial institutions. Criteria and metrics to measure PMO effectiveness do exist in various financial institutions; as a result, the integration of PMO structures within regulatory mandates for financial institutions should be feasible to integrate and comply.

In a study about project management features and the relationship to project performance or effectiveness, Dai and Wells (as cited in Müller, Glückler and Aubry, 2013) concluded that "there is only limited quantitative validation to concepts and propositions regarding PMO performance" (p. 59). Müller, Glückler and Aubry indicated that organizations are finding better

ways to define PMOs for their governance structures in a single and multi-PMO design, conveying a strong influence on operational risk if PMO structures are not clearly defined and controlled by regulatory groups. Participants in this study also described several attributes of PMO effectiveness.

Müller, Glückler and Aubry (2013) identified three PMO roles as criteria to measure PMO performance in the areas of slack (capacity) and innovativeness: serving, controlling, and partnering. Müller, Glückler and Aubry hypothesized that PMOs should engage more in partnering to ". . . enable absorptive capacity and attain sustainable innovativeness" (p. 74). Müller, Glückler and Aubry concluded, however, that more research should be done in the areas of partnering ". . . to build a foundation of innovation and slack resources in project management" (p. 74). Participants in this study provided several criteria for PMO effectiveness.

Maturity levels of PMOs. The results of the exploratory case study revealed that a lack of trust exists in financial institutions to achieve PMO excellence due to operational risk. The results of the study and journals about PMO maturity levels appeared contradictory. The combined results revealed that more research is needed in this area in terms of achieving maturity levels of PMOs. However, when coupled with the results about PMO effectiveness, it can be concluded that PMO maturity levels can be achieved (Yazici, 2009). Leaders of financial institutions and regulatory groups can safely rely on achieving maturity levels of PMOs if the integration of PMO structures would become part of regulatory mandates for financial institutions.

In a study about the role of project management maturity and organizational culture (values, beliefs, and norms), Yazici (2009) conveyed that project maturity and organizational culture had a strong influence in organizational performance which comprises project

performance (efficiency and effectiveness), as well as internal (savings, sales growth, overall business performance) and external (market share, competitive position) business performance. As cited in Yazici (2009), Pricewaterhouse Coopers had reported that companies with mature project management had better project performance. Wheatley (2007) indicated that "there is no one optimum level of maturity that is appropriate for every organization" (p. 14, as cited in Yazici, 2009), creating conflicting findings – according to Yazici who suggested the need for more research regarding maturity levels and organization success in managing projects or project performance and eventually business performance. In a study about longitudinal analysis of project management maturity, Mullaly (2006) also found no evidence of project maturity to organizational success in the areas of competitive advantage indicating ". . . there is still very little empirical information currently available to support their use" (p. 64).

The results of the participants provided specific metrics for PMO effectiveness. The results of respondents and studies found in PMI journals about PMO maturity levels appeared contradictory. The combined results of the research questions and citations suggested that more research may be needed in this area in terms of achieving maturity levels of PMOs.

Postulate to the BCBS to Include PMO structures in Basel Frameworks

Regulatory groups. The second anticipated result of the exploratory case study was to postulate to the BCBS to include PMO structures in its Basel frameworks for financial institutions to adopt as a compliance requirement to stay in business. The results of the exploratory case study revealed that organizational leaders of financial institutions do not trust regulatory mandates in helping reduce risk levels of financial institutions to reduce the likelihood of another banking collapse. The results of the exploratory case study revealed reluctance of organizational leaders in trusting that regulatory mandates can reduce operational risk levels; the

results create opportunities for regulators to develop programs, initiatives, or incentives that would help create trust in the regulatory system.

The results of the exploratory case study also revealed reluctance but mild acceptances of PMOs becoming a regulatory mandate for financial institutions. A recommendation is to build trust in the regulators' capacity to implement mandates that would help in the reduction of operational risk and the likelihood of another banking collapse. Regulatory mandates (Drumond, 2009) are customarily developed but not enforced timely to prevent issues in the financial industry. A recommendation is for mandates to be accompanied with PMO structures for financial industry operations.

The results also revealed that BCBS has not been effective with its mandates in helping reduce operational risk of financial organizations (Wellink, 2010). A recommendation is for regulatory leaders to review the effects of the BCBS mandates in helping reduce operational risk. The results also revealed some level of acceptance of PMOs in becoming part of the BCBS frameworks. Once the BCBS includes recommended PMOs structures in its accords, the implementation of new regulatory mandates by financial institutions would be done using a more structured and disciplined approach, while reducing the chances of another financial collapse through well-structured PMOs and associated governance groups.

Operational risk. The results of the exploratory case study revealed that financial organizations have not provided enough attention to operational risk as credit and market risks and that PMO structures have several areas of impact to help reduce operational risk (Dey, 2009). A recommendation is that new regulatory reforms are created to place more emphasis on operational risk – through the implementation of PMO structures because of the level of impact those structures have on operational risk – when formed with consistent methodology,

appropriate controls and resources, as well as when meeting regulatory deadlines, as revealed by the exploratory case study's results. The results of the exploratory case study revealed that proposed PMO structures can reduce operational risk when combined with other factors or regulatory mandates and that PMO structures have a strong impact in all operational areas and are necessary in executing and monitoring projects.

Operational risk management and its sub-components described in this exploratory case study (people, systems, and processes) play an important role in financial organizations. A recommendation is for operational risk management to be managed and controlled through project management and projects, which in turn can use risk factors and the integration of PMO structures to tightly support enterprise risk management programs. Risk factors and management structures alone, however, cannot address the intricacies of risk management but a collection of factors, including people's attitudes, and operational risk – the backbone of enterprise risk management (Thamhain, 2013). Risk has its effects on project performance and tends to propagate throughout the entire organization if not managed properly. Overall direction and enterprise leadership factors that can affect performance are ". . . policies, procedures, organizational design, work processes, and the overall organizational ambience for project execution and control, an area that probably receives less attention from the top but could potentially influence project performance significantly, and an area that should be investigated further in future research" (Thamhain, p. 29).

Management, employees, and contractors of organizations must recognize enterprise risk management and the different components or factors that contribute to managing operational risk. "Existing business models do not connect well between the strategic and operational subsystems of the firm, and tend to constrain the degree to which risk can be foreseen and

managed proactively at the project level" (Thamhain, 2013, p. 30); Thamhain indicated that it is then important for ". . . management to recognize these variables and their potential impact on the work environment" (p. 30). However, it should be important for regulators and organizational leaders of financial institutions to also recognize the indicated variables. Other factors can also reduce risk such as project management platforms. In conclusion, several factors (a few listed in this study) can affect operational risk including organization's stability, resources, personal rewards, and firm organizational objectives and priorities – that would create an environment that is conducive to cross-functional collaboration.

Future Research and Specific Recommendations

This section contains areas of future research that are necessary to the study of operational risk, a continuous concern to financial institutions. This section also contains specific recommendations about the study. A recommended model provides components, characteristics, criteria and metrics for PMO structures to reduce operational risk based on the results uncovered in this study.

Future Research

Operational risk continues to be a problem for financial institutions. The Board of Governors of the Federal Reserve System (FRS) published its supervisory expectation for capital planning at large Banking Holding Companies (BHCs) which (a) proposed the use of ". . . operational-loss data as a starting point to provide historical perspective, and then incorporate forward-looking elements, idiosyncratic risks, and tail events to estimate losses" (p.26); (b) suggested areas the BHCs fall short including ". . . not being able to show how all their risks were accounted for in their capital planning processes" (p. 41); and (c) pointed out losses ". . . due to inadequate or failed internal processes, people, or systems or from external events" (p.

26). Among other recommendations not listed in this study, the FRS provided recommendations for risk identification, internal controls, and governance – all of which could not be accomplished without a PMO structure.

Further qualitative study research is needed to investigate more factors that may cause operational risk in financial institutions – one factor is the effects of regulatory capital requirement and the impact on operational risk. The effect of risk controls in reducing operational risk is another topic for future qualitative studies. BCBS has not been effective with its mandates in helping reduce operational risk; the addition of PMO structures should help assess the effectiveness of those structures in future qualitative studies. This area has great opportunities to conduct research in future studies after integrating PMO structures in the BCBS frameworks. Finally, future research in other parts of the globe, such as Europe, could confirm the global effect of PMO structures in reducing operational risks in financial institutions.

Specific Recommendations

The results of the exploratory case study provided substantial and convincing results of the general problem – if operational risk is not well managed, it could affect businesses in negative and surprising ways, such as the financial meltdown of 2007-2009. The results of the study also confirmed that the perceived problem of financial institutions in the United States without PMO structures do affect business operations, affect the entire financial system by contributing to financial collapses and corporate scandals, and impact consumers who may be paying high product costs and service fees. The results of the study also confirmed that the perceived and specific problem of financial institutions in the United States with PMO structures not included in regulatory frameworks (as mandates with oversight and metrics to control and

measure the effectiveness of projects and operational structures), do contribute to the likelihood of another banking collapse because of the perceived impact on operational risk.

The results of the study provided substantial and convincing results that financial institutions are in need of regulated PMOs structures. The anticipated result of the exploratory case study (a) demonstrated the effectiveness of PMO structures in executing and monitoring projects that would help reduce operational risk, and (b) helped in the recommendation to postulate to the BCBS to include such structures in its Basel frameworks for financial institutions to adopt as a compliance requirement to stay in business. Organizational leaders of financial institutions could now (as a result) support the implementation of PMOs structures as part of their operational frameworks in helping better manage operational risk associated with financial collapses. Organizational leaders could be able to influence (positively) interest and other financial fees affecting consumers and shareholders in general because of the reduction of operational risk through regulated PMO structures.

A recommended model. A recommendation of this exploratory case study is for the BCBS to mandate that financial institutions in the United States maintain PMO structures to comply with the accords of the committee. The following is a recommended model for mandated PMO structures to reduce operational risk based on the results uncovered in this study. The model contains minimal components for PMO structures and can be coupled with additional components found in future research.

PMO components

- Proper controls and resources in place – integrating controls (i.e., initiating, planning, executing, monitoring, controlling, and closing) and corresponding resources for each component to ensure successful delivery of projects

- Consistent methodology – developing a consistent methodology that can be tested, usable, and reusable
- Coupled with other efforts – developing a PMO that be coupled with other efforts or functions (i.e., risk management, issues management, outsourcing, human resources) to ensure successful alignment of goals and deliverables
- Meeting regulatory deadlines – combining regulatory deadlines in project schedules that can provide effective measurement of those milestones

PMO structures with the following characteristics

- Risk management in place – integrating or liaising with a risk management component to manage projects risks
- Project risk analysis meetings – establishing a cadence of meetings to manage project risk
- Project risks escalated at program level – establishing a process to escalate project risks, which can roll up to senior management reports for visibility and attention
- Standardized PMO – implementing a standardized PMO that is tested for usefulness and value
- Characteristics identified early – identifying timely project characteristics to ensure proper alignment to business objectives and strategy
- Enterprise direction and strategy – ensuring proper alignment of PMO mission and project goals to organization strategy and direction
- Focus on core processes of business – ensuring proper alignment of PMO mission to business processes

- Plan, assess, and report risks continually – ensuring continuous planning, assessment, and reporting of risks to reduce operational risk
- Periodic review of risk assessments – containing a cadence of project risk assessments to reduce operational risk
- Periodic report of risk assessments – containing generation of project risk assessment reports to reduce operational risk
- Meeting milestones – containing performance indicators to ensure milestones are met and delivered on time
- Projects within budget – containing performance indicators to ensure project budgets are met within established criteria
- Satisfied customers – containing success factors to ensure customer satisfaction during the implementation and after the delivery of projects
- Good communications – containing established guidelines and procedures (i.e., communications plan) to communicate with various stakeholders
- Deliverables that meet requirements – containing success factors to ensure project deliverables meet corresponding requirements
- Corporate function participation in programs – engaging corporate stakeholders to ensure participation and support of programs and corresponding projects
- Strong senior management support from all lines of businesses (LOBs) – engaging LOB senior management stakeholders to achieve PMO support and mission
- Project risks with mitigation plans – containing oversight and control of risks to be managed and reported with proper mitigation plans

Elements to ensure PMO Effectiveness

- Adds value – ensuring acceptance of PMO mission to project stakeholders
- Improves skills or staff – ensuring skills are continuously renewed or updated
- Less documentation is better – facilitating more attention to project work and ensuring acceptance of PMO mission through the reduction of project documentation that does not add value
- Effective financial risk management – ensuring project financial attributes are managed according to established success factors to reduce project risk
- Skilled project managers – allowing successful managing of projects by reducing project failure due to lack of project skills
- Linked to corporate profitability and mission – ensuring organizational alignment to established profitability criteria and mission
- Composed of tools, processes, procedures and governance – integrating these interrelated, necessary, and dependable components to achieve PMO effectiveness
- Participates in governance for project selection – permitting a PMO to become effective because project selection criteria used in governance meetings can be continuously assessed against projects
- Keeps stakeholders informed – permitting stakeholders to respond to project needs or progress through established communications plans
- Meeting milestones – creating performance indicators to ensure milestones are met and delivered on time
- Good communications – establishing guidelines and procedures (i.e., communications plan) to communicate with various stakeholders

- Deliverables that meet requirements – establishing success factors to ensure project deliverables meet corresponding requirements
- Projects within budget – creating performance indicators to ensure project budgets are met within established criteria
- Satisfied customers – implementing success factors to ensure customer satisfaction during the implementation and after the delivery of projects

Criteria for PMO Effectiveness

- Projects delivered within time and budget – integrating performance indicators to assess and measure project time and budget to ensure successful delivery of projects
- Realized benefits – integrating success factors to ensure realized benefits of projects
- Portfolio performance and measures – integrating success factors and performance indicators to ensure desired portfolio performance
- Meeting business requirements – integrating success factors and performance indicators to help meet business requirements
- Ongoing communications – ensuring routine communication is properly delivered to a target audience identified in a communications plan
- Lessons learned results – capturing project experience that can be applied to future projects after learning about successes and failures
- Survey results at end of projects – capturing lessons learned at project completion to assess effectiveness of project implementations

- Number of audits or litigations – capturing audits or litigations assessed on projects facilitating management of operational risk
- Corporate reputation – maintaining an effective PMO helps in creating positive corporate reputation because the proper managing of projects could create shareholder value
- Project prioritization – prioritizing projects permit organizations to implement projects that address business, financial, and regulatory objectives
- Adoption of PMO tools – adopting tools permit a PMO to increase its effectiveness when such tools add value in the managing and delivering of projects
- Execution of PMO processes – applying standardized and tested PMO processes permit projects managers to receive the necessary guidance needed to execute and complete project phases and deliverables
- Implementation of PMO governance model – implementing a PMO governance provides a framework of project management guidance and control that permits the managing of operational risk

Metrics to Measure PMO Effectiveness

- Projects to corporate goals not less than 90% – implementing performance indicators to align corporate goals to projects
- Automated tools – implementing automated tools that can assess projects – i.e., tools that can report on project health status through red, amber, and green (RAG) reports

- Changes conflicting with regulations, laws and ethics – providing for the effective control and oversight of changes through proper PMO change management boards
- Balanced score card – supporting the components of balanced scorecards (financial, customer, processes, learning, and growth) to help execute business strategies through the implementation of projects
- Percentage of projects vs. programs delivered – implementing performance indicators to assess project delivery of programs that compare with predefined values of success
- Project management formulas to measure effectiveness –implementing standard and custom formulas that can help measure project effectiveness and success

In addition, recommended in Chapter 2, training is necessary to maintain and acquire new skills. Project management training is essential for the success of a PMO structure to acquire knowledge and expertise about various components that make up a system or process that are necessary to manage projects from beginning to end. Project management training may help improve individual and team performance which may reduce operational risk. Training is necessary to maintain and acquire new skills. Finally, project management documentation is as important as formal and informal project management training is for organizations; project documentation repositories (digital storage) can also help PMO structures become more efficient and effective in the reduction of rework.

Summary

The purpose of this exploratory case study was to explore and describe how financial institutions in the United States without PMOs structures to manage their project operations may

be generating various levels of operational risks. The purpose of the exploratory case study also focused on exploring how financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) may be generating various levels of operational risk. The exploratory case study helped explore whether or not the BCBS regulatory frameworks without a modified pillar for properly structured PMO structures and relevant metrics to measure the effectiveness of projects and structures may be contributing factors of another banking collapse because of the perceived impact on operational risk. This exploratory case study created awareness to financial institutions about how operational risk may impact consumers and shareholders of financial services when regulated PMO structures are not part of organizations' structures, and may help generate operational accountability to create training programs to support those structures.

Despite the availability of tools and techniques to manage projects of all sizes and types, projects can still fail which can produce a ripple effect to the financial system. In a study of new product development projects and the effects of organizational culture, Belassi, Kondra, and Tukel (2007) indicated that U.S. consumer products failed about 95% of the time; Stone and Clancy (2005), in a study of metrics, also indicated that industrial product launches failed 40% of the time. Jayaram and Narasimhan (2007) also concluded the same failures in new product developments.

Projects fail and will continue to fail if the proper components are not in place to ensure organizations are managed cohesively. Cohesiveness applies to having important components in place and when one of those components fail or is missing, the impact will have ripple effects to entire organizations and eventually would cause a financial collapse. This study explored PMOs as important structures for financial organizations and recommended to regulatory groups to

mandate those structures in every financial organization to reduce the likelihood of another financial collapse.

In summary, this exploratory case study helped conclude that financial institutions without well structured PMOs and associated governance groups are experiencing high levels of operational risks affecting consumers of financial services, shareholders, and investors. Financial institutions experiencing high levels of operational risk are contributors of financial collapse situations, elevated banking fees, and corporate scandals. The exploratory case study helped conclude that the integration of PMO structures in the frameworks of financial industry regulators will help reduce operational risk. As proposed in Chapter 1, a project management radar system that is part of a regulatory framework to screen for operational risk activities and corporate scandals of financial institutions is necessary but may be in need of more research once implemented. The results of this exploratory case study conveyed that centralized project management governance and associated governance groups are enablers for regulatory compliance and bankruptcy avoidance, as proposed in Chapter 1.

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Appendix A

Communication to PMIW President

Dear Chapter President,

I am a doctoral student of the University of Phoenix. I am doing a research study about operational risk of financial institutions. I would appreciate the attached invitation be sent to your members on January 21, 2014. The deadline for the responses is February 29, 2014. After taking the survey, members will receive a free Knowledge Areas and Process Groups chart developed by researcher to guide project management work using a waterfall framework to project management. Members may also request the results of the study, which will be available at a later date. Please let me know if you have any questions.

Regards,

Linda P. Dowdell

Doctoral Student, University of Phoenix

lpdowdell@gmail.com

lpdowdell@verizon.net

914-874-4343

Appendix B

Survey Invitation

Dear Survey Participant,

This is an opportunity to share your experiences and make a difference to help companies identify the roles of Project Management Offices (PMOs) and associated governance groups (such as risk management, portfolio management, and program management) in reducing perceived impact on operational risk in financial institutions and the likelihood of another banking collapse.

My name is Linda P. Dowdell, and I am looking for individuals who are available and willing to participate in this qualitative study and who may have the following characteristics:

- Personal Criteria:
    - Executive, management, or non-management employee status
    - Greater than five years of experience in financial institutions (not limited to the tenure at your current or single employer)
    - Two or more years of project management experience (not limited to the tenure at your current or single employer)
    - Participant is located in the 48 contiguous states of the United States of America

I am a doctoral student seeking to collect qualitative data for my dissertation study, "Postulation of Project Management Office structures in reducing operational risk of financial institutions." The purpose of this exploratory case study is to explore if financial organizations under the confines of existing regulatory frameworks (such as Basel II and III) but without PMOs and associated governance groups within such frameworks may be contributing factors to

another banking collapse. The study will also explore and describe the perceived problem that financial institutions in the United States with *PMO structures* (PMOs and associated governance groups) but without regulatory frameworks with oversight and metrics to control and measure the effectiveness of projects and operational structures may be contributing to another banking collapse because of the perceived impact on operational risk. Thus, the results of the survey will help determine whether PMOs and associated governance groups have a direct and significant impact in the reduction of operational risk of financial institutions when under the confinements of regulatory frameworks.

The results of the research may raise awareness and provide better understanding of the perceived problem to leaders of financial institutions so that they can change traditional ways of doing business in not only considering market and credit risks but also operational risks that may be affecting consumers of financial services with paying high product costs and service fees. Leaders of financial institutions could consider the benefits of establishing centralized PMOs and associated governance groups as follows: reduction of operational risks to ultimately improve business operations that will eventually benefit consumers of financial services in the reduction of interest and other related fees. In addition, regulatory leaders would modify Basel frameworks by integrating governance groups such as PMOs, portfolio management, and risk management, to their existing and new Basel accord rules. Finally, industry leaders could develop strategies to educate employees about operational risk.

Your individual responses will not be shared and will remain strictly confidential using a coding system that would replace your name with a code. In fact, you will submit the survey using such code. There are no anticipated risks in your involvement with this study.

The final report will only include summary data. After the analysis, the responses will be deleted in three years, minimum. By filling out the survey, you are consenting to participate by providing your responses. After taking the survey, you will receive a free Knowledge Areas and Process Groups chart developed by the researcher to guide project management work using a waterfall framework to project management. You may also request the results of the study to be available at a later date.

I anticipate the research participants will spend approximately 20-30 minutes to complete the survey. The responses deadline is February 29, 2014. Please follow this link to the questionnaire or cut and paste it to your browser: https://www.surveymonkey.com/s/JH399DP

Sincerely,

Linda P. Dowdell

Doctoral Student, University of Phoenix

lpdowdell@verizon.net

914-874-4343

Appendix C

Informed Consent Form for Survey Participants

Participants 18 Years of Age and Older

Dear Survey Participant,

Thank you for your interest in my qualitative research study, "Financial Collapse: Postulation of Project Management Office structures in Reducing Operational risk of Financial Institutions." Your contributions to this study will be valuable in fulfilling the University of Phoenix's Doctorate of Business Administration degree, in creating awareness about operational risk in financial institutions, and in exploring solutions for reducing operational risk and the perceived likelihood of another banking collapse.

This survey will last between 20-30 minutes (approximately) using closed and open-ended questions. Participation in this study is voluntary, and you may choose not to participate or to withdraw from the survey at any time. Only the results of the study will be published. Names of participants and organizations will not be disclosed in this study.

This study will not generate any risks to the participants during the surveys. The findings in this research may create awareness about operational risks in financial organizations after the surveys. If you have any questions about this research study and your participation, please contact the researcher at the phone number or e-mail address included on this form.

Sincerely,

Linda P. Dowdell

Doctoral Student, University of Phoenix

lpdowdell@verizon.net

914-874-4343

Participating in this survey provides your acceptance to this study and the terms within it, acknowledge understanding the nature of the study, the risks explained, and the confidentiality of your identity. You attest to be 18 years or older and also give permission to serve in this study on a voluntary basis.

Appendix D

Survey Questions and Protocol

Protocol: SurveyMonkey Survey

Topic: Postulation of Project Management Office structures in reducing operational risk of financial institutions

Time of Survey: Supplied by SurveyMonkey tool

Date: Captured by SurveyMonkey tool

Participant: Coded by SurveyMonkey tool

Position of Participant: Captured by SurveyMonkey tool

Introduction:

In this survey, Project Management Offices (PMOs) and associated governance groups (project management, program management, portfolio management, risk management, to name a few) are collectively referred to as *PMO structures*.

To explore the influence PMO structures may have on operational risk, this qualitative and exploratory case study will gather data from professionals with project management and financial industry experience and published documentation from PMI journals relevant to the study. The exploratory case study will facilitate the exploration of financial institutions with PMO structures to find out maturity levels of PMOs, optimal PMO structures, criteria to measure PMO effectiveness, and the impact of integrating PMO structures in the Basel Committee of Banking Supervision (BCBS) Basel framework* to reduce operational risk and the perceived likelihood of another banking collapse.

***Note:** The online survey tool will provide the following definition: BCBS sets (through its established accords) complex quantitative and qualitative risk criteria and capital fund

requirements (capital reserves) for financial institutions worldwide to ensure sufficient levels of controlled risk and maintained proportions of sustainability (the amount of capital reserves held in proportion to the riskiness of a bank's assets) if another banking collapse would occur. The BCBS accords do not have project management structures such as PMOs and associated governance groups for operational risk management of financial institutions that may help prevent the likelihood of another financial collapse. Financial organizations that do have PMO structures but are still not subject to regulatory oversight, specifically requiring reporting of operational structures and projects (e.g., well-structured PMO and associated governance groups) linked to operational risk, may be generating high levels of risk.

Qualitative research questions raised from the complete study are as follows: R1: How do financial institutions with unregulated PMOs structures (without a regulatory mandate to enforce PMO structures) generate various levels of operational risk?

While increases in capital requirements by international and national regulatory groups attempted to reduce cash-flow defaults, the focus may be more effective by concentrating in operational management structures of financial institutions to reduce operational risk. R1.1: To this end, what is the perceived impact of integrating PMO structures in the BCBS Basel framework in reducing operational risk? S1: What are the characteristics of PMO structures that have perceived influence on operational risk? S1.1: What factors need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions? S1.2: What criteria can be used to measure PMO effectiveness? S1.3: What are the maturity levels of PMOs?

Demographic, Closed Ended Questions

Question 1 note. The following is a multiple-choice, one-answer question. It requires one answer. Participants can only choose one answer. If the answer is not specified, participants may choose 'Other' from the selection and type the missing choice.

1. Please select or specify your role at your current or previous place of employment.

Project manager

Program manager

Portfolio manager

Risk manager

PMO director

Other

Question 2 note: This is a multiple-choice, one answer question. It requires one answer. If the answer is *yes*, the survey will advance to the next question. If the answer is *no*, the following response is provided to the survey participant:

> This survey requires that you currently work or have worked in the financial industry. Thanks for your participation! If you selected an incorrect answer, please go back by selecting the *Prev* button to select the correct answer. Otherwise, select the *Next* button and the survey will end.

2. Do you work or have you worked in the financial industry?

Yes

No

Question 3 note: This is a multiple-choice, one answer question. It requires one answer. If the answer is *5 years or more*, the survey will advance to the next question. If the answer is *Less than 5 years*, the following response is provided to the survey participant:

> This survey requires five or more years of experience in the financial industry. Thanks for your participation! If you selected an incorrect answer, please go back by selecting the *Prev* button to select the correct answer. Otherwise, select the *Next* button, and the survey will end.

3. How many years have you worked in the financial industry?

Less than 5 years

5 years or more

Question 4 note: This is a multiple-choice, one answer question. It requires one answer. If the answer is any of the first three choices, the survey will advance to the next question. If the answer is *No, not in the United States*, the following response is provided to the survey participant.

> This survey requires United States work experience in the financial industry. Thanks for your participation! If you selected an incorrect answer, please go back by selecting the *Prev* button to select the correct answer. Otherwise, select the *Next* button, and the survey will end.

4. Was your financial industry work experience in the United States?

Yes, in the United States

Both, in the United States and other country

In another country, but with a United States presence

No, not in the United States

Question 5 note: This is a multiple-choice, one answer question. It requires one answer. If the answer is *Yes*, the survey will advance to the next question. If the answer is *No*, the following response is provided to the survey participant:

> This survey requires working experience in project management. Thanks for your participation! If you selected an incorrect answer, please go back by selecting the *Prev* button to select the correct answer. Otherwise, select the *Next* button, and the survey will end.

5. Do you have project management work experience?

Yes

No

Question 6 note: This is a multiple-choice, one answer question. It requires one answer. If the answer is *Two years or more*, the survey will advance to the next question. If the answer is *Less than 2 years*, the following response is provided to the survey participant

> This survey requires two or more years of project management experience. Thanks for your participation! If you selected an incorrect answer, please go back by selecting the "Prev" button to select the correct answer. Otherwise, select the "Next" button, and the survey will end.

6. How many years of project management experience do you have?

Less than two years

Two years or more

Maturity Levels of PMOs

The purpose of this section is to collect information about maturity levels of PMOs. PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as *PMO structures* in this survey.

7. To improve the management of projects, programs, and portfolios, the maturity level of PMOs (which depends on its services and support processes) must be raised to a level that produces project delivery effectiveness. Consequently, the maturity levels of a PMO are naturally aligned to project delivery effectiveness, which in turn is linked to the maturity levels of PMO processes and delivery of services.

Please list a maturity level that must be part of a PMO at a minimum:

Level 0 - no documented processes or best practices in a PMO environment

Level 1 - PMO processes are not formal in the organization and used in an ad hoc fashion

Level 2 - PMO processes are formal in the organization and repeatable in certain groups

Level 3 - PMO processes are formal and repeatable in several areas of the organization

Level 4 - PMO processes is a standard throughout the organization. The use of a project and portfolio management software (PPM) may be in use to automate the processes and delivery of services, and produce "what-if" analysis, for example

8. Are high maturity levels necessary to achieve PMO excellence and why?

Optimal PMO Structures

The purpose of this section is to collect information about factors that need to be considered to postulate an optimal PMO structure that may help reduce perceived operational risk of financial institutions. Please remember that PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as PMO structures in this survey.

9. Please define an optimal PMO structure.

10. Please indicate whether an optimal PMO structure can be achieved and how.

PMO Effectiveness

The purpose of this section is to collect information about criteria that can be used to measure PMO effectiveness. Please remember that PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as PMO structures in this survey.

11. How would you describe PMO effectiveness?

12. Please provide criteria that can be used to measure PMO effectiveness.

13. Please provide one type of metric that would help measure PMO effectiveness.

Characteristics of PMO structures

The purpose of this section is to collection information about characteristics of PMO structures that have perceived influence on operational risk. Please remember that PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as PMO structures in this survey.

14. Please provide characteristics of PMO structures that have perceived influence on operational risk.

Operational Risk

The purpose of this section is to collect information about operational risk. Please remember that PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as PMO structures in this survey.

15. In your opinion, has operational risk received the same level of attention as credit and market risks? Please explain your answers.

16. How helpful is the implementation of PMO structures in reducing operational risk in your organization or operational area of control and influence?

17. What is the impact of PMO structures in reducing operational risk in your organization?

18. What is your experience or point of view regarding PMOs structures to help reduce operational risk?

19. If PMO structures would help reduce operational risk, how influential it would be to the entire financial system in helping reduce another banking collapse?

20. How do you define a PMO in your organization in terms of impacting operations of human, systems, process, and in relation to operational risk?

21. Are PMOs useful in executing/monitoring projects in reducing operational risk?

Regulatory Groups

The purpose of this section is to collect information about regulatory groups. Please remember that PMOs and associated governance groups such as project management, program management, portfolio management, risk management, to name a few, are collectively referred to as PMO structures in this survey.

22. Do you think regulatory structures or Acts such as the Volker Rule, Dodd-Frank Act, and the new Basel III have been or will be able to reduce risk levels and uncertainty to reduce the perceived likelihood of another banking collapse? Explain why.

23. What is your opinion about PMO structures in becoming a regulatory mandate for financial institutions to implement in their operational structures to help reduce the perceived likelihood of another banking collapse?

24. What is your experience or point of view regarding the Basel III accord of the Basel Committee on Banking Supervision in helping reduce operational risk?

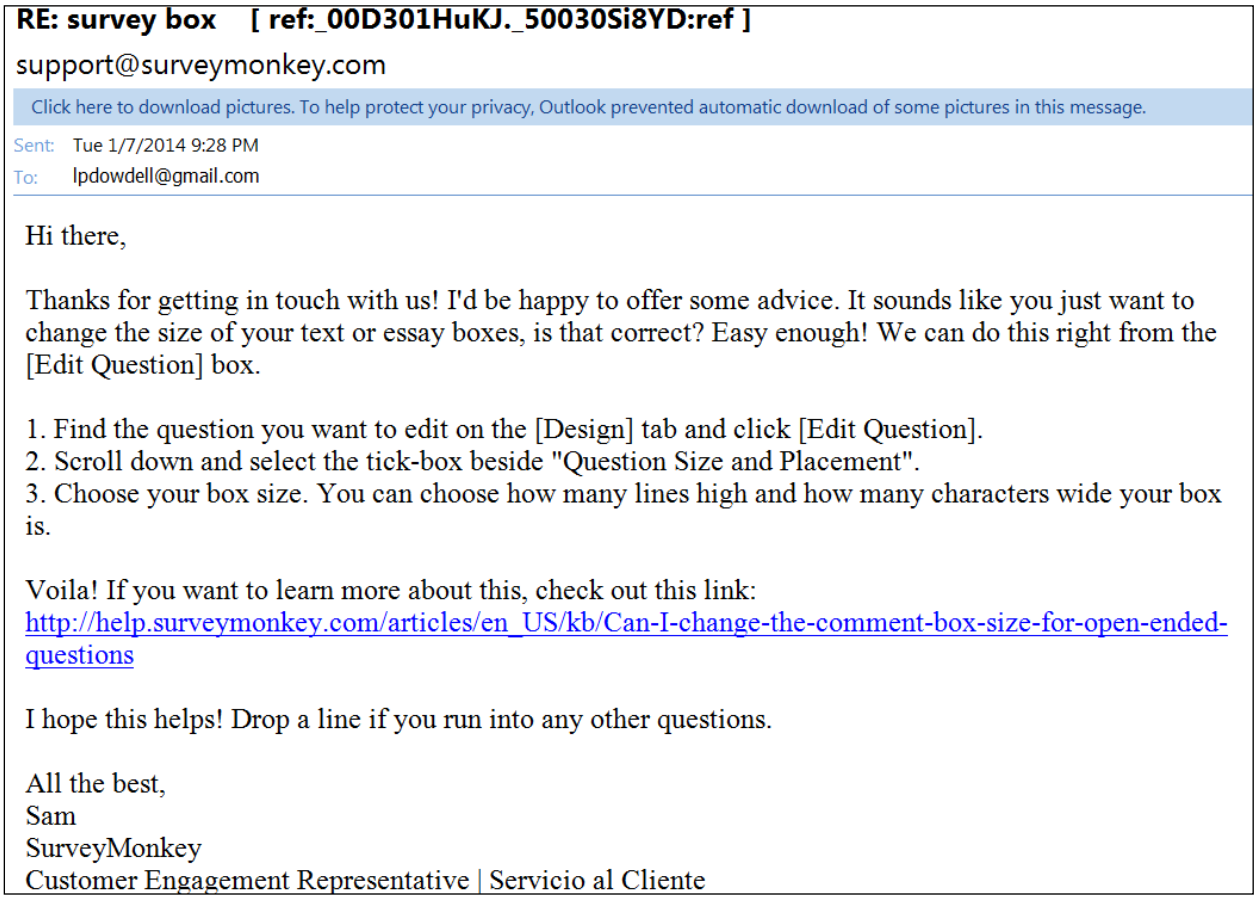
Note: "BCBS sets (through its established accords) complex quantitative and qualitative risk criteria and capital fund requirements (capital reserves) for financial institutions worldwide to ensure sufficient levels of controlled risk and maintained proportions of sustainability (the amount of capital reserves held in proportion to the riskiness of a bank's assets) if another banking collapse would occur. The BCBS accords do not have project management structures such as PMOs and associated governance groups for operational risk management of financial institutions that may help prevent the likelihood of another financial collapse. Financial organizations that do have PMO structures but are still not subject to regulatory oversight, specifically requiring reporting of operational structures and projects (e.g., well-structured PMO

and associated governance groups) linked to operational risk, may be generating high levels of risk."

25. What is your experience or point of view if the Basel Committee on Banking Supervision mandates PMO structures to become part of its frameworks? Will there be more control regarding fraud, financial scandals, and other financial influences to the financial system?

Appendix E

SurveyMonkey Support E-mail



RE: survey box [ref:_00D301HuKJ._50030Si8YD:ref]

support@surveymonkey.com

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Sent: Tue 1/7/2014 9:28 PM
To: lpdowdell@gmail.com

Hi there,

Thanks for getting in touch with us! I'd be happy to offer some advice. It sounds like you just want to change the size of your text or essay boxes, is that correct? Easy enough! We can do this right from the [Edit Question] box.

1. Find the question you want to edit on the [Design] tab and click [Edit Question].
2. Scroll down and select the tick-box beside "Question Size and Placement".
3. Choose your box size. You can choose how many lines high and how many characters wide your box is.

Voila! If you want to learn more about this, check out this link:
http://help.surveymonkey.com/articles/en_US/kb/Can-I-change-the-comment-box-size-for-open-ended-questions

I hope this helps! Drop a line if you run into any other questions.

All the best,
Sam
SurveyMonkey
Customer Engagement Representative | Servicio al Cliente

Figure E1. SurveyMonkey technical support team workaround e-mail.

Appendix F

Original and Revised Question Size and Placement

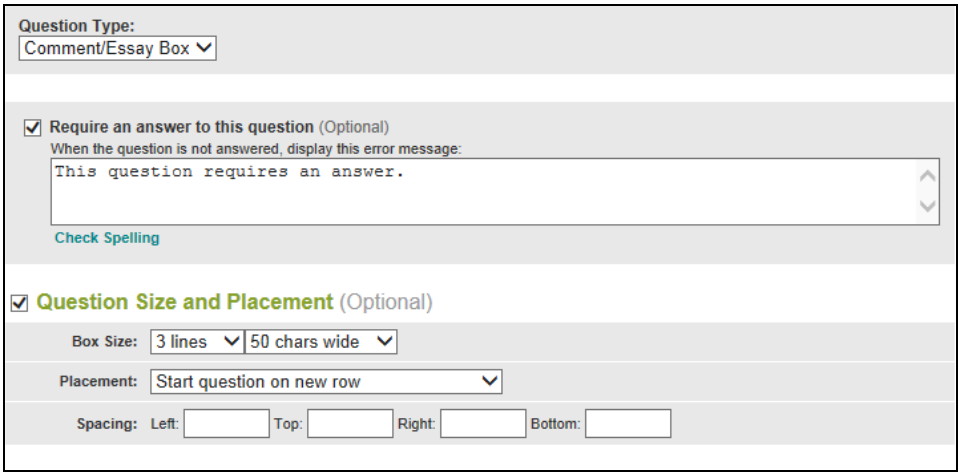


Figure F1: Original question size and placement.

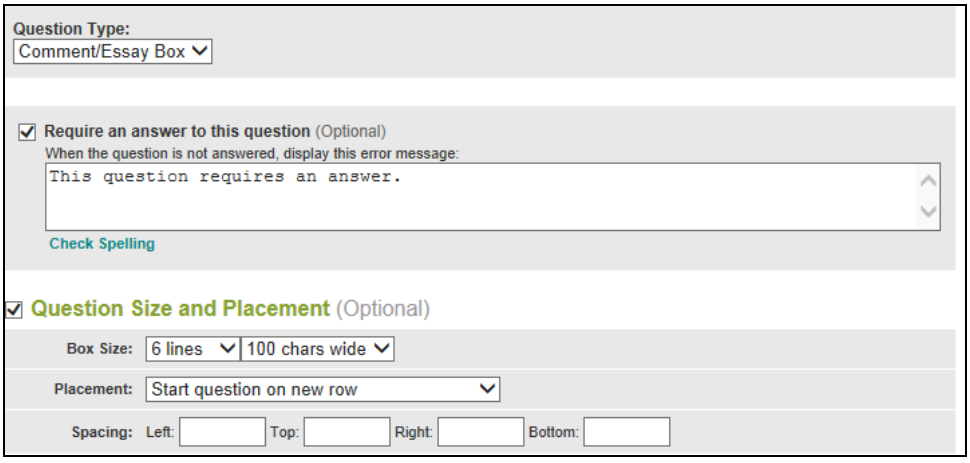
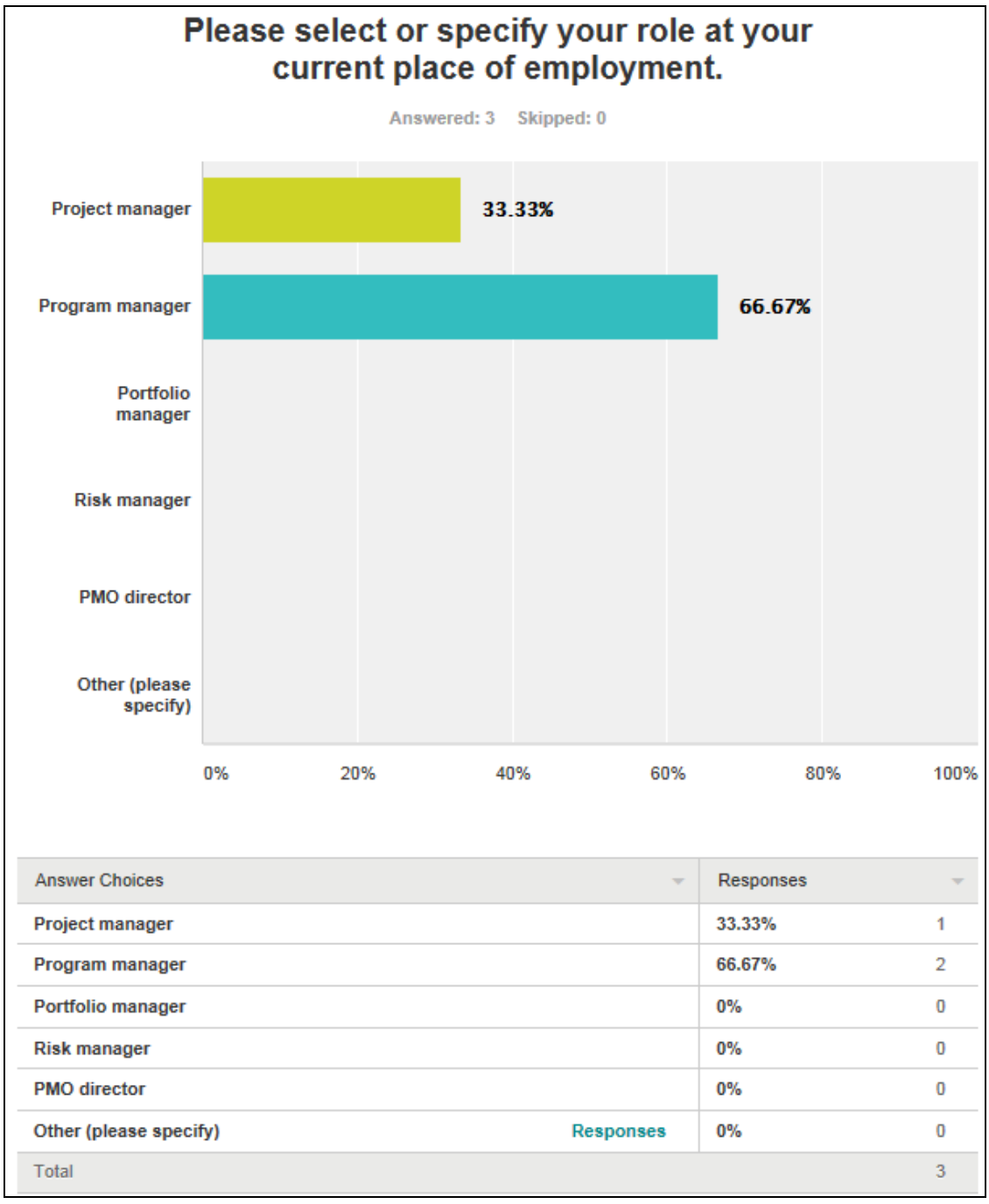


Figure F2: Revised question size and placement.

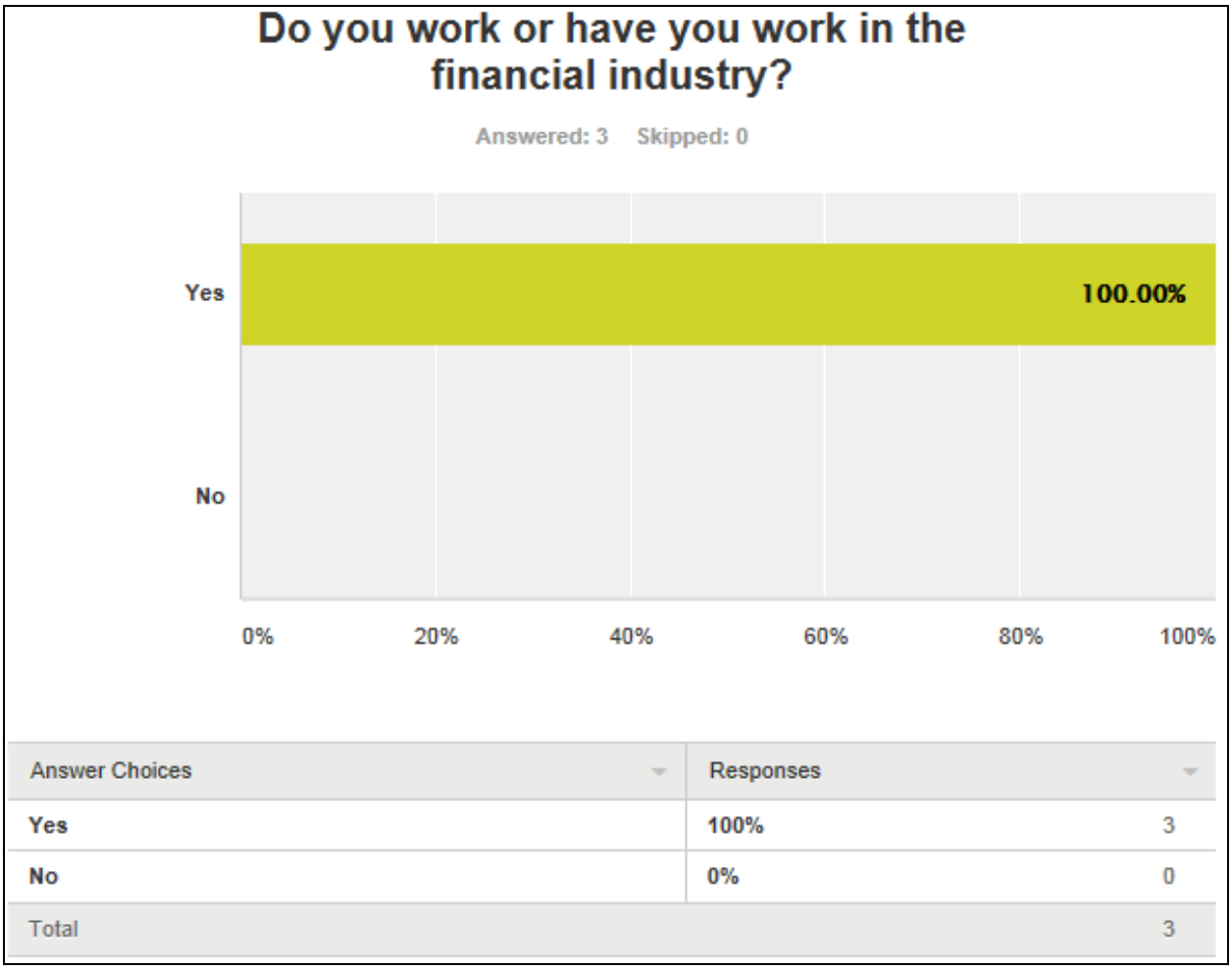
Appendix G

Pilot Participants Data



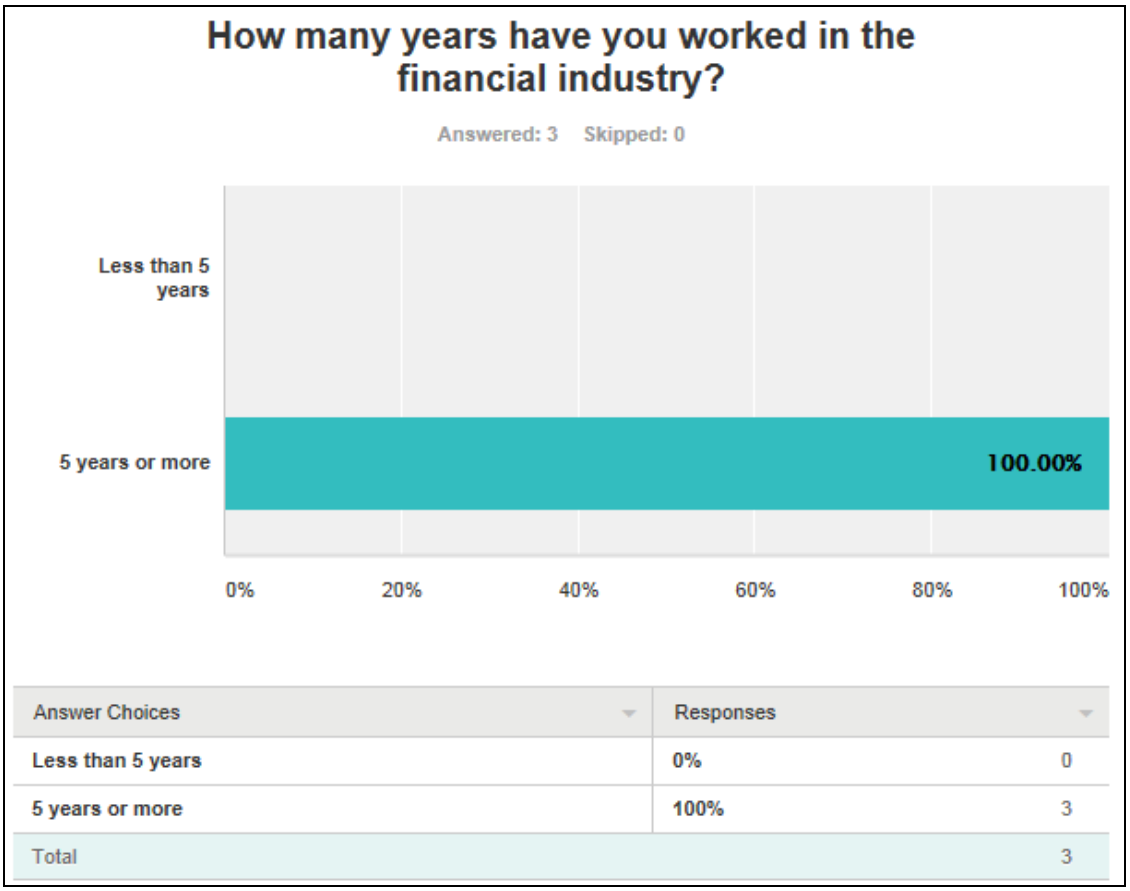
Answer Choices		Responses	
Project manager		33.33%	1
Program manager		66.67%	2
Portfolio manager		0%	0
Risk manager		0%	0
PMO director		0%	0
Other (please specify)	Responses	0%	0
Total			3

Figure G1. Question 1 shows that 33.33% of the pilot participants were project managers and 66.67% program managers, respectively. Sample size = 3.



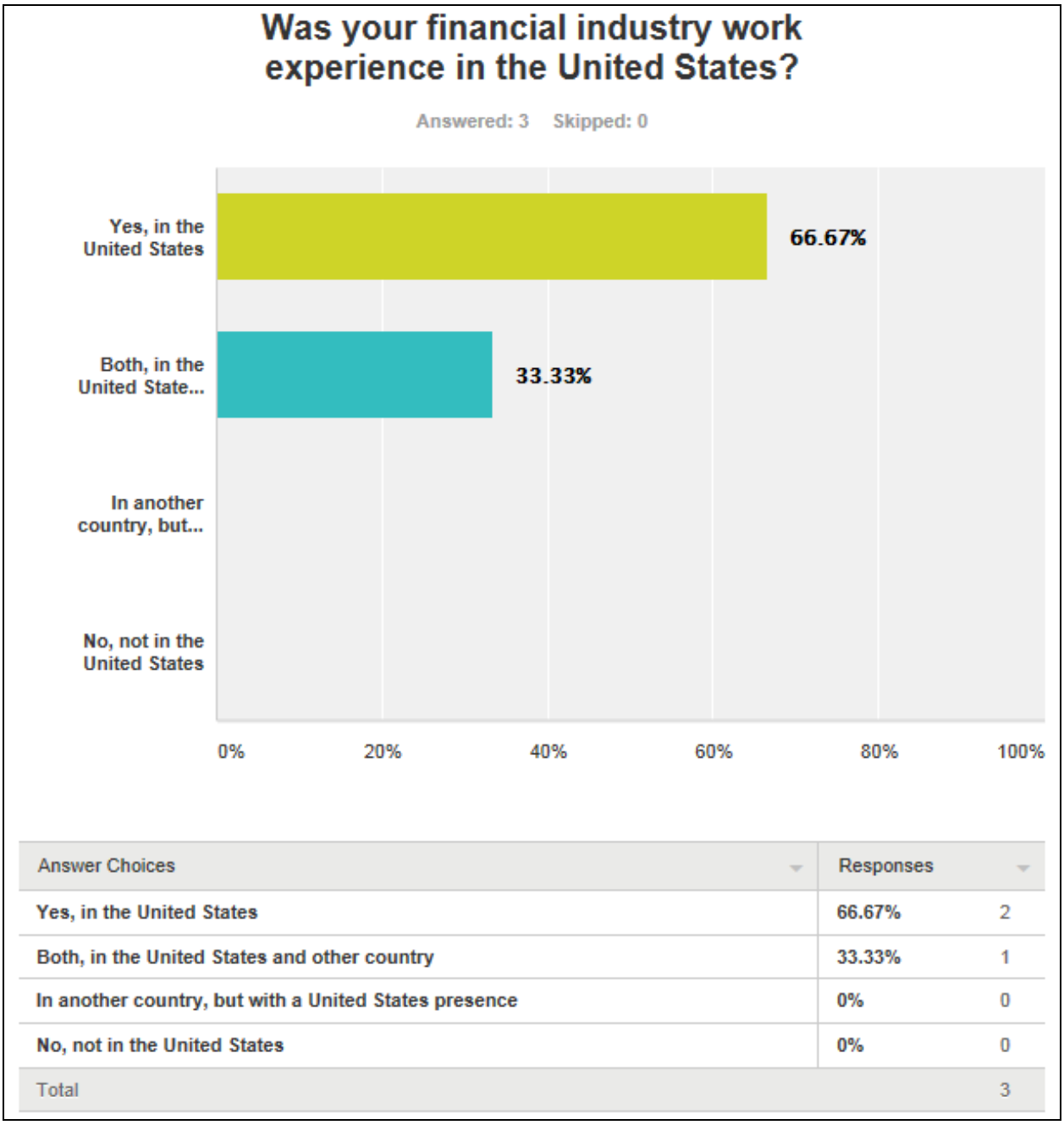
Answer Choices	Responses	
Yes	**100%**	3
No	**0%**	0
Total		3

Figure G2. Question 2 shows that 100% of the pilot participants work or have worked in the financial industry. Sample size = 3.



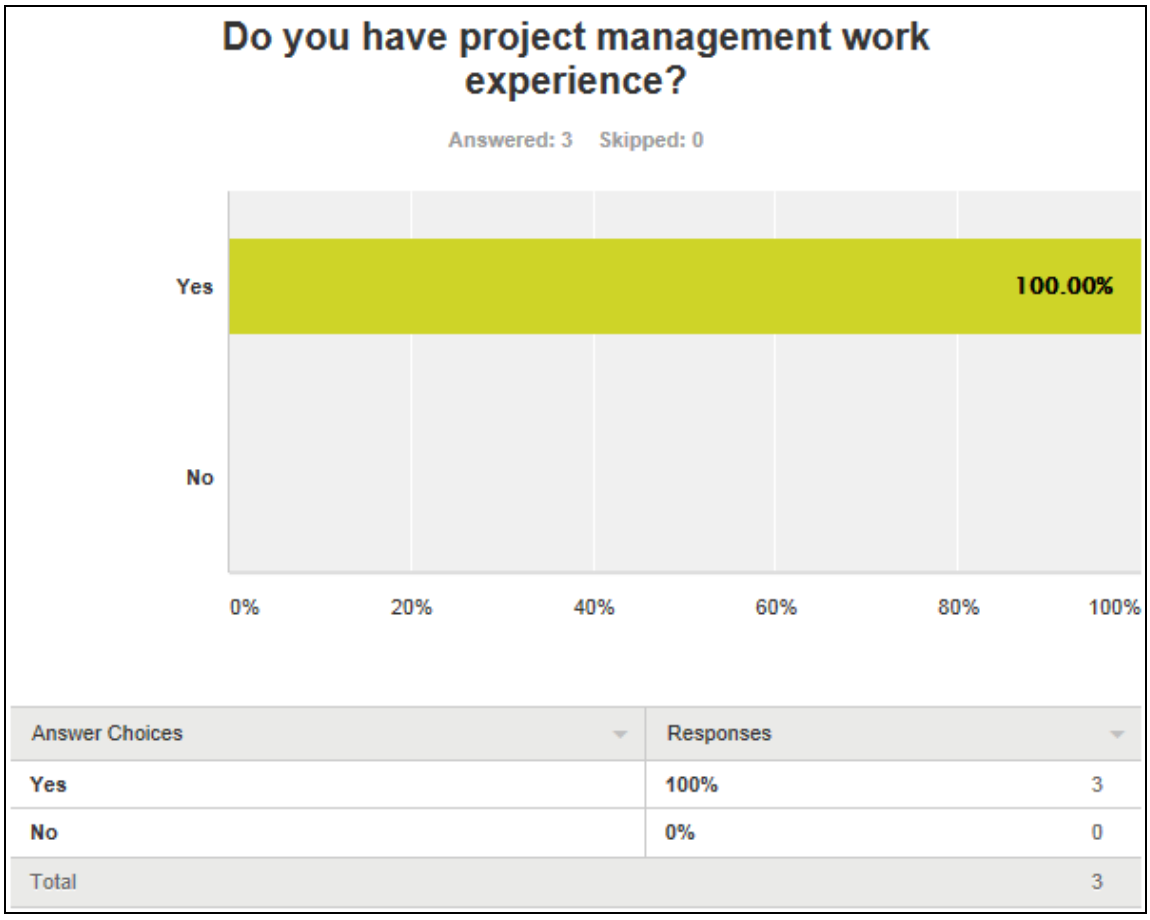
Answer Choices	Responses	
Less than 5 years	0%	0
5 years or more	100%	3
Total		3

Figure G3. Question 3 shows that 100% of the pilot participants had five or more years of experience in the financial industry. Sample size = 3.



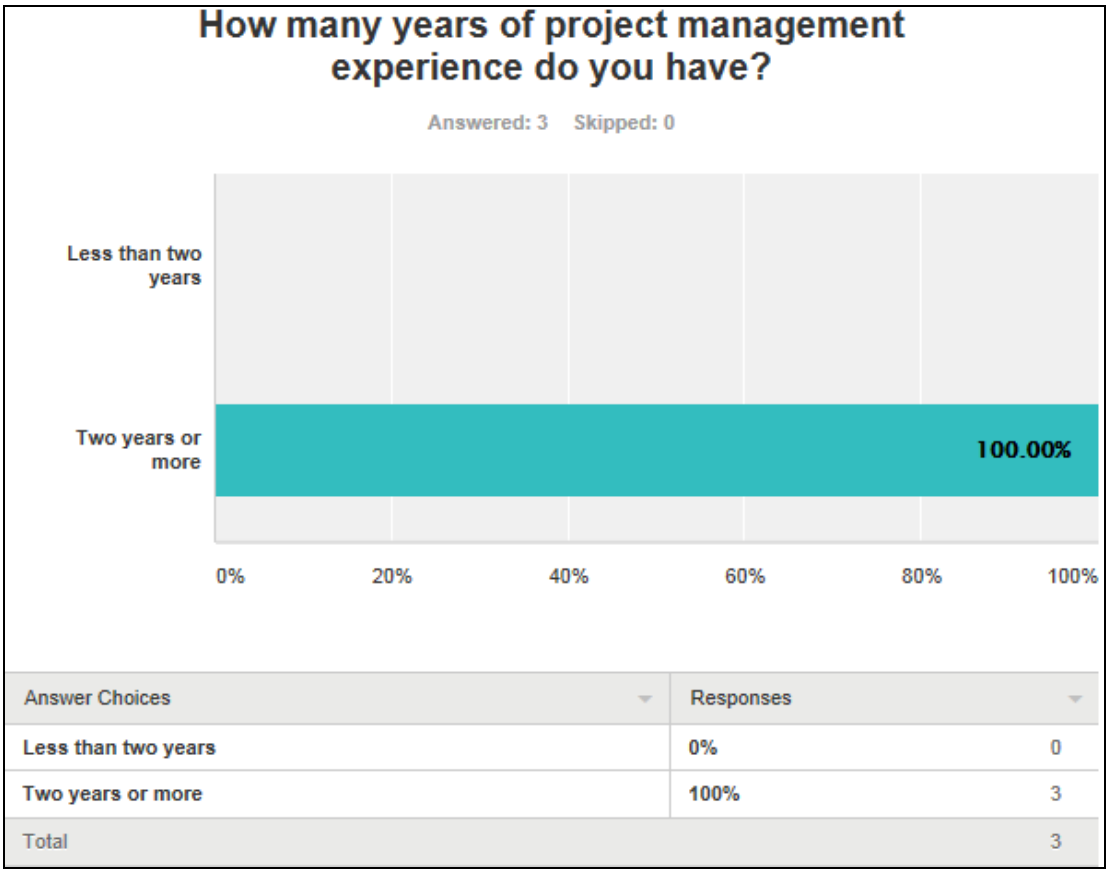
Answer Choices	Responses	
Yes, in the United States	66.67%	2
Both, in the United States and other country	33.33%	1
In another country, but with a United States presence	0%	0
No, not in the United States	0%	0
Total		3

Figure G4. Question 4 shows that 66.67% of the pilot participants had financial industry experience in the United States and 33.33% in the United States and other country, respectively. Sample size = 3.



Answer Choices	Responses	
Yes	**100%**	3
No	**0%**	0
Total		3

Figure G5. Question 5 shows that 100% of the pilot participants had project management work experience. Sample size = 3.

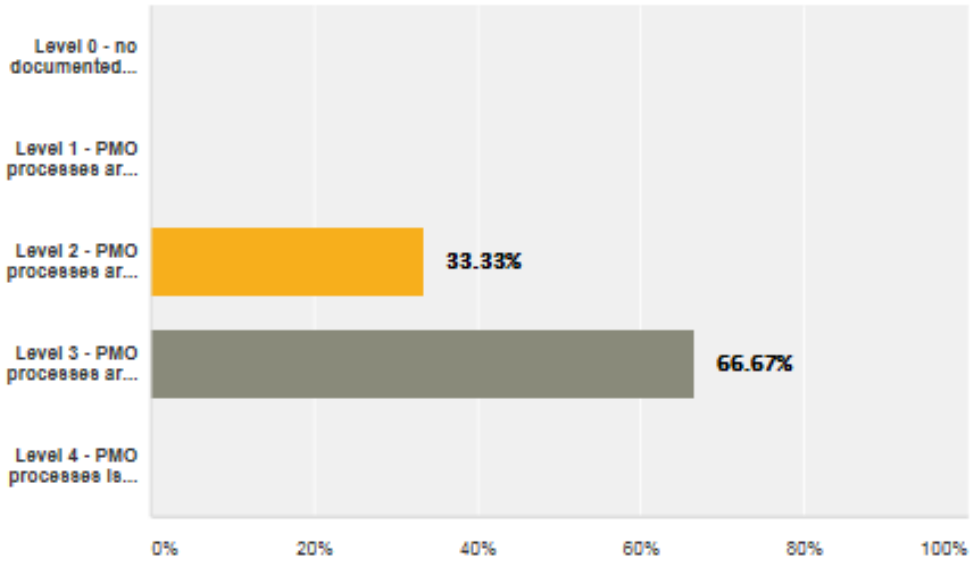


Answer Choices	Responses	
Less than two years	0%	0
Two years or more	100%	3
Total		3

Figure G6. Question 6 shows that 100% of the pilot participants had two or more years of project management work experience. Sample size = 3.

To improve the management of projects, programs, and portfolios, the maturity level of PMOs (which depends on its services and support processes) must be raised to a level that produces project delivery effectiveness. Consequently, the maturity levels of a PMO are naturally aligned to project delivery effectiveness, which in turn is linked to the maturity levels of PMO processes and delivery of services. Please list a maturity level that must be part of a PMO at a minimum:

Answered: 3 Skipped: 0

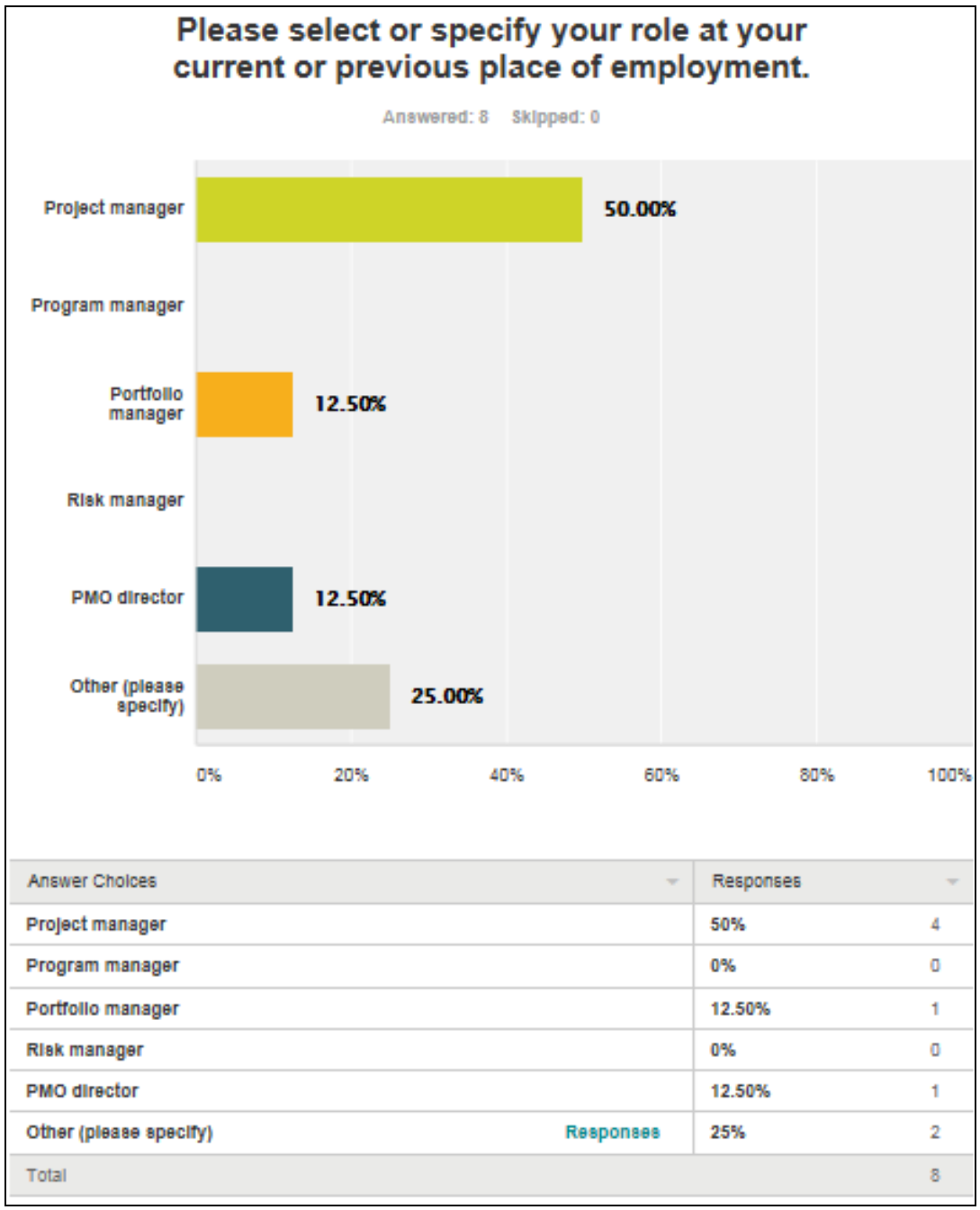


Answer Choices	Responses	
Level 0 - no documented processes or best practices in a PMO environment	0%	0
Level 1 - PMO processes are not formal in the organization and used in an ad hoc fashion	0%	0
Level 2 - PMO processes are formal in the organization and repeatable in certain groups	33.33%	1
Level 3 - PMO processes are formal and repeatable in several areas of the organization	66.67%	2
Level 4 - PMO processes is a standard throughout the organization. The use of a project and portfolio management software (PPM) may be in use to automate the processes and delivery of services, and produce "what-if" analysis, for example	0%	0
Total		3

Figure G7. Question 7 shows that 33.33% of the pilot participants believed that Level 2 maturity level must be part of a PMO and 66.67% Level 3, respectively. Sample size = 3.

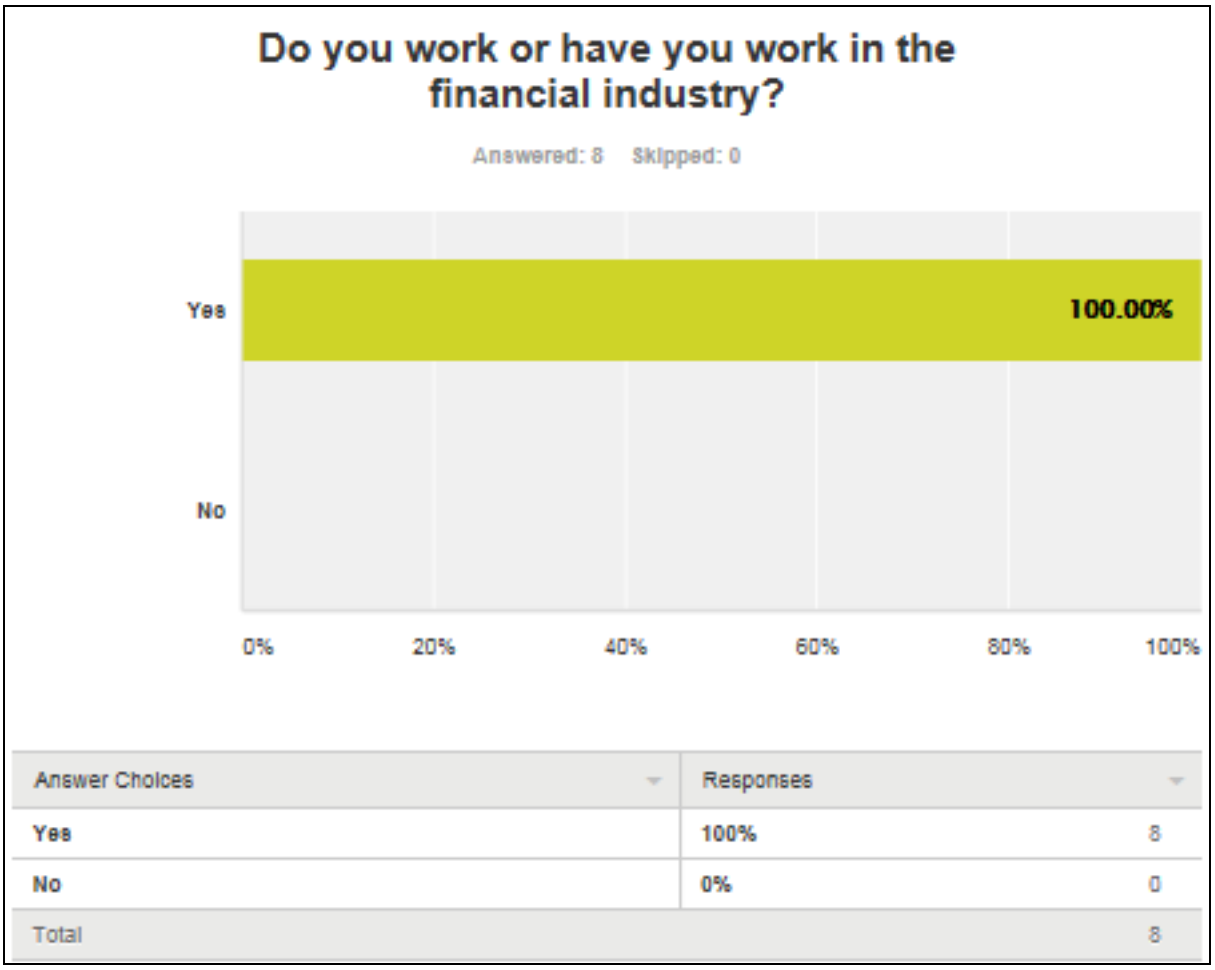
Appendix H

Respondents Demographic Data



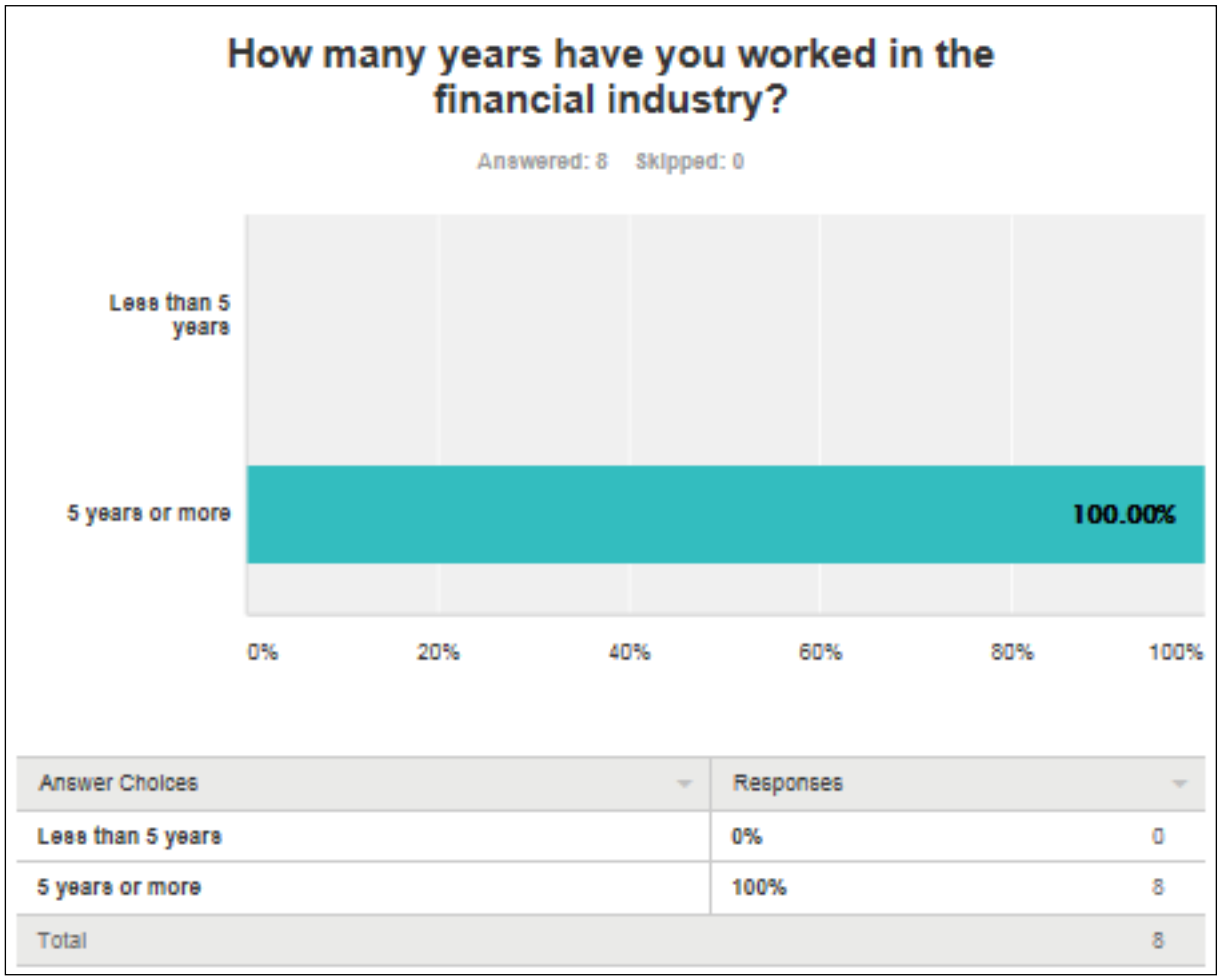
Answer Choices		Responses	
Project manager		50%	4
Program manager		0%	0
Portfolio manager		12.50%	1
Risk manager		0%	0
PMO director		12.50%	1
Other (please specify)	Responses	25%	2
Total			8

Figure H1. Question 1 shows that 0% of the participants were project managers, 12.50% portfolio managers, 12.50% PMO directors, and 25.00% other role, respectively, at current or previous place of employment. Sample size = 8.



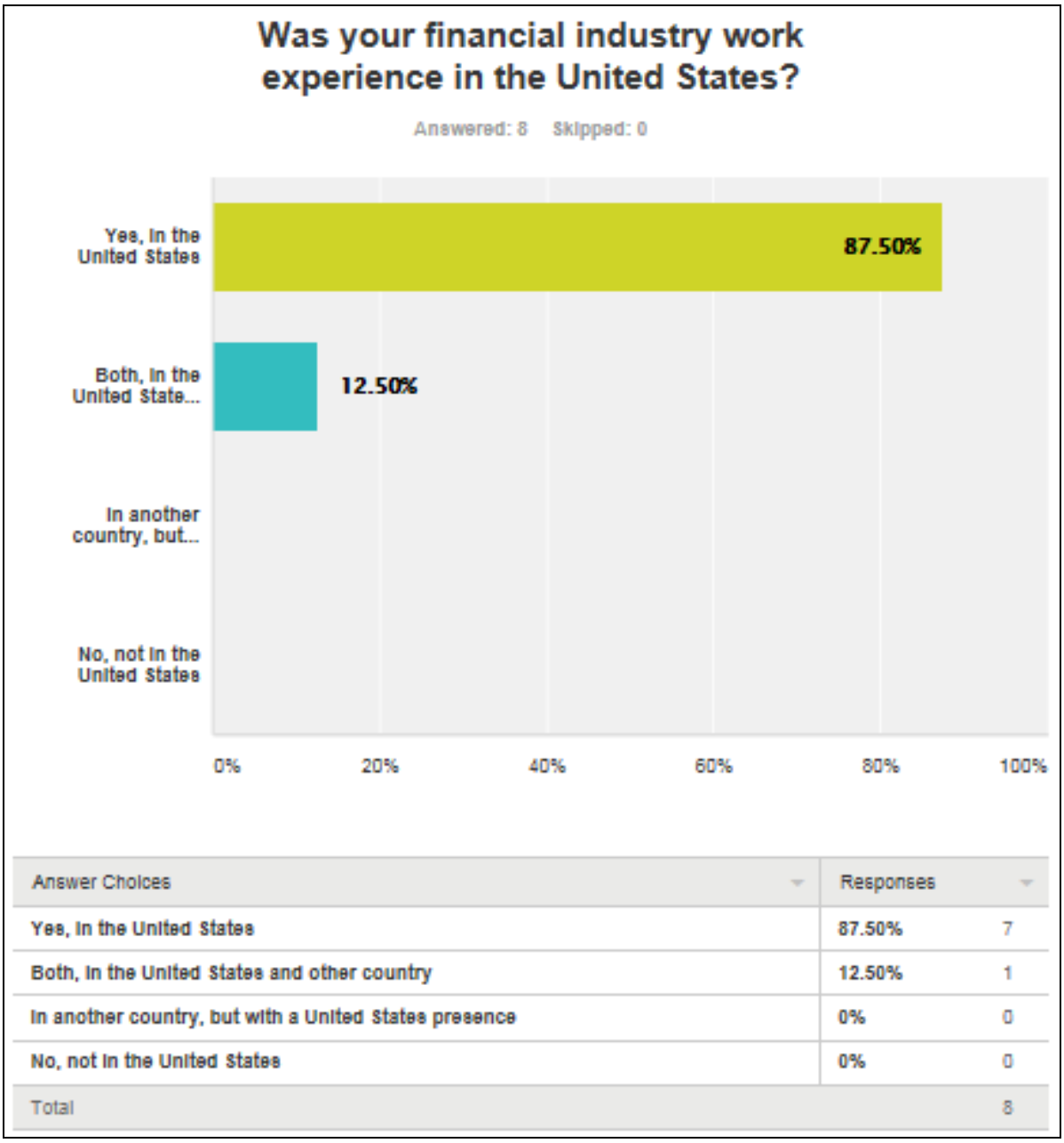
Answer Choices	Responses	
Yes	100%	8
No	0%	0
Total		8

Figure H2. Question 2 shows that 100% of participants work or have worked in the financial industry. Sample size = 8.



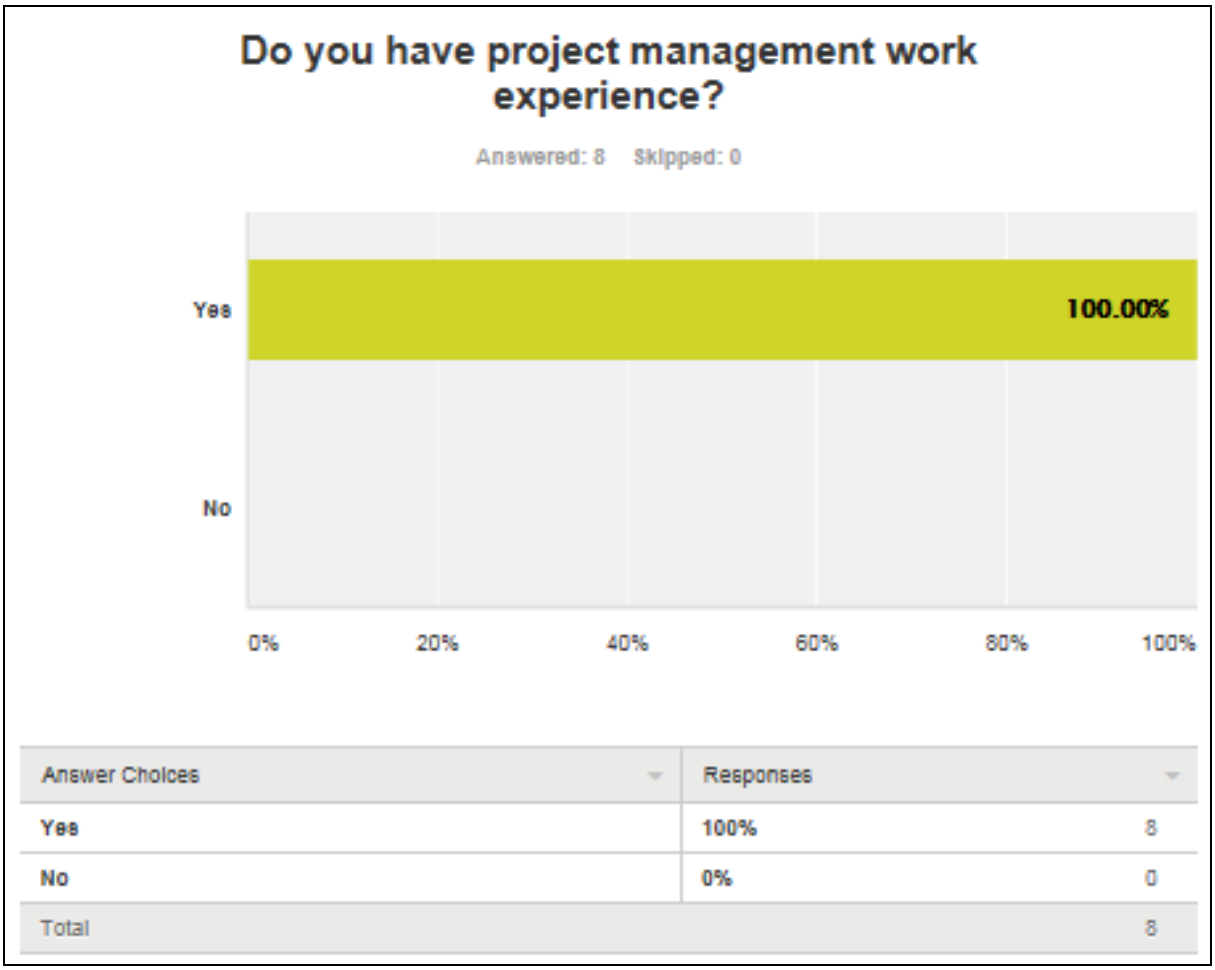
Answer Choices	Responses	
Less than 5 years	0%	0
5 years or more	100%	8
Total		8

Figure H3. Question 3 shows that 100% of the participants had five or more years of experience in the financial industry. Sample size = 8.



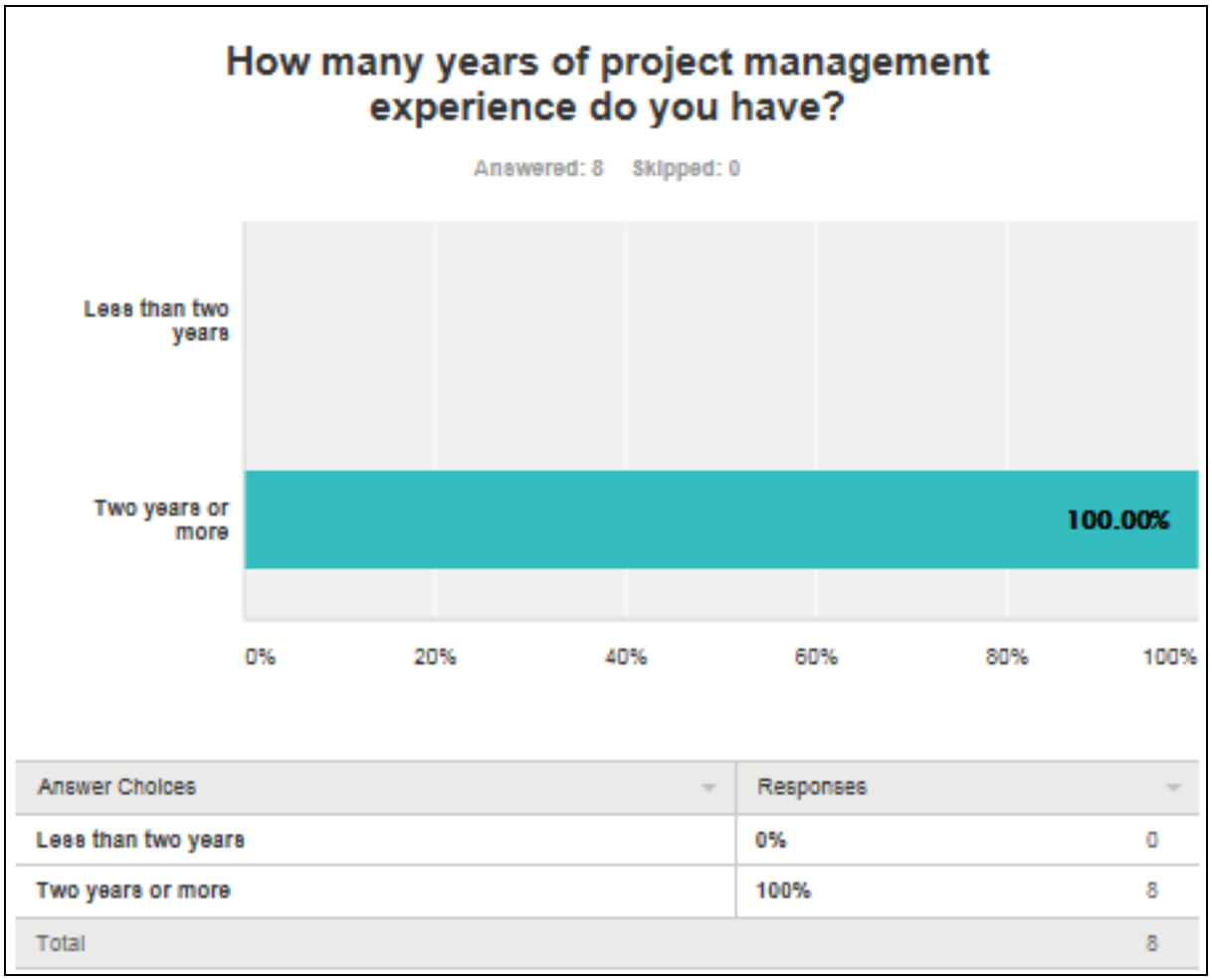
Answer Choices	Responses	
Yes, in the United States	87.50%	7
Both, in the United States and other country	12.50%	1
In another country, but with a United States presence	0%	0
No, not in the United States	0%	0
Total		8

Figure H4. Question 4 shows that 87.50% of the participants had financial industry experience in the United States and 12.50% in the United States and other country, respectively. Sample size = 8.



Answer Choices	Responses	
Yes	100%	8
No	0%	0
Total		8

Figure H5. Question 5 shows that 100% of the participants had project management work experience. Sample size = 8.



Answer Choices	Responses	
Less than two years	0%	0
Two years or more	100%	8
Total		8

Figure H6. Question 6 shows that 100% of the participants had two or more years of project management work experience. Sample size = 8.

Appendix I

Maturity Levels of PMOs

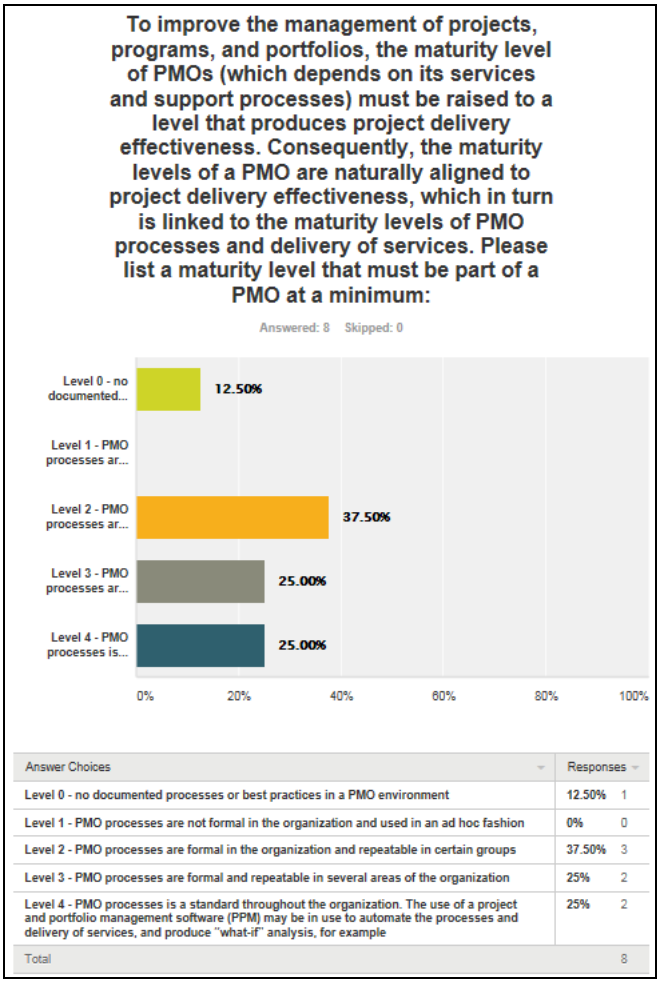


Figure I1. Maturity levels of PMOs (Question 7). The data shows that 12.50% of the participants believed that Level 1 maturity level must be part of a PMO, 37.50% Level 2, 25.00% Level 3, and 25.00% Level 4, respectively.