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Walden University

College of Management and Technology

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Henrich Y. Edimo

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Walden University
2021

Abstract

Strategies to Mitigate the Level of Inherent Risk in Retail Loan Portfolios

by

Henrich Y. Edimo

MBA, New Mexico Highland University, 2008

BS, University of Buea, 2003

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

May 2021

Abstract

Despite regulatory requirements and technological advancements, bank managers face inherent risk in their retail loan portfolios. Bank managers who do not address and mitigate inherent risk in their retail loan portfolios are at a disadvantage to better know their customers, use technology, and enhance credit analytics. Grounded in the enterprise risk management framework, the purpose of this qualitative multiple case study was to explore strategies bank managers used to mitigate the level of inherent risk in their retail loan portfolios. Data were collected from semistructured interviews and document reviews. Participants comprised eight bank managers at four companies who implemented successful strategies managing their retail loan portfolios' risk. Using Yin's five-step data analysis process, four themes emerged: know your customer, business knowledge and effective leadership, enhance credit analytics, and technology use. A key recommendation for bank managers is to use holistic risk assessment strategies to manage inherent risk. The implications for positive social change include increased sponsorships for local events with the potential increase of donations to local schools and outreach organizations supporting local community residents.

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Dedication

I dedicate my doctoral study to God for blessings in my life. I also dedicate this study to my mom of blessed memory, Ms. Veronica Ngosut Edimo for her endless sacrifices to ensure her five children obtained the best education single-handedly. I also dedicate this study to my supportive wife, Gilliam Nawah Edimo for taking care of our children and me during my doctoral journey. To my wonderful children, Zoey-Channel Edimo, Armani-Michel Edimo, and Tyler Edimo, the completion of my doctoral study is a testament that everything is possible if you work hard and keep the faith. Thanks to my siblings, nieces, nephews, and friends for their support and encouragement.

Acknowledgments

I would like to thank my Chair, Dr. Roger Mayer, for his patience, time, and commitment to helping me complete my doctoral study. Dr. Mayer's availability and positivity helped me tremendously. I want to acknowledge Dr. Kevin Davies (second committee member) and Dr. David Blum (URR) for their amazing support, feedback, and encouragement during this journey. Thank you for your support and timely feedback during the process. Thanks to Dr. Jude Suh, colleague, classmate, and friend who contributed to the successful completion of this study. Thanks to all the participants who took time off their busy schedules to participate in this study.

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Section 1: Foundation of the Study

Banks operate in business environments that entail a level of inherent risk from the products and services that they offer to customers (Abdullatif & Kawuq, 2015). Inherent risk, also known as absolute risk, derives from the environment without mitigating internal control effects (Van de Venter et al., 2016). Inherent risk in the loan portfolios was the cause of five U.S. banks failing in 2016 and another 10 banks in 2017 (Federal Deposit Insurance Corporation, 2018). Managing risks associated with loan portfolios is a top priority for bank managers and leaders (Bushman et al., 2018). Unlike large banks, some small and medium-sized banks do not have the resources and expertise to manage risk at an acceptable level (Frazer, 2015).

Background of the Problem

The U.S. banking industry is the most liquid and largest market globally (Laeven et al., 2016). This industry supports the world's largest economy with the greatest diversity in banking institutions and private credit concentration (Lundqvist & Vilhelmson, 2018). The banking sector has awakened to risk management, especially since the 2007-2008 financial crisis (Amarh, 2015; Jian & Zhi, 2018). The function of risk management in banking is complicated; bank managers continue to look for the best risk assessment tools and practices to mitigate the high level of inherent risk in their loan portfolios (Thakor, 2018). By implementing a more robust risk management strategy, bank managers may decrease residual risk and increase profit and market share (Stulz, 2015).

Problem Statement

Managing risks associated with bank loan portfolios is a continuing issue for some bank managers (Lim et al., 2017). The number of failed banks in the United States between 2008 and 2017 was 528, with a corresponding loss of assets totaling 750 million dollars (Federal Deposit Insurance Corporation, 2019). The general business problem was that a high level of inherent risk exists that negatively affects the outcome of loan portfolios of banks in the United States. The specific business problem was that some bank managers lack strategies to mitigate the level of inherent risk in their retail loan portfolios.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies bank managers use to mitigate the level of inherent risk in their retail loan portfolios. The targeted population included eight bank managers from four different banks located in San Antonio, Texas, who had implemented successful strategies in managing the risk of their retail loan portfolios. The implication for positive social change is that improved strategies in managing risks might benefit residents through increased access to credit, which could empower the residents to improve and better their communities.

Nature of the Study

McCusker and Gunaydin (2015) identified three broad methods of inquiry available to researchers: qualitative, quantitative, and mixed methods. Researchers use the qualitative method to understand a phenomenon through open-ended inquiry, usually relying heavily on text and image data gathered from study participants (Berger, 2015). A

qualitative approach enables the researcher to probe into responses and observations to obtain detailed information about experiences, behavior, and beliefs (Kruth, 2015). Qualitative researchers collect data primarily through semistructured interviews to gain an understanding and meaning of a phenomenon (Yin, 2017). I chose the qualitative method. With the quantitative method, researchers use data to test hypotheses involving two or more quantitative variables (Ma, 2015). I did not test hypotheses and examine differences or the relationship among variables in this study. Mixed method researchers combine quantitative and qualitative methods in the same study to obtain a greater understanding of a phenomenon (Johnson, 2015). I did not use the mixed method as the quantitative aspect is not a part of my study.

The qualitative research design I selected was a multiple case study. Yin (2017) described a case study design as a study within the real-life contemporary context of a setting for providing an in-depth understanding of a case bounded by time and place. Mojtaba and Nonino (2017) suggested that a multiple case study provides researchers a robust exploration of a phenomenon. Another research design option was ethnography, which is a systematic study of culture for the researcher to observe from the point of view of the subject under review (Kruth, 2015). However, the ethnographic design was not appropriate as I did not plan to study culture in this study. Alternatively, a researcher uses a phenomenological design to explore the meanings of participants' lived experiences (Yin, 2017). A phenomenological design was not appropriate for this study as I did not intend to explore the meaning of participants' lived experiences. Although each of the alternative designs had a unique research purpose, none of them were an optimal choice

for my study. A case study design was optimal to address my research question as my focus is to explore an in-depth situation of a phenomenon bounded by time and place.

Research Question

What strategies do some bank managers use to mitigate the level of inherent risk in their retail loan portfolios?

Interview Questions

1. What strategies have you used to mitigate the level of inherent risk in your retail loan portfolios?
2. How does your organization assess the level of inherent risk in the retail loan portfolios?
3. What were the key barriers your organization encountered when implementing your strategies for mitigating the level of inherent risk in your retail loan portfolios?
4. How did your organization address the key barriers to implementing your successful strategies for mitigating the level of inherent risk in your retail loan portfolios?
5. How has your organization assessed the effectiveness of your strategies for mitigating the level of inherent risk in the retail loan portfolios?
6. How does your organization develop risk assessment in the retail loan portfolio?
7. What additional information can you share regarding strategies to mitigate the level of inherent risk in the retail loan portfolios?

Conceptual Framework

The conceptual framework for this study was the enterprise risk management (ERM) framework. In 1994, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) developed a model for evaluating internal controls (COSO, 2017). Business leaders use the ERM framework to develop effective internal controls (Pierce & Goldstein, 2018). In 2003, the ERM Committee of the Casualty Actuarial Society (CAS) first introduced the framework by outlining rationale, evolution, and risk analysis from the casualty actuarial perspective (Nocco & Stulz, 2006). Bank managers use the ERM-COSO model for guidance when developing internal controls for the achievement of organizational objectives. According to Altheebeh and Sulaiman (2016), the ERM-COSO framework encompasses (a) control environment, (b) risk assessment, (c) control activities, (d) information and communication, and (e) monitoring. The foundation of internal controls within an organization includes leadership, shared values, and a culture that emphasizes accountability (Graham & Kaye, 2015). The ERM framework was appropriate for this study as this framework includes a holistic functional component that is applicable to address inherent risk components.

Operational Definitions

Credit risk: The possibility of borrowers defaulting on the promised payments or the chance that assets will lose value below the recorded value (Cohen et al., 2014).

Committee of Sponsoring Organization of the Treadway Commission (COSO) framework: COSO provides guidance for designing, implementing, and conducting internal control and assessing its effectiveness (Wu et al., 2015).

Financial risk tolerance: The maximum uncertainty acceptable when making decisions that involve financial issues (Hemrajani & Sharma, 2018).

Liquidity risk: From the perspective of a financial institution's leadership, liquidity risk occurs when an insufficient buffer of cash exists to cover the gaps in cash receipts and disbursements (Toews, 2015).

Loan default: A situation where a debtor fails to meet his or her legal obligations according to the debt contract (Cowling et al., 2018).

Risk appetite: The level of risk an organization is willing to accept (Wu et al., 2015).

Risk assessment (Risk analysis): The process of identifying and analyzing potential risks, including financial, operational, strategic, and reputational, that could negatively impact key business initiatives (Lam, 2016).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions in research refer to basic perceptions that are seemingly true but difficult to substantiate (Nkwake & Morrow, 2016). This study consisted of three fundamental assumptions. The first was that the qualitative method was an appropriate method to explore the factors related to this study. The second assumption was that the respondents would be trustworthy and would provide honest responses. The third assumption was that bank managers in this study were appropriate for exploring themes involving inherent risk in retail loan portfolios.

Limitations

Limitations refer to study weaknesses beyond a researcher's control (Yin, 2017). The first limitation was scheduling interviews at a time that is convenient for participants yet maintaining timely data collection. The second limitation was the study findings might not be generalizable to other banks outside of the specific geographic location of the study. The third limitation was bank managers might misrepresent or present biased responses in order to influence the study findings.

Delimitations

Delimitations are specific choices and boundaries of the study made by the researcher (Fan, 2016). One delimitation to this case study was the size of the sample population. I focused on the banking sector because bank managers face increase inherent risk in the retail loan portfolios. Another delimitation was the location. The participants for the study were selected from one geographical area: San Antonio, Texas. Thus the result may not reflect the banking industry worldwide. The exclusion of managers of medium and large banks in the rest of the country could diminish the validity and reliability of the findings

Significance of the Study

Contribution to Business Practice

Findings from the study might be of value to business leaders by gaining new insights regarding managing inherent risks in retail loan portfolios. Effective management of inherent risks is a valuable long-term growth strategy (Ferro de Guimarães et al., 2017). The findings of this study might improve business practice by equipping bank

managers with relevant strategies to mitigate inherent risk in managing retail loan portfolios.

Implications for Social Change

Banks customers could benefit from the results of this study by accessing loans with a lower probability of default. A lower default rate in individual bank loans will increase the credit scores and further increase the propensity to access more credit to boost the day-to-day standard of living of individuals in the community. The results of this study could have significant effects on local community residents by increasing access to credit to build local businesses and better their communities.

A Review of the Professional and Academic Literature

A literature review is critical in a research process as researchers can identify, evaluate, and synthesize existing literature that relates to the research topic (Shaikh & Karjaluoto, 2015). The literature review provides an overview of existing knowledge on the phenomenon of a study (Boell & Cecez-Kecmanovic, 2015). Researchers conduct literature reviews to generate new ideas related to the phenomenon of the study (Ishak & Osman, 2016). The purpose of this qualitative multiple case study was to explore strategies bank managers use to mitigate the level of inherent risk in their retail loan portfolios. The central research question for the study was what strategies do some bank managers use to mitigate the level of inherent risk in their retail loan portfolios? To answer the research questions and find the potential solutions to the problem, I explored the literature relating to the established framework and the topic.

In this literature review, I identified professional and academic literature on banks' success and related topics other researchers have explored. A comprehensive exploration of the research question may be useful in providing additional information for bank managers to mitigate the level of risk in the retail loan portfolio. The literature review content in this study was a comprehensive, critical analysis and synthesis of the literature related to the conceptual framework of ERM. The findings of this study may provide bank managers with information on how to develop and implement strategies that reduce the level of inherent risk in retail loan portfolios.

Some of the databases and library materials I used to search the literature of this study included ProQuest Central, Accounting, Tax & Banking Collection, Dissertations & Theses at Walden University, ABI/INFORM Collection, Emerald Management Journals, and Walden University Library databases like EBSCOhost and ProQuest. Other sources of literature for this study included Business Source Complete, Academic Search Complete, ScienceDirect, Thoreau Multi-Database Search, and SAGE Journal.

Torraco (2016) suggested that researchers should begin the search for literature by listing keywords. The keywords I utilized to narrow online search included *banking, retail loan portfolio, risk, inherent risk, enterprise risk management, internal control, risk management, risk assessment, risk appetite, residual risk, risk culture, silo (traditional), and risk management.* Using these keywords, I found 279 relevant sources to use in this study, primarily consisting of peer-reviewed articles published since 2017 (see Table 1).

Table 1

Sources Used in the Study

Sources	Before 2017	Since 2017	Total	Percentage of total
Peer-reviewed articles	30	224	254	91%
Non-peer-reviewed articles	4	7	11	4%
Books	2	9	11	4%
Dissertations	0	3	3	1%
Total	36	242	279	100%
Percentage of total	13%	87%	100%	

ERM Framework

Risk is the possibility of loss or exposure to loss, a hazard, an uncertainty, or an opportunity (Rae et al., 2017). Bessis (2015) argued that risk is ultimately a multilayered concept indicating that there is a great deal at stake for entities. Sadgrove (2016) measured risk on two scales: possibility and likelihood. Possibility refers to the intensity or magnitude of loss or damage, whereas likelihood is the frequency of loss, damage, or a missed opportunity. Thus, a risk might be an opportunity or a threat. The management of risk and reward is challenging, as evidenced by the 2008-2009 economic crisis and its related uncertainty (Graham & Kaye, 2015).

Risk management has been widely debated as institutions and entities adopt strategic risk management. In recent times, there have been significant changes in how risk is managed on an entity level. Previously, risk management was in silos, where different entity units handled risk independently (Bogodistov & Wohlgemuth, 2017). Bessis (2015) argued that risks are interconnected and must be managed accordingly.

Consequently, Lam (2016) argued that most failures associated with poor risk management could often be attributed to a convergence of multiple factors. There is not one correct approach for managing risk, but there appears to be some consensus about the need for the institutionalization of enterprise-wide risk management (Kamalahmadi & Parast, 2016). Hence, risk management is emerging as a priority for most organizations (Hopkin, 2017). The underlying premise of ERM is that every entity exists to provide value for the stakeholder (Stulz, 2015).

ERM is a process affected by the organization's board of directors, management, and other personnel (Wu et al., 2015). The ERM process applies in strategy settings across the entire organization (Wu et al., 2015). ERM is designed to identify potential circumstances that may affect the organization and manage risk within its risk appetite to provide reasonable assurance regarding the achievement of objectives (Wu et al., 2015). Baharuddin and Yusof (2018) stated ERM was born out of the realization that banks are operating in a dynamic environment that is characterized by constant, complex, and rapid changes; thus, it requires a more comprehensive and integrated approach to risk management. ERM has emerged as a best practice technique for many banks to mitigate risk and enhance control vigorously since the 2009 financial crisis (Dorsey, 2015). Based on information gathered from literature, other authors define ERM as a rigorous and coordinated approach to assessing and responding to all risks that affect the achievement of an organization's strategic and financial objectives (Lam, 2016). Dorsey (2015) described ERM as a discipline by which enterprises monitor, analyze and control risk

across the enterprise, with the objective of identifying underlying correlation and optimize the risk-taking behavior in a portfolio context.

ERM was born out of the rationalization that banks are operating in a dynamic environment that is characterized by constant, complex, and rapid changes and requires a more integrated approach to risk management (Grace et al., 2015). According to Hoyt and Liebenberg (2015), ERM is a process that takes a holistic view of risk management. Graham and Kaye (2015) described ERM as a discipline by which enterprises monitor, analyze, and control risks across the enterprise, with the goal of identifying underlying correlation and further optimize the risk-taking attitude in a portfolio. Berry-Stölzle and Xu (2018) suggested ERM is a process that manages all risks in an integrated, holistic manner by controlling and coordinating any offsetting risk across the entity.

COSO's ERM integrated framework is an example of a comprehensive framework that applies ERM in a strategic setting (Lam, 2016). Starting at the top and supporting the organization's mission is what differentiates COSO from other risk frameworks (Berry-Stölzle & Xu, 2018). According to Prewett and Terry (2018), the ERM integrated framework describes the connection between objectives (what the organization strives to achieve) and the ERM components (what is needed to achieve objectives).

The ERM framework is one of the most widely recognized and applied risk management publications and tools worldwide. The ERM framework outlines how senior managers and executives can have greater confidence in addressing many critical 21st-century business challenges as they navigate evolving markets, segments, rapid

technological change, and heightened regulatory and compliance focus (Lam, 2016). Minotra and Burns (2016) suggested the ERM framework can turn preventative, process-based risk monologue into a proactive, opportunistic-focused conversation to uncover how risk management can create, preserve, and realize quality and value.

Every business decision involves an element of risk (Wolke, 2017). There are risks involved in making investments, hedging with derivatives, or extending credit to retail customers or business entities (Gatzert & Martin, 2015). Over time, business decisions and risks collectively build up into entities entire risk portfolio that constitutes the entities risk profile (Graham & Kaye, 2015). With such a complex, interlocking system of entity-wide risks, it is obvious that a silo-based risk management strategy is inferior to the integrated framework of ERM (Prewett & Terry, 2018). ERM provides integrated analyzes, integrated strategies, and integrated reporting regarding an entity's key risk, which addresses entities' interdependence and aggregate exposures (Prewett & Terry, 2018). Regulators, rating agencies, business executives, and academics have advocated an innovative approach to risk management (Wolke, 2017). ERM proposes the integrated management of all risks an organization faces, which inherently requires alignment of risk management with corporate governance strategies (Bromiley et al., 2015).

Historical Development of the ERM Framework

Since the 20th century, insurance is the primary way companies have managed risk (Wu et al., 2015). In the 1970s and 1980s, entity managers started to introduce quality assurance to ensure that products conformed to their specifications (Wu et al.,

2015). The ISO 9000 standards epitomize adherence to compliance (Sadgrove, 2016). In 1995, the concept of risk management evolved with the publication of the Australian risk management standard AS/NZS 4360 (Sadgrove, 2016). According to Diwan et al. (2018), ERM relates to and originates from the portfolio theory proposed by Markowitz (1952). The goal of this theory is to minimize the overall impact of risk through a holistic management approach (Diwan et al., 2018).

The concept of ERM was developed in the mid-1990s (Wu et al., 2015). Risk management begins with finance, focusing on the ways to avoid bankruptcy in dynamic environments. The field of risk management grew with the deregulation of financial institutions, as well as issues with some public traded companies. There exist multiple risk management frameworks, including that of the COSO 2004. COSO is the leading accounting standards organization in the United States. In 2004, COSO published ERM integrated framework. ERM is a systematic, integrated approach to managing all risks facing an entity (Gatzert & Martin, 2015). The framework allows managers to identify, evaluate, and manage significant corporate risk from a holistic perspective (Renn, 2017). The ERM framework was undoubtedly encouraged by traumatic events like the 9/11 and business scandals like Enron and WorldCom. ERM is applied in a strategic setting and across the enterprise, and it is designed to manage risk within the entity's risk appetite (Graham & Kaye, 2015).

The development of an ERM program enables companies to manage risk in a holistic manner as opposed to the silo-based perspective in traditional risk management frameworks (Gatzert & Martin, 2015). Every business faces parallel challenges of

growing earnings and managing risks. A striving organization needs to identify and meet customer needs with quality services and products, recruits and retain talents, and correctly make smart and proactive business and investment decisions that will profit generation in the future (Lam, 2016). Therefore, the pursuit of new profit-generating opportunities means the business must take on a variety of risks (Lam, 2016). For the purpose of this study, it is necessary to restate that ERM is not a theory rather a framework.

ERM Application

All entities face uncertainty, and the challenge for management is to determine how much uncertainty to accept as it strives to improve stakeholder value (Wu et al., 2015). Banks face a wide variety of risks that can have an enormous impact on the outcome of their operations (De Simone et al., 2015). The risk management process and application are well established, although presented in a number of different standards, ways, guides, publications, and terminologies. ERM enables management to effectively deal with uncertainty and associated risk and opportunity, enhancing the capacity to build value (Renn, 2017). However, the risk management framework cannot take place in isolation (Lam, 2016). The framework needs to be supported by other frameworks within the organization (Frazer, 2015). Several risk management standards exist worldwide, including the Institute of Risk Management (IRM) Standard, British Standard 311100. There is also the American COSO ERM framework (Renn, 2017). The well-respected and established Australian Standard AS 4360 was withdrawn and replaced by ISO 31000. The ISO 31000 Standard includes many features that mirror the AS 4360 Standard.

Wolke (2017) described ERM as a new paradigm for dealing with organizational risk that allows policy makers to focus on ways to improve corporate governance and general risk management. Global initiatives on internal control, corporate governance, and risk management have driven the use of ERM (King, 2016). Consolidated risk management allows entities to overcome limitations associated with traditional silo-based risk management practices (Wolke, 2017). Although the extant literature suggests that ERM deployment leads to value creation, the systematic studies failed to specifically indicate the components that lead to value creation (Pierce & Goldstein, 2018).

ERM provides a methodology for managing the entire range of risks and is the measurement and qualification of risk, as well as establishing individual risk ownership (Prewett & Terry, 2018). Managers use the ERM framework to ensure that all risks facing the organization are identified, analyzed, and quantified (Wolke, 2017). Farrell and Gallagher (2015) defined ERM as a discipline by which entities monitor, analyze, and control risks across the enterprise, with the goal of identifying underlying correlations and thus optimizing the risk-taking behavior in a portfolio. In literature, ERM is synonymous with integrated risk management, holistic risk management, enterprise-wide risk management, corporate risk management, and strategic risk management (Graham, 2015). Moreover, risk awareness carries the effects of organizational environment and reporting processes to risk management effectiveness (Bailey et al., 2017). For the purpose of this study, I reviewed the COSO ERM framework that is an example of a comprehensive framework that applies ERM in a strategic setting.

The COSO ERM Framework

COSO is an independent private sector initiative devoted to assisting organizations to develop effective internal control, deter fraud, mitigate risk and improve the performance of organizations (Kimbell, 2017). COSO's internal control integrated framework was initially intended to identify the root cause of the financial failures of the 1980's' and develop a control model that reflects those root causes (McNally, 2015). COSO is made up of five private sponsoring organizations, namely the American Institute of Certified Public Accountants (AICPA), the Institute of Internal Auditors (IIA), the American Accounting Association (AAA), the Institute of Management Accountants (IMA), and Financial Executives International (Kimbell, 2017).

COSO is applicable to all industries and all types of risk (Graham, 2015). Starting at the top and supporting an organization's mission is what differentiates the COSO ERM framework from other risk management frameworks (McNally, 2015). The connection between business objectives (what the organization strives to achieve) and the ERM components (what is needed to achieve the objectives) is the core of the COSO ERM framework (Lam, 2016). In 1992, COSO published an integrated framework for internal controls, which constituted five components (Kimbell, 2017). In 2013, COSO issued a comprehensive update to its original 1992 internal control integrated framework (Kimbell, 2017). The COSO framework is the de facto framework utilized by more than 99% of entities required to comply with the Section 404(b) internal controls over financial reporting (ICFR) requirement (SOX; Bailey et al., 2017). Section 404(b) of the Sarbanes Oxley Act of 2002 requires that the management of public companies assess the

effectiveness of internal control of issuers of financial reporting (Bailey et al., 2017). Public company auditors must attest to, and report on, management's assessment of internal control (Kimbell, 2017; Setiyawati, 2016).

COSO broadly defines ERM as the culture, capabilities, and practices integrated with strategy setting and its execution that entities rely on to manage risk in creating, preserving, and realizing value (Shad et al., 2018). COSO components of internal control include control environment, risk assessment, control activities, information and communication systems, and monitoring (COSO, 2013; Mukhina, 2015). The control environment component of internal controls within an organization is the tone at the top with respect to the effectiveness of internal control (Murphy & Free, 2016). The tone at the top establishes a major influence on ethical business practices (Patelli & Pedrini, 2015). The control environment component consists of (a) the organizational structure, (b) authority and responsibility assignment, (c) the integrity and ethical values, (d) human resources policies and procedures, (e) the financial reporting competencies, (f) management's philosophy and operating style, and (g) the board of directors' oversight (COSO, 2013; Rubino et al., 2017). Dimitrijevic (2015) stressed the importance of a control environment in businesses to help mitigate the risk of employees committing fraud.

The COSO published internal control, and integrated framework was a major influence on the evolution of the internal audit and risk management (Bogodistov & Wohlgemuth, 2017). During the strategic planning process, an organization's

management sets strategic objectives, selects appropriate strategies, and establishes supporting objectives that cascade throughout the organization (Murphy & Free, 2016).

The COSO framework includes four categories of organizational objectives. The first category is strategic objectives, which are those high-level goals that align with the mission of the organization (Murphy & Free, 2016). Strategic objectives are defined as critical to the success of corporate strategy (De Simone et al., 2015). For instance, it achieved a 60% market share over a two-year timeframe. The second category is operations that relate to the efficiency and effective use of the organization's resources, for instance, striving for a less than 5% default rate on loans issued on an annual basis (Murphy & Free, 2016). Strategic and operational categories may be subjected to externalities that may be beyond the control of management. The third category is reporting, which relates to the reliability of the organization's internal and external reporting (Murphy & Free, 2016). Internal reporting is critical to ensure the key indicators are measured and monitored to enable managers to take action when necessary (De Simone et al., 2015). External reporting is important to make sure the organization meets the needs of its stakeholders (Bogodistov & Wohlgemuth, 2017). For instance, the continuous flow of cash to meet strategic objectives. The fourth category is compliance objectives that conform to all applicable laws and regulations (De Simone et al., 2015). For instance, compliance with the Sarbanes Oxley Act for public traded companies.

Organizations' achievement of reporting and compliance objectives are generally within the organizations' control (De Simone et al., 2015). This is not always the case with strategic and operational objectives (De Simone et al., 2015). ERM framework

assists in providing reasonable assurance that management, and the board in its oversight role, are made aware in a reasonable time frame of the extent to which the entity is moving towards achieving its objectives (De Simone et al., 2015).

In September 2017, the COSO board released an update to the 2004 ERM Integrated Framework. The framework is widely used by management to enhance an entity's ability to manage uncertainty and consider the level of risk to accept as management strives to increase value (Tomas et al., 2017). The initiative enhanced the framework's content and relevance in an increasingly complex business environment for entities to attain better value from ERM (Rubino et al., 2017). The COSO internal control integrated framework expands from five components of internal control to eight components of ERM (Lundqvist, 2014). The components include

- *Internal environment*. This is the control environment with the additional concept of risk management philosophy and risk appetite, integrity, ethical values, and the environment in which the entity operates (Rubino et al., 2017). This component forms the basis for which risk and controls are understood and dealt with by the entity's personnel. The internal environment sets the foundation for how risk is viewed (Tomas et al., 2017).
- *Objective setting*. Objectives must exist before management can identify potential events affecting their results (Berry-Stölzle & Xu, 2018). ERM ensures management has put in place a process to set objectives, and the chosen objectives support aligning with the entity's mission, vision, objectives and are consistent with the risk appetite (Lundqvist, 2014).

- *Event identification*. Internal and external events affecting the achievement of an entity's objectives must be identified, distinguished between risks and opportunities (Lundqvist, 2014).
- *Risk assessment*. Risks are assessed per their likelihood and impact on both an inherent and residual basis (Berry-Stölzle & Xu, 2018). Risks are analyzed, considering likelihood and impact, as a basis for determining how they should be managed (Lundqvist, 2014). Risk assessments require proper identification, measurement, analysis, and documentation of significant business activities, associated risks, and existing risks (Berry-Stölzle & Xu, 2018). Financial risk assessment focuses on identifying control weaknesses and material errors in financial statements such as incomplete, inaccurate, or unauthorized transactions (Rubino et al., 2017).
- *Risk response*. Risk response techniques include avoidance, reducing, accepting, and sharing the risk (Rubino et al., 2017). The risk response techniques should align with residual risk, risk tolerance, and the entity's risk appetite (Murphy & Free, 2016)
- *Control activities*. Policies and procedures must be established and implemented to ensure that risk management actions are effectively carried out (Murphy & Free, 2016). Preventive controls are designed to deter the occurrence of undesirable events, while detective control is designed to identify operational weaknesses and help effect corrective actions (Tomas et al., 2017).

- *Information and communication*. Relevant information is identified, captured, and communicated in a timeframe and form that enable users of the information to make informed decisions (Anderson, 2017). Effective communication occurs when information flows horizontally and vertically across the entity (COSO, 2013; Rubino et al., 2017).
- *Monitoring*. Ongoing monitoring is essential for the entity to proactively reach change (Berry-Stölzle & Xu, 2018). A separate evaluation is necessary to provide assurance the ongoing management activities are well designed and operate effectively (COSO, 2013; Rubino et al., 2017).

Graham (2015) asserted that the implementation of ERM is driven by the combination of internal and external factors (Graham, 2015). This framework enables entities to effectively and efficiently develop systems of internal controls that adapt to evolving business and operating environments, mitigate risk to an acceptable level while supporting sound decision making and governance to the entity (COSO, 2013; Rubino et al., 2017).

In September 2017, the COSO board collaborated with PriceWaterhouseCoopers and released an update to the 2004 ERM integrated framework. Rubino et al. (2017) asserted that the new COSO ERM framework is the first authoritative framework to focus and provide some guidance on the vital role of risk management in long-term value creation and preservation. COSO is one of the most widely recognized and applied risk management frameworks worldwide (COSO, 2013). This initiative enhanced the framework's content and relevance in the increasing business environment so that entities

can better attain value from a holistic and enterprise-wide approach (Anderson, 2017). The update further highlights the importance of ERM in strategic planning. The update emphasizes embedded ERM throughout the entity, as risk influences strategy and performance (Banerjee, 2016). Challenges and evolving expectations faced by business leaders and board members require an understanding of economic markets, evolving technologies, and changing demographics (Anderson, 2017).

The new ERM - integrating with strategy and performance clarifies the relevance of ERM strategic planning (Anderson, 2017). ERM is embedded throughout the entire entity since risk influences and aligns strategy and performance across all departments and functions (Berry-Stölzle & Xu, 2018). The 2017 updated COSO ERM framework consists of five interrelated components. The components include:

- *Governance and culture*. Governance sets the entity's tone and establishes oversight responsibilities for ERM (Anderson, 2017). Culture pertains to ethical values, desired behaviors, and the understanding of risk in the organization (COSO, 2017).
- *Strategy and objective setting*. Objective setting, strategy, and ERM work together in the strategic planning process (Berry-Stölzle & Xu, 2018). A risk appetite is establishing and aligned with strategy while business objectives put the strategy into practice that serves as a basis for identifying, assessing, and responding to risk. (COSO, 2017)
- *Performance*. The board and management need to identify and assess risks that may impact the achievement of strategy and business objectives (Berry-

Stölzle & Xu, 2018). Risks are prioritized by severity in the context of risk appetite (Jing et al., 2017). The entity manager and the board then select risk responses and take a portfolio view of the amount of risk at stake (Jing et al., 2017). The results of this analysis are shared with key risk stakeholders (COSO, 2017).

- *Review and revision*. Risk officers and stakeholders review entity performance and ascertain how well the ERM components are functioning, the substantial changes identified, and what revisions are needed (COSO, 2017).
- *Information, communication, and reporting*. ERM mandates a continuous process of obtaining and sharing necessary information from both external and internal sources, which flows horizontally and vertically (COSO, 2017).

The five components in the 2017 updated framework are supported by a set of principles. These principles cover a wide range of items from governance to monitoring (Berry-Stölzle & Xu, 2018). These principles are manageable in size and describe practices practitioners can apply in different entities regardless of the size, type, or sector (COSO, 2017). Adhering to these principles can provide bank managers and the board with the reasonable expectation that the entity understands and strives to manage the risks associated with its strategy and business objectives (COSO, 2017). The 20 governing principles are subdivided into five categories:

- *Governance and culture*. The governance and culture category comprises of the following principles: exercise board risk oversight establishes the organizational structure, defines desired culture, demonstrate the commitment

to core values, and attract, develop, and retain capable individuals (COSO, 2017).

- *Strategy and objective setting*. The strategy and objective setting category comprise the following principles: analyses business context, defines risk appetite, evaluate alternative strategies, and formulate business objectives (COSO, 2017).
- *Performance*. The performance category comprises of the following principles: identifies risk, assesses the severity of the risk, prioritizes risk, implement risk responses, and develop portfolio view (COSO, 2017).
- *Review and revision*. The review and revision category comprises the following principles: assess substantial change, reviews risk performance, and pursues improvement in the ERM (COSO, 2017).
- *Information, communication, and reporting*. The information, communication, and reporting category comprise the following principles: leveraging information and technology, communicates risk information, and report risk, culture, and performance (COSO, 2017).

Academia and scholars have no doubt that entities will continue to face a future of volatility, complexity, and ambiguity (Murphy & Free, 2016). However, ERM will be an important part of how bank managers make decisions in the future. Lundqvist and Vilhelmson (2018) suggested that regardless of the type and size of the entity, strategies need to stay true to the mission. The updated framework clarifies that ERM is not an isolated activity (Berry-Stölzle & Xu, 2018). An effective ERM process should leverage

the processes, functions, departments, and committees that already manage risk (Lam, 2016). Ewers (2017) asserted that by instilling a culture of risk awareness and transparency, organizations could create an environment where everyone takes the role of a risk manager. An ERM process enables entities to benefit from an integrated approach to risk management as it looks at portfolio diversification (Lam, 2016). Although the enterprise-wide risk management framework does not eliminate risk, it enhances the maximization of the entity's value (Jing et al., 2017).

The ERM Framework and Competitive Advantage

Banks can gain a competitive advantage only when they implement strategies that create value, making it challenging for potential or current competitors to imitate (Graham & Kaye, 2015). Managing risk from an integrated perspective can help banks to achieve their objectives and attain competitive advantage (Lam, 2016). Ewers (2017) asserted that the management of inherent risk is vital towards achieving organizational goals and competitive advantage. An entity's potential or current competitors must be unable to replicate the benefits of the company's strategy to attain and sustain a competitive advantage (Barney, 1991). The concept that firms have different strengths and weaknesses lies in their access to and control of strategic resources and the development of critical skills (Douglas, 2016). When banks' resources are economically valuable, relatively rare, difficult to imitate, and imperfectly mobile, bank managers can explain the differences in an entity's performance (Douglas, 2016). Firms can attain a competitive advantage through social capital, organizational process, and innovation (Koroteeva et al., 2016). Firms can create agility, adaptability, and alignment as distinct

business strategies to gain sustainable competitive advantage (Dubey et al., 2018). With such a complex, interlocking system of company-wide risk, it is obvious that a silo-based risk management strategy is inferior to the integrated and holistic framework of ERM (Lam, 2016). According to Murphy and Free (2016), the level of strategic risk management implementation in an entity is based on several contingent variables such as board independence, firm size, ownership structure, growth rate, effective communication, organization risk culture, regulation, and industry type. Ewers (2017) asserted that for a risk management system to be effective, it must be able to coordinate the various sectors responsible for risk.

According to the ERM framework, ERM is endemic in that it considers all major risks facing an entity and an inherent part of corporate strategy (Wu et al., 2015). Brustbauer (2016) noted that enterprise risk could include a variety of factors with potential impact on banks' activities, processes, and resources. The risk continues to evolve as the public changes its views on products and services over time. Bailey et al. (2017) asserted that a systematic approach to risk management could lead to more rational organizational management and competitive advantage. King (2016) noted that ERM seeks to provide means to recognize and mitigate risk and provide the tools to address those risks. Epstein (2018) suggested that one of the most critical factors for ERM is the integration of risk management into business processes. ERM provides integrated analyses, integrated strategies, and integrated reporting pertaining to the entity’s key risk, which addresses their interdependencies and aggregate exposures (Gatzert & Martin, 2015). According to Douglas (2016), profit maximization entities

should consider implementing ERM programs to mitigate risk and boost competitive advantage. The applied conceptualization of ERM may help entities adjust to changing environments to gain strategic advantage, thus increase competitiveness and business success (Abu Hussain & Al-Ajmi, 2017). Frazer (2016) noted ERM is the discipline by which entities monitor, analyze, and control risks from across the organization, with the objective of identifying underlying correlation and thus optimize the risk-taking behavior in a portfolio context. Therefore, entities that have successfully integrated the ERM process into both the strategic and everyday activities display a superior ability to uncover risk dependencies and consequently enhance value (Farrell & Gallagher, 2015).

Recommendation for Using the ERM Application

ERM incorporates a comprehensive approach to risk management, aligning with the entity's strategy, objectives, and mission while involving employees at all levels of the entity (Graham, 2015). Pett et al. (2015) argued that risk has holistic effects, creating the need for comprehensive management. This strategic application of dealing with risk identifies and assesses risks faced by entities and examines potential control mechanisms (Hopkin, 2018). ERM involves a broader perspective that considers several types of risk associated with the entity's objectives.

The ERM framework provides a better understanding of risk appetite and tolerance (Annamalah et al., 2018). However, more clarification is needed on the updated framework. For instance, many entities have struggled to find a mechanism to express risk appetite and tolerance (Anderson, 2017). Other entities have developed a slightly more granular risk appetite methodology (Brustbauer, 2016). However, very few entities

have succeeded at identifying helpful appetite and tolerance statements (Cohen & Falcione, 2016). The new ERM update framework is a step in the right direction that will facilitate good debates in the future.

The framework also focuses on strategy within the context of the entity's core values, vision, and mission (COSO, 2017). By focusing on the inherent risk in carrying out strategies and achieving business objectives, an entity can improve the likelihood of managing and mitigating risks effectively and efficiently (Lam, 2016). Risk management is an overlay and additional objective that complements the expected return strategy the entity chooses (Wisutteewong & Rompho, 2015). While the framework does not translate to strategic risk, it can provide a mechanism to evaluate strategic options (Anderson, 2017). Risk management is all about strategy and performance (COSO, 2017). Risk management is an integral component in formulating better decisions (Anderson, 2017). According to Wisutteewong and Rompho (2015), successful entities that use the ERM framework practice the five categories and 20 categories of the strategy-focused entity to accomplish strategic focus and alignment.

Value is also a major point of focus with the new framework. Each entity defines value differently; however, an entity's purpose is to provide value to stakeholders (Hopkin, 2018). When making decisions, as part of a risk-aware culture and opportunities are filtered through the optimized risk management process, the entity's performance likely trend positively (Dubey et al., 2018). Managers assert that the most important aspect of the updated ERM framework provides a means to assess an entity's risk practices (Rae et al., 2017). Jing et al. (2017) assessed the ERM maturity level by using

risk management principles. For entities to benefit from this framework, they need to be at the maturity level, which helps facilitate a tailored assessment that factors in the culture and complexity of the entity (Dubey et al., 2018).

The use of an ERM framework increases risk awareness and eventually increases knowledge that leads to sound decision-making (Ogutu et al., 2018). Bogodistov and Wohlgemuth (2017) argued that without a holistic ERM, entities could have a higher acceptable risk level compared to an entity with a mature enterprise-wide risk management framework where risk is better mitigated. Whereas traditional risk management techniques limit earnings volatility when compared to the enterprise-wide risk management framework help reduce volatility by preventing the aggregate of risk (Hopkin, 2017). In addition, technological advancements in computer software and increasing sophisticated statistics and economic analytical models have made the ERM framework more viable and robust (Setiyawati, 2016).

Limitations of the ERM Framework

Although the ERM framework provides assurances to stakeholders that inclusive goal achievement would be at minimal risk, it has limitations (Dubey et al., 2018). The ERM framework implemented by entities in the past has not done well to focus on strategic value creation objectives (Lam, 2016). However, the growing empirical research on ERM is not without limitation. Sadgrove (2016) argues that the issue of endogeneity and other related issues, especially of methodology, make it challenging to draw general conclusions about ERM effectiveness. Lam (2016) also argued that even though prominent framework claims to represent “best practices,” there appeared to be no

theoretical or empirical evidence about such claim. In addition, despite the extensive literature on ERM, practitioners have not adequately addressed inter-firm differences in enterprise-wide risk management.

Lundqvist (2014) observed that ERM has no defined process that assures total management of risk or focuses on the sensational and obvious risk while ignoring the routine. Sadgrove (2016) explained the goal of ERM is to address risk in all areas of the companies. Murphy and Free (2016) argued ERM is subject to interpretations and turns to be elusive rather than descriptive. In addition, Graham (2015) stated ERM is reactive as opposed to proactive. Graham further stated ERM framework does not take into consideration the cost of mitigation. Therefore, management understands the severity and likelihood with no assessment of mitigation cost. If mitigation cost is assigned to risk assessment decisions, stakeholders will make a better and informed decision based on the cost-benefit analysis (Graham, 2015). ERM is a system addressed, developed, and implemented by individuals, and the human resource system drives its success (COSO, 2017). Factors causing technical system failures, such as misguided cultural assumptions and values, fiscal pressures, errors, injudicious agentic decisions, and control failure, can cause an ERM system to fail (Agarwal & Ansell, 2016).

Alternative Theories

The founding members of the COSO framework are dedicated to providing thought leadership through the development of a comprehensive framework and guidance on internal control, ISO 31,000, and fraud deterrence designed to improve board oversight and entity overall performance (Graham, 2015). Alternative business theories

and frameworks to the COSO ERM framework include; the general system theory, fraud triangle model, and portfolio theory. These models and theories encompass various means managers utilize to achieve organizational goals (Länsiluoto et al., 2016).

The General System Theory

von Bertalanffy introduced the general systems theory by establishing that a system is an entity and coherently whole (Hughes et al., 2015). According to Keynes (2018), the general system theory is a logical-mathematical discipline applicable to all sciences concerned with systems. von Bertalanffy (1972) noted that entities could use the system thinking concept to understand how the different components of a system interact and affect one another (Tittle, 2018). From the systems theory perspective, an entity can achieve its objectives when all key tasks form a whole system (Fang et al., 2015). Systems exist when interdependent, but related components are achieving a valued pre-set objective (Hughes et al., 2015). General systems theorists argued that an entity is a whole system that consists of interrelated and interdependent activities (Keynes, 2018). These activities consist of processes and techniques for investigating and improving the entire system (Hughes et al., 2015). The performance of one task in an entity has a direct effect on the other components (Millar & Porter, 1985).

Systems thinking provide a deeper understanding of how a dynamic and complex system behavior contributes to firm success (Tittle, 2018). Systems theory focuses on the interrelationships, influences, and dynamics of business activities and how they affect the firm in achieving its objectives and attain sustainable performance (Brown & Ulgiati, 2018). Critical components, interdependency, relationships, and objectives represent

fundamental elements of systems theory. The key components of a firm include its activities, which comprise a system that is critical for the firm to operate and contributes to achieving the overall objectives (Hughes et al., 2015). An entity's systems and processes consist of the end-to-end sequencing of activities required to acquire and transform resources into products, services, and solutions that are of value to customers (Paucar-Caceres et al., 2016). The activities are related, and their relationships affect firm performance (Hughes et al., 2015). By observing a phenomenon with a holistic perspective, firm managers and owners can understand and improve firm performance and achieve sustained competitive advantage (Fang et al., 2015).

According to the general system theory, a firm is a system that consists of parts that are interdependent and connected (Tittle, 2018). The activities of the firm are interconnected, and the effect in one part of a chain can affect performance in other parts. Therefore, the performance of one activity directly affects the cost and effectiveness of the others (Millar & Porter, 1985). The entity's systems and processes comprise activities necessary to acquire and transform resources into assets that will return value to the firm. Through these systems and processes, entities can accumulate and leverage tangible and intangible resources that result in value creation (Peace et al., 2018).

Bank managers can understand the relationships between different parts of a system and how the components depend on one another as a whole, rather than looking at one key component (von Bertalanffy, 1972). Business owners and managers can use systems thinking to broaden sustainability initiatives beyond optimizing efficiency by focusing on strategy rather than tactics (Waller et al., 2015). Using systems thinking

approach, bank managers can understand how the different activities of a bank interact and how each department affects or is affected by other departments (Turner & Endres, 2017). Considering that bank activities are complex and influenced by various factors, bank managers can use systems thinking to analyze firm performance (Fang et al., 2015). Bank managers can use systems thinking to establish accountability in bank activities, ensure fair treatment of stakeholders, and create a sustainable impact on communities (Tittle, 2018).

Bank managers and senior executives can use the systems thinking approach to resolve organizational problems by establishing that the activities of the bank are linked and interconnected (Tittle, 2018). Bank managers can view a bank as a system comprising of different components that are intertwined (Turner & Endres, 2017). The components include customers, suppliers, economy, technology, cultural, physical, and the legal environment (Więcek-Janka et al., 2016). Bank managers should view their organizations as mental constructs to enable them to conceptualize, learn, and improve problematic situations (Paucar-Caceres et al., 2016). Entities can achieve their goals when all activities contribute and operate efficiently. However, the failure of one key component may threaten or reduce firm performance (Hughes et al., 2015). From the systems thinking perspective, firms can attain sustainable growth, minimize risk, and performance by understanding the relationship and interaction between the economic, social, and environmental factors (Grayson & Hodges, 2017; Pollanen et al., 2016). These activities work together, influence each other, and have a positive interaction (Fang et al., 2015).

The Fraud Triangle

In the 1950s, an American criminologist, Donald R. Cressey, developed the fraud triangle framework to illustrate the components that cause an individual to commit fraud (Cressey, 1952). The fraud triangle framework has evolved over time and is used to understand why employees commit fraud, how it is detected, and the preventive measure to mitigate the risk (Free, 2015). Marshall and Cali (2016) suggested that components of fraud triangle theory are dynamic and could be taken into consideration when determining why individuals commit fraud. Perceived pressure is a motivating factor to commit fraud (Said et al., 2018); perceived opportunity paves the path of the fraudster to commit fraud (Norazamina et al., 2018); and rationalization helps the fraudster justify their action (Lokanan, 2015). Norazamina et al. (2018) defined three elements that need to be present for an employee to commit fraud. These elements included (a) non-sharable financial problems, (b) perceived opportunity, and (c) rationalization.

Bank managers use the fraud triangle framework to understand how and why bank employees commit fraud (Kramer, 2015). In-depth knowledge and understanding of the fraud triangle can assist bank managers in fraud prevention (Kramer, 2015; Lokanan, 2015). Kramer (2015) noted that bank managers deploy the fraud triangle to address fraud risk elements proactively. Bank managers with an understanding of the opportunity component of the fraud triangle are quick to modify and strengthen internal controls (Glodstein, 2015). Bank managers must ensure strong internal control when using the fraud triangle as an instrument to detect and prevent fraud schemes (Lokanan, 2015). To gain insight into the thinking of individuals and provide training on codes of ethics, bank

managers adapted the fraud triangle methodology (Kramer, 2015; Verschoor, 2015). Understanding the fraud triangle, bank managers maintain a positive work environment to mitigate fraud occurrence (Kramer, 2015).

While regulators and practitioners utilize and support the fraud triangle framework in the detection and prevention of fraud, the framework is not free from limitations (Stone, 2015). Glodstein (2015) noted that every fraud case is unique; therefore, some critics of the framework believe it has a narrow interpretation (Murphy & Free, 2016). Other critics noted that the fraud triangle addresses the motive of fraud from an individual's perspective whereas, perceived pressure and rationalization cannot be observed and controlled by the organization (Mui & Mailley, 2015). Said et al. (2018) noted that the theory provided inadequate motives on the actions of individuals capable of committing and concealing fraudulent activities.

The Portfolio Theory

The rationale behind the portfolio theory before turning to ERM is the argument that portfolio theory and holistic risk management are closely related. According to Schied et al. (2018), organizational-wide risk management is related to and originated from the portfolio theory proposed by Markowitz (1952), as they both suggest that risk should be managed on a portfolio basis. The goal of this theory is to minimize the overall impact of a given 21 risk through a holistic management approach (Schied et al., 2018). Another proposition of this theory is that the expected variance in the returns of a firm is best minimized by bringing the independent, noninteractive business units together (Jarkas & Horner, 2015).

Researchers use the portfolio theory to determine the highest return for a given level of risk (Madan, 2018). In other words, it enables the determination and selection of a portfolio with the lowest risk possible (Hwang & Pedram, 2018). The assumption of the modern portfolio theory includes the notion that the effect of the overall portfolio risk is less than the impact of the individual risks (Markowitz, 1952). Consistent with this observation, Hoyt and Liebenberg (2015) observed that by implementing an integrated risk management framework, an organization could combine its various risks into a risk portfolio resulting in increased productivity and profitability through cost savings. Further developments and improvements of the portfolio theory include; postmodern portfolio theory, stochastic portfolio theory, and fuzzy portfolio theory (Hwang & Pedram, 2018).

Risk in the Financial Markets

Risk is the possibility of an event occurring that will have an impact on the achievement of objectives and measures in terms of impact and likelihood (Bilgihan & Wang, 2016). However, estimating likelihood and impact can be difficult and challenging. Risk begins with strategy formulation and objective setting (Tittle, 2018). Halliru (2016) suggested that since no two entities are identical, each entity have unique strategies and objectives and face different types of risks. Risk does not present a single point estimate; risk represents a range of possibilities. Without a single outcome, the range is what creates uncertainty when understanding and evaluating risks (Campbell & Park, 2017). Risk is inherent in all aspects of life; risks associated with conducting a form of business are considered a business risk (Hemrajani & Sharma, 2018). Douglas (2016)

asserted that business risks are uncertainties related to the achievement of business objectives. An entity has to take some level of risk if it wants to achieve business objectives (Dubey et al., 2018; Schied et al., 2018). More ambitious objectives may require that more risk be accepted; however, if the effort is successful, the reward should also be greater.

Sadgrove (2016) stated that an entity that does not take enough risk fails by being supposed by the company that does take the necessary risks. While some risks should be avoided, other risks need to be accepted as a cost for doing business (Frazer, 2015). An entity's size, formality, management team dynamics, industry, regulatory requirements, and other demographics are just some of the potential influencing factors (Tittle, 2018). Business risk is the possibility an entity will have lower than anticipated profits or experience a loss rather than taking a profit (Schied et al., 2018). However, frameworks for assessing and developing risk-based plans vary from enterprise to enterprise. Bessis (2015) asserted that entities must develop their capabilities to respond to and mitigate risks. Developed capabilities are a strategic strength in highly competitive areas, as well as essential to the longevity of the entity (Feinstein et al., 2017).

Types of Risk in the Financial Markets

The regulations that emerged from the global financial crisis and the fines that were levied in its wake triggered a wave of change in risk function (Sweeting, 2017). The inherent risk in the retail loan liquidity risk portfolio for banks still exists despite regulations enacted by the Federal Government post the 2008 financial crisis (Silva et al., 2017). Financial institutions such as banks own large retail loans and other closed-end

loan instruments. Big banks like Wells Fargo, Citi Bank, and Bank of America underwrite loans or purchase loan portfolios of other banks; these banks also sell a portion of their own loan portfolio off to their bank competitors. Customarily, banks continually assess and reassess the loan quality within their loan portfolio. Quality can range from interest rate earned, FICO score of customers, customer payment history, and type of loan (Jian & Zhi, 2018; Laeven et al., 2016). Risk management in banks has changed substantially. Although banks share many same risks as other entities and businesses, the major risk that especially affect banks are liquidity risk, credit default risk, systemic risk, and operations risk (Cohen et al., 2014).

Liquidity Risk

Khan et al. (2017) defined liquidity risk as the risk stemming from the lack of marketability of an investment that cannot be bought or sold in due time to prevent or minimize losses. Bessis (2015) defined liquidity risk as the risk of not being able to raise cash when needed. Liquidity risk in banks arises from funding or long-term assets with short-term liabilities, thereby making the liabilities subject to rollover or refinancing risk (Waemustafa & Sukri, 2015). Liquidity risk is closely associated with other dimensions of the bank's financial structure, such as interest rate, market risk, profitability, and solvency (Rahman & Banna, 2016). Liquidity risk can be sub-divided asset and funding liquidity risk. Funding liquidity risk designates the exposure to loss if an institution is unable to meet its cash requirements, while asset liquidity risk designates the exposure to loss based upon the inability to effect a transaction at a current market price due to either relative position size (Ippolito et al., 2016). The failure or inefficiency of liquidity

management might be as a result of the strength of liquidity pressure, the preparation of the financial institution liquidity instrument, the institution condition at the time of liquidity pressure, and the inability of the institution to find internal and external liquid sources (Bessis, 2015).

Systemic Risk

Systematic risk, also known as market risk, is the uncertainty inherent to the entire market or business (Feinstein et al., 2017). This type of risk is both unpredictable and impossible to avoid completely. Over the years, financial markets and banks exhibited sudden and largely unforeseen collapses at a systematic scale (Acemoglu et al., 2015). Business managers cannot mitigate such risk through but rather hedge or utilize appropriate asset allocation strategy (Feinstein et al., 2017). Laeven et al. (2016) argued that systematic risk grows with bank size and is inversely related to bank capital, and this effect exists above and beyond the effect of bank size and capital. Estimating systematic risk in banks relies on granular data on the financial network because of hidden business interaction s between banks on confidentiality issues (Giglio et al., 2016). Laeven et al. (2016) noted that large banks are riskier or create more systematic risk than small banks. Freixas et al. (2015) suggested that the approach taken by bank managers towards identifying systematic risk is to utilize disaggregated data, including information on the composition of the bank assets and liabilities, maturity, and currency mismatching, and other balance sheet and income metrics. While enormous progress has been made in measuring and mitigating inherent bank risk, further improvements are possible,

especially in the analysis of banks' contribution to systematic risk (Ben Salah Mehdi & Boujelbene Abbes, 2017).

Credit Default Risk

Paligorova and Santos (2017) defined credit default risk as the potential of a bank borrower to fail to meet its obligations in accordance with the agreed terms and conditions. Bessis (2015) defined credit risk as the risk of losses due to borrowers' default or deterioration of credit standing. The sources of credit risk include loans, acceptances, interbank transactions, financial futures, swaps, bonds, equities, options, and the extension of commitment and guarantees and the settlement of transactions (Banks, 2016). An entity's default risk is a forward-looking measure of the entity's own probability of default or current and future risk facing its creditors (Lundqvist & Vilhelmson, 2018). Banks mitigate credit default risk by screening applicants, require collateral for a loan, perform a credit risk analysis, and by diversification of risks. Baron and Xiong (2017) noted banks could substantially reduce credit risk by lending to their customers since they have much more information about them, thus reduce adverse selection. Lundqvist and Vilhelmson (2018) argued that ERM should theoretically reduce the volatility of cash flow, agency risk, and information risk, thereby ultimately reducing an entity's default risk. Credit ratings are a commonly utilized proxy for default credit risk, and multiple credit rating studies have focused on the quantifiable data, retrospective factors, like macroeconomic factors and financial ratios, to predict credit ratings (Cornaggia et al., 2017).

Operational Risk

According to the Bank of International Settlements (BIS), operational risk is defined as the risk of loss resulting from inadequate or failed internal controls processes, people, and systems of external factors. Operational risk is fundamentally different from all other risks taken by banks. Risk is a consideration in the activities, products, and services of an entity. In contrast to conventional financial markets, it is difficult to measure and model operational risk measures. Bessis (2015) argued operational risk includes malfunctions of the information systems, reporting systems, internal risk monitoring rules, and procedures designed to take corrective actions in a timely manner. Due to operational risk management, bank managers can evaluate the entire enterprise in a holistic manner to create a detailed risk profile for senior managers and the board to make informed decisions (DeAngelo & Stulz, 2015).

Operational risks range from compliance, credit risk, information technology risk, transaction processing, human resource, liquidity, taxation, and fraud. Saeed and Izzeldin (2016) noted that operational risk governance would recognize that business line management is responsible for identifying and managing the inherent risk in products, processes, systems, and activities. Ames et al. (2015) suggested that bank personnel performing an internal and independent review on bank operations must be competent and appropriately trained with segregation from developmental projects, implementation, and operation of risk framework. To calculated operational risk capital, banks a required to use four data elements, internal loss data, external loss data, scenario analysis, business environment savvy, and internal control factors. Bessis (2015) noted banks should have a

strong control environment that utilizes policies, processes, and systems, appropriate internal controls, and appropriate risk mitigation and transfer strategies.

ERM Framework and Retail Loan Portfolio in Banking

In banking, ERM is a comprehensive risk-optimization process that integrates risk management across the entity (Kimbell, 2017). Lam (2016) stated that the board of directors ultimately makes the decisions to develop and implement an ERM framework. The ERM framework often aligns risk with the strategic objectives of an entity. ERM is not a process to eliminate risk or to enforce risk limits, rather encourage banks to take a broad look at all the risk factors, understanding the interrelationships among those factors, define an acceptable level of risk, and continuous monitoring areas to ensure that the risk defined threshold is achieved (Tittle, 2018).

Sadgrove (2016) asserted that the enterprise-wide aspect of ERM is what differentiates it most fundamental from more traditional risk management techniques. Many entities, including banks, have utilized the services of internal auditors to perform risk assessments and report their findings to senior executives and the audit committee (Feinstein et al., 2017). Douglas (2016) argued that under the internal audit approach, risks are addressed individually, sometimes without the consideration of strategic implementation. However, the ERM reduces this sole effect and ensures ongoing communication with all stakeholders (Halliru, 2016). There exists no tailored ERM approach; instead, banks can meet their specific needs with various tailored approaches that consider their complexity, resources, and expertise (Cram & Gallupe, 2016). Feinstein et al. (2017) argued that for the board and senior executives to establish a risk

culture to mitigate risk related to retail loan portfolios, they provide consistent support for the ERM framework throughout the organization, from all stakeholders. Future objectives are reasonably achieved without exceeding a predetermined, stated risk tolerance (Banks, 2016).

Laeven et al. (2016) suggested that for each uncertainty related to retail loan portfolios, a leading indicator is created along with parameters that would trigger a risk management response. On a risk assessment strategy, a risk map evolves from manager surveys to determine the priority of risks (Tittle, 2018). Glodstein (2015) noted that management identifies the cost and benefits for accepting each risk type prior to implementation. Bank managers and staff must understand the differences between risk avoidance, risk reduction, risk-sharing, and risk avoidance to better address the risk. Top management stays abreast with ERM responsibilities with a robust and reliable reporting regime. On monitoring, management reports performance versus establish risk limits to assess effectiveness (Halliru, 2016).

Transition

In Section 1 of this research study, I discussed the problem statement, purpose statement, nature of the study, conceptual framework, research question, significance of the study, and the review of the literature. In Section 2, I restate the purpose statement; review the role of a researcher and participants. This section also includes an overview of the research method and design, population and sampling method, and ethical research. The section also describes the data collection instrument, techniques of data organization, and data analysis. I finalize Section 2 with the reliability and validity of the study.

Section 3 includes the research study findings, including applications to professional practice, implications for social change, recommendations for further study, and reflection on my experience as a researcher.

Section 2: The Project

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies bank managers use to mitigate the level of inherent risk in their retail loan portfolios. The targeted population included eight bank managers from four different banks located in San Antonio, Texas, who had implemented successful strategies in managing the risk of their retail loan portfolios. The implication for positive social change is that improved strategies in managing risks might benefit residents through increased access to credit, which could empower the residents to improve and better their communities.

Role of the Researcher

The role of a researcher is to formulate the research question, select an appropriate research method and design, collect data, and analyze the data (Khankeh et al., 2015). A researcher should obtain data from participants and maintain an understanding of a study (Berger, 2015). I collected data by telephone.

To maintain integrity, a researcher should ask relevant questions, listen to the participants through an unbiased lens, and understand the complex issues of the study (Yin, 2017). To minimize bias, I approached the study as an independent observer and acted only to gather data, leaving out my personal beliefs. I used an interview protocol (see Appendix) throughout the study to ensure the integrity of the research and protect the confidentiality of the participants. Bias is difficult for a researcher to avoid during a research process (Aslanidis, 2017). Researchers should understand ethics and integrity that relate to a study to achieve research goals and objectives (Wilson et al., 2018). *The*

Belmont Report underlined ethical principles and guidelines for researchers working with human subjects (U.S. Department of Health and Human Services, 2016). *The Belmont Report* includes three basic ethical principles: (a) respect of persons, (b) beneficence, and (c) justice (U.S. Department of Health and Human Services, 2016). In addition, the *Belmont Report* sets forth documentation about informed consent, assessment of risk and benefits, and the selection of subjects. In this study, to conform to the *Belmont Report* guidelines and principles, I purposefully selected participants to eliminate vulnerable humans, and I obtained a signed informed consent from each participant confirming that each participant was willing to participate.

A researcher should reflect on prior knowledge of the issue studied (Elbaz, 2018). The professional experience I gained as a banker in my prior experience increased my interest to explore strategies bank managers use to mitigate the level of inherent risk in their retail loan portfolios. I am no longer a banker and did not have any personal or professional relationship with participants. I asked participants open-ended questions and follow-up questions when necessary. In qualitative studies, researchers learn how to minimize bias and strive for a high ethical standard during the research study (Yin, 2017).

As the researcher is the instrument in a qualitative study, the researcher should be aware of the biases during the entire interviewing process (Sorsa et al., 2015). For this study, I limited biases through the technique of bracketing. Bracketing is a common technique in qualitative analysis in which researchers identify possible personal biases and attempt to eliminate any impact the biases may have on the research process (Sorsa et al., 2015). I used bracketing to ensure that personal emotions and biases would not

impact the results of the study. Additionally, after completing the interviews, I summarized interview notes, emailed notes to participants to review, clarified any issues, and corrected incomplete and incorrect information. Member checking assures the validity of the data and increases the academic rigor of the study. I recorded pertinent information from risk policy documents, procedures, and Form 10K into qualitative notes (fieldnotes). I uploaded all the notes in NVivo (Version 11) to help identify patterns and themes.

Interview protocols are useful in enhancing unity, consistency, and reliability during the entire interview process (Powney & Watts, 2018). I followed the same interview protocol with each participant to make sure that I did not miss or skip any vital steps in the course of the interview process. My interview protocol comprised of an introduction, discussion purpose, discussion guidelines, general instruction, interview questions, and conclusion (see Appendix). Using interview protocols to establish rules and guidelines is crucial when carrying out qualitative interviews (Dikko, 2016; Yin, 2017).

Participants

Participants for a study need to have relevant experiences related to the research question to offer valuable insights (Marshall & Rossman, 2016). When carrying out a qualitative case study, researchers need to ensure the experience of participants relates to the overarching research question (Yin, 2017). In addition, participants' willingness to partake in the study is critical (Yin, 2017). The researcher should engage participants about the accuracy, fairness, and validity of the research (Latiffi et al., 2016). The

primary criterion included bank managers who have demonstrated success in managing retail loan portfolio risk as measured by their return on investment from investment decisions. I selected participants who met the willingness to participate and were bank managers located in San Antonio, Texas.

Gaining access to participants requires a specific strategy (Gülmez et al., 2016). Gatekeepers are responsible for controlling a researcher's access to the information within an entity (Gülmez et al., 2016). Researchers usually seek permission from gatekeepers to perform a study (Gülmez et al., 2016). Gatekeepers should consider their co-workers and the entities they represent in making decisions (Whicher et al., 2015). The gatekeepers for this study included senior leaders from banks and financial institutions who agreed to be a part of this research. I discussed my research with my network of bank managers, who have sufficient authority to provide approval for me to collect data. These individuals included bank managers from four different banks. All expressed interest in my study. I contacted individual bank managers until I had each sign a letter of cooperation.

I sent an introductory email to eligible participants identified by the gatekeepers after receiving Institutional Review Board (IRB) approval. Researchers can invite eligible participants to participate in a study by sending letters via email (Powell et al., 2016). The emailed letter to participants contained the purpose of the study and a consent form. Researchers use email as a tool to communicate and recruit participants to conduct research (Lenters et al., 2014). Participants might participate in studies if they have a good working relationship with the researcher (Stühlinger & Hackl, 2014). The

researcher should establish a working relationship with participants by answering questions participants might have about the research study (Grieb et al., 2015). Thus, I explained to participants the purpose of the study, the procedures, the risk and benefits of participating in the study, and the confidentiality of participants. All participants who met the established criteria and agreed to participate in the study reviewed and signed a consent form. The signed consent form was transmitted by email. The consent form provided the purpose of the study and confirmation that the participant's identity and confidentiality would not be compromised. The consent form also contained information that the individual's participation in the study was voluntary.

Research Method and Design

Research Method

McCusker and Gunaydin (2015) identified three broad methods of inquiry available to researchers: qualitative, quantitative, and mixed methods. Once a researcher develops a research question, it is essential to select an appropriate research method (Khankeh et al., 2015). To explore the strategies to mitigate inherent risk in a retail loan portfolio, I chose a qualitative research method. Qualitative researchers explore the *how* and *why* of social events involving human experiences (Ingham-Broomfield, 2015). Using a qualitative research method, I gained a better understanding of the issues studied from the experiences of participants. Adopting a qualitative research methodology involves systematic textual data collection and interpretation from interviews or observations (Adhabi & Anozie, 2017; Khankeh et al., 2015).

Researchers use the quantitative method to examine the relationships between variables (Ma, 2015). Quantitative researchers use quantifications to understand the existence of a phenomenon (Bristowe et al., 2015). Researchers use the quantitative research method to examine quantities, support judgments, and test hypotheses (Bell et al., 2018). Contrary to the qualitative method that synthesizes human experiences, researchers use the quantitative method to examine the relationships among variables (Bell et al., 2018). The quantitative research method was not suitable for this study since I did not generate any theories or test hypotheses.

Researchers use a mixed research method to combine techniques from quantitative and qualitative research methods (Makrakis & Kostoulos-Makrakis, 2016). The mixed research method is more difficult to perform (Flick, 2017). Researchers use qualitative and quantitative to understand the phenomenon under study (Brannen, 2017). Mixed method researchers seek to gain complex comprehension of a phenomenon (Green et al., 2016). Hence, I did not select a mixed research method since I did not intend to include numeric data in this study. I used the qualitative research method to explore and interpret the experiences of participants. The qualitative method was more suitable for this study when compared to the quantitative and mixed methods

Research Design

The main reason for a research design is to guide the researcher in the process of data collection, analysis, and interpretation (Yin, 2017). Researchers choose a design that is appropriate to answer the research question (Khankeh et al., 2015). Qualitative

research designs include case study, phenomenological, case study, and ethnographic (Kruth, 2015).

Case study designs provide an in-depth understanding of a phenomenon and consist of rich contextual data use to study a real-life phenomenon (Yazan, 2015; Yin, 2017). A case study design enables a researcher to explore a single case or a small number of cases in detail by collecting information from various sources (Nardi, 2018). Researchers use case study designs to explore the conditions and trends of real-life situations where the people, place, and process affect those trends and conditions (Brannen, 2017). Researchers use the case study design to investigate and analyze a single or collective case in depth to understand the complexity of the case (Reinharz, 2017). Researchers use case study designs to collect and interpret data that address the *why and how* questions (McCusker & Gunaydin, 2015). Therefore, I used a qualitative multiple case study to explore strategies to mitigate the level of inherent risk in retail loan portfolios.

Researchers use a phenomenological design to explore the lived experiences of a group of people by describing *what* and *how* individuals experience a phenomenon (Bloomberg & Volpe, 2018). Using a phenomenological design, a researcher seeks to describe the perspective and interpretation of participants (Veal, 2017). A researcher can use the phenomenological design to uncover unique experiences from individuals and to gain access to a phenomenon (Chan & Walker, 2015). Researchers use phenomenological designs to capture the essence of a phenomenon by exploring how individuals make meaning of their experiences (Green & Thorogood, 2018). A phenomenological approach

was not suitable for this study because the essence is not to explore how individuals situate themselves in the world based on their lived experiences.

In an ethnographic study, researchers explore the shared pattern of a community or cultural group through their daily lives, behaviors, and activities (Marshall & Rossman, 2016). Using an ethnographic design, researchers learn about a particular group of people by immersing themselves in their lives and activities over time (Cincotta, 2015). Ethnographic researchers seek to capture the ongoing activities and culture of a community by engaging with the people and investigating the meaning they attach to their lives (Bailey & Bailey, 2017). I did not select the ethnographic design in this study because I was not exploring the culture of people or community over time. I explored the real-world viewpoints of bank managers and not the shared beliefs, feelings, or relationships of a cultural group.

Data saturation depends on the issues under review, the purpose of the study, participants, research method, and design (Viet-Thi et al., 2016). The sample should be large enough for the researcher to obtain redundancy of responses or saturation (Yin, 2017). The research methodology, research question, and design will dictate when and how a researcher attains data saturation (Viet-Thi et al., 2016). Exploration of the participants' responses until no new information emerged from the discussion will help me ensure data saturation. If a researcher fails to attain data saturation in a study, the quality and the content validity of the study may be hindered (Fusch & Ness, 2015). To attain data saturation, I interviewed bank managers until I failed to identify any new themes, categories, insights, or perspectives from coding.

Population and Sampling

The research population consisted of eight bank managers in four banks located in San Antonio, Texas, who have demonstrated success in managing the risk of their retail loan portfolios. Qualitative studies do not have a commonly putative sample size because the ideal sample is based on the intent of the study, research questions, and productivity of the data collected (Barton, 2017). Researchers select participants who can fulfill the purpose of the research topic and justify the rationale for the inclusion of participants for the study (Alvesson & Sköldberg, 2017; Robinson, 2014). The use of selection criteria is a thoughtful decision-making process that mitigates the risk of producing an inadequate and unmanageable volume of data (Peace et al., 2018). Participants selected should be willing and capable of providing relevant information that can respond to the research question (Mohammed et al., 2016).

For this qualitative case study, I interviewed a purposive sample of bank managers in San Antonio, Texas, who meet the eligibility criteria. Purposive sampling used in qualitative research is for the identification and selection of information-rich cases for the most effective use of limited resources (Fusch & Ness, 2015). Purposive sampling comprises identifying and selecting individuals or groups of individuals who are knowledgeable about or experienced (Palinkas et al., 2015).

Researchers have argued that a small sample size in a study produces a richer and deeper meaning of participants' experiences of the problem (Smith & Smith, 2018). However, the use of a small sample size might generate a risk of error in the analysis (Zhu et al., 2015). To determine the appropriate sample size, a qualitative researcher

considers the point of data saturation (Mohammed et al., 2016). To select participants for this study, I used purposive sampling as it enabled me to conduct a qualitative inquiry on information-rich cases that focus on the research questions. Researchers use sampling to maximize the efficiency and validity of a study (Palinkas et al., 2015). Researchers use a purposive sampling technique to select desired participants with specific criteria (Meutia & Ismail, 2017). Purposeful sampling is a nonrandom process used by researchers to represent categories of participants (Zhu et al., 2015). Researchers select sample size based on participants' knowledge and expertise necessary to contribute to the study (Palinkas et al., 2015). Researchers use their judgments in purposeful sampling to select participants according to the study criteria (Meutia & Ismail, 2017). The purposive sampling strategy enables researchers to select individuals with unique and valuable perspectives on the phenomenon in question (Zhu et al., 2015). Researchers use purposive sampling strategies to select potential participants with specific criteria for inclusion in the study (Green & Thorogood, 2018). Moonaghi et al. (2015) used purposeful sampling to select 12 participants with rich experiences in clinical education for inclusion in their study to explore nursing student's experiences of factors influencing clinical education. In this study, I used purposive sampling to select eight bank managers of financial institutions with experience in implementing successful strategies to mitigate the level of inherent risk in retail loan portfolios.

The bank managers that were select for the study possessed the knowledge necessary to understand the factors to mitigate the level of inherent risk in their retail loan portfolios. The size of the sample needs to be large enough for the researcher to obtain

redundancy of responses or saturation (Yin, 2017). Saturation levels can fluctuate based on elements as the homogenous level of sampled participants (Fusch & Ness, 2015). In a qualitative study, researchers used data saturation to determine when the data collected from the interviews became redundant (Christenson et al., 2016). The sample for this study consisted of eight bank managers from four different banks located in San Antonio, Texas, who have demonstrated success in managing the risk of their retail loan portfolios. Where there is no required number of participants, the researcher should be able to justify the inclusion of participants in a study (Cleary et al., 2014). Robinson (2014) suggested a qualitative case study sample size to be between three and 16 participants. In order to ensure data saturation for this study, I followed an interview protocol. Interviewing knowledgeable participants was helpful in yielding relevant information to ensure data saturation. Researchers could facilitate saturation by ensuring that participants selected for their study have relevant skills and knowledge to the research topic (Fusch & Ness, 2015)

Interview settings can increase or decrease the quality of the information provided by participants (Cairney & St Denny, 2015). Researchers have used face-to-face and telephonic approaches to conduct semistructured interviews (Yin, 2017). I conducted phone interviews with participants. Each interview lasted approximately 45-60 minutes. With the participants' consent, I used a Sony digital voice recorder to audio record the interviews. I took handwritten notes during the interview as a backup plan for aiding with accurate transcription. During interviews, the session took place in an environment that was comfortable for participants and at a location of their choice that was comfortable

and safe. Participants share more relevant information related to the topic of research when they feel comfortable and safe during a face-to-face interview process (Andrades et al., 2015). Distractions can interfere with the flow of an interview and affect participant concentration and the data collected (O'Connor, 2015). After the interviews, all identifiable research information, including consent forms, interview transcripts, and field notes were kept in an accessible secure safe at my home office. After the study publication, I will keep all participants' data for a minimum of 5 years, at which time the paper files will be destroyed by shredding and use a three-pass-overwrite process for electronic and digital data.

Ethical Research

The primary objective of informed consent is to enable an eligible participant to agree to participate in a study (Beskow et al., 2015). The informed consent form outlined a brief description of the study, policies, procedures, privacy, confidentiality, discomforts, and benefits of being in the study, and my contact information as the researcher. All the willing participants read and signed the informed consent form. Researchers must comply with the ethical standards and conform to the three basic ethical principles for research outlined in the Belmont Report, including respect for individuals, beneficence, and justice (U.S. Department of Health and Human Services, 2016).

Each participant received a unique number to maintain confidentiality, such as A1, B1. I conformed to the requirements of Walden University's IRB guidelines to safeguard the well-being of participants. In a situation where the participant chooses to

withdraw from the study, I provided him/her with the interview notes and the audio recording to destroy. Researchers must respect an individual's decision to withdraw from a study (LeVine, 2018). An individual's participation in research is voluntary, and the right to withdraw is a central tenet of research ethics (LaRossa & Bennett, 2018). I informed participants that they are free to withdraw at any point during the study without consequences. The invitation to participate included the process for participants to withdraw from the study. I informed participants to contact me by phone or email if they decided to withdraw from the study. No participant withdrew or declined to participate in the study.

The participants of this study did not receive any compensation for their participation. Researchers can choose not to provide incentives to interviewees during the data collection process (Steinmeier, 2016). I ensured participants understood that their participation in the study was voluntary and would receive no incentives or compensation to take part in the research. However, I emailed the participants a summary of the results.

I provided the participants with information about the member checking procedures that researchers use to ensure the reliability and validity of the data. Member checking involves the researcher giving his/her interpretation of the participants' answers to the interview questions back to the participants for validation purposes (Fusch & Ness, 2017). With member checking, the researcher interprets what the participant shared and then shares the interpretation with the participant for validation (Lub, 2015). The member checking follow-up interview can help the researcher reach data saturation through obtaining in-depth information and enhance academic rigor (Thomas, 2017). A copy of

the summarized interview was provided to the participants by email for review before analyzing the data. Member checking is an essential way that qualitative researchers can take to ensure the credibility of a study's findings (Fusch & Ness, 2017).

Researchers can convert the real identity of a research participant into fake identities to protect the confidentiality of the participant (Bromley et al., 2015; Yin, 2017). During the study, I kept the names of participants confidential as required by the IRB. I assigned numbers and initials to participants to maintain their privacy and confidentiality. Protecting the confidentiality of participants was paramount at all times during the gathering, storage, and analysis of data (Yin, 2017). I assigned numbers and initials to participants to maintain their privacy and confidentiality. Protecting the confidentiality of participants is paramount at all times during the gathering, storage, and analysis of data (Yin, 2017). I labeled participants as A1, A2, B1, B2, C1, C2, D1, and D2. Researchers should protect the rights of participants and respect their privacy during the research process (Thomas, 2017). Thomas (2017) noted that all data, including (a) the participant alphanumeric code sheet, (b) voice recordings of interviews, and (c) digital and electronic files, will remain in a secured locked location for 5 years after the completion of this study. After the 5-year period, I will destroy all data by shredding and use a three-pass-overwrite process for electronic and digital data. The IRB approval number for this study is 04-10-20 0508984.

Data Collection Instruments

The researcher was the primary data gathering instrument in this case study. Therefore, I served as the primary instrument to collect data. A case study design

encompasses the use of multiple sources of data to explore case specifics (McKenney & Reeves, 2018). There are six potential sources of data, including documentation, archival records, interviews, direct observation, participant-observation, and physical artifacts (Yin, 2017). I employed semistructured interviews, reviewed risk policy documents, procedures, and Form 10K to explore the strategies to mitigate the level of inherent risk in their retail loan portfolios.

Qualitative researchers collect data by conducting face-to-face interviews using journals, voice recorders and observing participants' behavior during the interview process (Voelkel & Henehan, 2016). Semistructured interviews facilitate the flexibility of qualitative data collection while at the same time offering more standardization than in naturalistic or unstructured interviews (Green et al., 2016). Semistructured interviews are typically exploratory, while structured interviews are more likely to be quantitative and confirmatory (Green et al., 2016).

Researchers collect different types of data depending on the research method. Qualitative researchers collect data through semistructured interviews (Stevens, 2017). I collected data by conducting phone interviews with participants and reviewed risk policy documents, procedures, and Form 10K. The interviews include open-ended interviewed questions that encourage the exchange of follow-up questions to understand interview questions and responses better. Qualitative researchers use semistructured interviews to have in-depth conversations with interviewees and guided by the participant's perceptions, opinions, and experiences (Cridland et al., 2014). Researchers semistructured interviews with follow-up questions and informal conversational

interviews as the primary form of data collection in qualitative research (Hedlund et al., 2015).

Researchers using semistructured interviews have the flexibility to focus on issues that are related to the central research purpose and participant's experiences (Cridland et al., 2014). I conducted phone semistructured interviews using open-ended questions to explore strategies bank managers use to mitigate the level of inherent risk in retail loan portfolios. With permission from participants, I recorded the interviews to ensure I capture and retain details of information for further analysis. Each interview lasted between 45 to 60 minutes. In-depth individual semistructured interviews can elicit rich information about participant's experiences and may lead to spontaneity, flexibility, and responsiveness to individuals (Brannen, 2017).

The use of triangulation increases the credibility of research (Ashatu, 2015). Researchers use triangulation during research to develop a comprehensive understanding of a phenomenon by collecting richer and more comprehensive data (Wilson et al., 2018; Yin, 2017). Denzin (1978) noted methodological triangulation is used to check the consistency of findings generated by different data collection methods, thus increasing study validity. Kern (2018) confirmed triangulation using multiple methods of data collection, including data from interviews, reflexive journal notes, and scientific literature. I triangulated multiple methods of data collection, including interviews, risk policy documents, procedures, and Form 10K. I used methodological triangulation to check for consistency of findings from a variety of data collection methods.

Qualitative researchers use member checking as a technique to increase the accuracy of the findings (Marshall & Rossman, 2016). In this study, I used member checking after conducting the interviews to increase the reliability and validity of the data collection process and to enhance the accuracy of the findings. In member checking, a researcher asks selected participants to review the researcher's interpretation of what was said during the interview (Fusch & Ness, 2017). I conducted member checking by summarizing my interpretation of each interview and asking participants to review my summary. I emailed my summary to participants and asked each to review, clarify any issues, and correct incomplete and incorrect information. I recorded pertinent information from risk policy documents, procedures, and Form 10K into field notes. I uploaded all the notes in NVivo to help identify patterns and themes.

The perspectives of qualitative research include credibility and trustworthiness, given that the researcher is the primary data collection instrument (Kern, 2018). Semistructured interviews are guided conversations in an effort to produce consistent participant responses (Benia et al., 2015). To gain access to reliable information and reduce bias, researchers use reliable academic journals and databases (De Ceunynck et al., 2017; Yin, 2017). Using an interview protocol provides a researcher with a systematic approach designed to increase the amount of relevant information that can be obtained from the interviewee (Benia et al., 2015). By using an interview protocol (see Appendix A) structured along the lines of strategies to mitigate the level of inherent risk in loan portfolios, I standardized the interviews to minimize bias and enhanced information accuracy.

Data Collection Technique

Researchers apply data collection techniques by performing related activities to gather relevant information during the data collection phase (Jarkas & Horner, 2015). Qualitative researchers collect data by conducting in-person interviews and reviewing records related to the phenomenon of interest (Noble & Smith, 2015). The data collection technique for this study included conducting phone semistructured interviews with participants, review risk policy documents, procedures, and Form 10K. The advantages of semistructured phone interviews are (a) the researcher can clarify questions that the participants may not understand, (b) less costly to the researcher, and (c) saves time for the participants and researcher (Comi et al., 2014). Another advantage of semistructured phone interviews has the option to schedule or, in some cases, reschedule interviews with limited disruptions with the participants (Agran et al., 2016). A disadvantage of semistructured phone interviews is the difficulty in connecting and building rapport with the participants (Agran et al., 2016). Another disadvantage of a semistructured phone interview is that the participant could unilaterally terminate the call without any warning by simply hanging up the phone (Topić, 2020).

Researchers use semistructured interviews to encourage follow-up questions and responses to ensure the information gathered is accurate (Munn et al., 2016). Researchers conduct semistructured interviews to investigate participant's views and perceptions on the central research topic (Brannen, 2017). I conducted semistructured interviews using open-ended questions to explore strategies to mitigate the high level of inherent risk in the retail loan portfolio. Before conducting interviews, I requested permission from

participants to audio record the interviews. All participants who met the established criteria and agreed to participate in the study reviewed and sign a consent form. The informed consent form includes information relating to the purpose of the study, a statement that the researcher will not compromise the participant's identity, and that participation in the study is voluntary (Lieberman & Lohmander, 2016).

Semistructured interviews provide researchers with the flexibility to focus on issues that are meaningful to participants by minimizing researcher control over participant's expression of their experiences (Cridland et al., 2014). Researchers use semistructured interviews to stimulate familiarity with participants and gain a unique understanding of the phenomenon studied (Cridland et al., 2014). Qualitative researchers can obtain data for a study using semistructured interview forms consisting of open-ended questions (Yurdakul, 2015). Researchers use open-ended questions as a guide to get information and to encourage participants to elaborate on specific topics and perspectives.

Researchers use member checking as a validation technique to explore the credibility of results (Harvey, 2015; Lub, 2015). Member checking is a strategy researchers use to return data to participants to check for accuracy and resonance with their experiences (Harvey, 2015). The member checking process encompasses a range of activities, including (a) returning the summarized interview transcript to participants, (b) a member check interview using the interview transcript data or interpreted data, or (c) returning analyzed synthesized data (Harvey, 2015; Lub, 2015).

Member checking is also the process in which participants can correct inaccuracies and interpretations (Comi et al., 2014; Harvey, 2015). Through member checking, I gained more clarity of data the participants provided. I used member checking to confirm data dependability by comparing data captured during and after the interviews. I received feedback and validation from each participant about the data collected in the follow-up interviews.

Data Organization Technique

A researcher brings structure and order to the management and organization of data from field notes, interviews, memos, and documents (Malagon-Maldonado, 2016). Data organization refers to the separation of data into controllable pieces that researchers can analyze for perceptiveness related to research questions (Fusch & Ness, 2017). Qualitative researchers use data collection techniques to reduce the risk of misinterpreting data collected from participants (Yin, 2017). Researchers should use an easy retrieval system to organize data for analysis and to adapt pre-defined categories during the analysis phase if necessary (Cox, 2018).

According to Alaba et al. (2017), researchers use an organizational process to protect the privacy of participants. Procedures that maintain data accuracy and provide confidentiality are crucial to data organization (Romanou, 2018). I identified and organized the assigned alphanumeric codes from the electronic and hard files related to each participant and organization. The first digit identified the organization, and the number will identify the participants within the organization. During the interviews, the

organizations will be labeled A, B, C, and D and the participants assigned the numbers 1, 2, or 3. The numeric code will be written as A1, A2, B1, B2, C1, C2, D1, and D2. etc.

Procedures that maintain data accuracy but provide for confidentiality are crucial to data organization (Keys, 2014). I remained the only person with information to decipher the alphanumeric codes. I identified and organized the assigned alphanumeric codes from the electronic and hard copy files related to each participant. Electronic and hard copies will remain locked in a secure location for 5-years in my home office following the conclusion of the study. A researcher should destroy data, which includes any electronic, digital, audio, and hard-copy data, by shredding and conducting a three-pass overwrite for electronic and digital data (White et al., 2017). As the only individual who will have access to this secure location, after the 5-year period, I will personally destroy all data. All the paper files will be shredding and use a three-pass-overwrite process for electronic and digital data.

Data Analysis

Data analysis is a process used by researchers to arrange, assess, and interpret all data collected during the gathering process (Yin, 2017). Qualitative data analysis stages encompass the preparation, collection, organization, and transcribing of the information collected (Cridland et al., 2014). Percy et al. (2015) and Saldana (2009) suggested steps for data analysis and theme identification summarized as follows (a) carefully read and examine each transcript, (b) highlight to identify the relevant sections to the research questions, (c) synthesize relevant phrases and words (codes) to form the common concepts from each transcript, (d) review the codes and common concepts across

transcripts, (e) create a matrix of the significant common concepts, (f) compare and contrast the concepts from each transcript, (g) analyze and interpret the significant common concepts to form themes and subthemes, and (h) categorize the themes of the concept to support the research question. Researchers use methodological triangulation when collecting data from various sources such as interviews, questionnaires, surveys, and documents (Marshall & Rossman, 2016). For this qualitative study, I used methodological triangulation. I gathered information from phone interviews, field notes, annual reports, risk policy documents, procedures, and Form-10K. Based on the accumulated data, I identified the emergent themes.

The data coding consists of keywords based on standard terms that emerged from analyzing transcripts. The collection and analysis of data should coincide, as one part cannot be strictly separated from the other (Cox, 2018). Qualitative researchers should analyze data systematically by providing a clear and detailed explanation of the data analysis process (Keith, 2017). The process of data analysis starts immediately after a researcher conducts the first interview and continues until data saturation is attained (Cox, 2018). Researchers should have a strategy to capture the rich insights of qualitative interview data and make sense of the data that is relevant to the research question (Yin, 2017). I analyzed the data collected from interviews by reading and rereading the data collected while reflecting on what I read to grasp the general themes from the transcripts. In the data analysis process, I transcribed every interview along with field written notes in Microsoft Word document and uploaded them to NVivo. I read through the transcripts and field written notes while identifying codes and linking significant segments to

appropriate themes. To facilitate member checking, I requested participants to correct inaccuracies and challenge incorrect interpretations. After collecting field notes on annual reports, risk policy documents, procedures, and Form 10K, I transcribed interviews and field written notes. Publicly available information included yearly Form 10K. I applied codes to the texts as concepts became apparent. Next, I combined related concepts into categories and themes.

Qualitative researchers can combine related concepts into categories and group them into themes to summarize key ideas and experiences discussed by participants (Riera et al., 2015). Qualitative researchers can derive meaning from data collected by interpreting data (Lynch et al., 2016). The use of member checking ensured the accuracy and validity of the research findings. Lastly, I wrote-up the results of this study.

Researchers may use computer applications to analyze data (Sotiriadou et al., 2016). Qualitative analysis software facilitates data organization (Riera et al., 2015). To facilitate data analysis, I used a qualitative computer software program. The data analysis software supports researchers in systematically coding and organizing data and managing the development of categories and themes (De Massis & Kotlar, 2014; Sotiriadou et al., 2016). Qualitative data analysis software includes NVivo, HyperRESEARCH, ATLAS.ti, and Leximancer (Yin, 2017). The NVivo software is user-friendly and supports researchers in collecting, organizing, and analyzing different types of data for patterns and themes (Blaney et al., 2016; Castleberry, 2016). Researchers use the NVivo software to apply text search functions that save time in analyzing data (Blaney et al., 2016;

Brennan & Bakken, 2015). I used NVivo in this study to organize and manage the qualitative material to help to identify themes.

Researchers may use the process of thematic analysis to describe patterns of meaning combined into themes (Pascoal et al., 2016). Researchers use the thematic analysis method to analyze literature and identify important and recurrent themes (Teruel et al., 2016). By reviewing and comparing interview transcripts, I identified key common themes. I triangulated the common themes identified from the transcripts by reviewing company documents supporting the themes. One popular strategy for qualitative data analysis involves themes identification from repeated words, phrases, signs, or symbols (Hennink & Kaiser, 2020). Researchers use the thematic analytic process to read the data several times and to identify and organize emerging themes related to the research question (Rohlfing & Sonnenberg, 2016). Therefore, I used thematic analysis to detect and organize emerging themes.

Identifying critical themes from research that are framed with a conceptual framework is vital to qualitative research (Cridland et al., 2014). For example, Beeton et al. (2019) linked case study results to a conceptual framework. Data analysis involves aligning data with prior research, including research related to the conceptual framework (Beeton et al., 2019; Pascoal et al., 2016). In a qualitative study, researchers seek alignment between evidence and conceptual framework used in their research (Sotiriadou et al., 2016). In conducting a literature review, researchers can establish a conceptual basis for supporting research evidence. I linked the research data, literature, and the ERM framework to support the study in my analysis. While analyzing the collected data, I

continually referred to the ERM framework, prior studies, and research published since completing my proposal.

Reliability and Validity

Reliability and validity are the most relevant standards of research and can be used to establish the quality of findings (Gheondea-Eladi, 2017; Yin, 2017). The validity and reliability of a study ensure that researchers achieve the highest quality of research and peers perceive the findings as trustworthy (Kern, 2018). In assessing the reliability and validity of a qualitative study, a researcher can use the following criteria (a) dependability, (b) credibility, and (c) confirmability (Kaczynski et al., 2016; Yin, 2017). Researchers can use member checking to enhance the validity and reliability of study findings (Thomas, 2017). Member checking is defined as a quality control process where researchers seek to improve the validity, accuracy, and credibility of the recorded information during a research interview (Harper & Cole, 2017). I used member checking and methodological triangulation to establish reliability, credibility, and validity in this study.

Reliability

Qualitative researchers incorporate strategies to ensure consistency of the analytical procedures and personal and research biases that may influence the study findings (Noble & Smith, 2015). Dependability is the extent that the study could be repeated by other researchers and that the findings would be consistent (Munn et al., 2016). A qualitative researcher can use an inquiry audit in order to establish dependability and or an outside person to review and examine the research process and

the data analysis in order to ensure that the findings are consistent and could be repeated (Connelly, 2016).

To increase the confidence in the findings of a qualitative study, researchers can establish dependability if the research process is logical, traceable, and documented clearly (Munn et al., 2016). The concept of dependability aligns with the quality of the study (Munn et al., 2016). I used member checking in this study to enhance the quality of the findings. To improve the quality of findings, I employed member checking by sending each participant an email to validate my interpretation of the data collected during interviews.

Theron (2015) discussed the use of member checking by researchers to ascertain that they accurately exhibit what the participants have conveyed to enhance the reliability of the findings. The validity and reliability of this study increased by using the process of triangulation to develop a comprehensive understanding of the study phenomenon. The process of methodological triangulation enables researchers to use multiple methods or data sources to converge information (Lee, 2018). Therefore, I utilized multiple data sources to collect information to enhance the reliability and validity of the study findings as multiple data collection techniques phone interviews, annual reports, risk policy documents, procedures to collect data.

Validity

Gheondea-Eladi (2017) referred to reliability and validity as the most significant standards for a study. Validity refers to how accurate the findings of a study reflect the data (Noble & Smith, 2015). A researcher can establish the validity of a research finding

by maintaining reliability (Aravamudhan & Krishnaveni, 2016). To establish the validity of a study, a researcher can ensure credibility, transferability, and confirmability (Connelly, 2016; Yin, 2017).

Credibility

Credibility is how confident the qualitative researcher is in the truth of the research study's findings (Connelly, 2016). By providing summarized participants' interview notes and receiving feedback, researchers can add credibility and validity to study findings (Thomas, 2017). Since the participants were the only ones who could legitimately judge credibility, it was incumbent that they are able to thoroughly inspect their responses and enhance or correct them as needed.

Qualitative researchers can use triangulation to show the research study's findings are credible. Researchers use member checking to enhance the validity of findings (Thomas, 2017). Connelly (2016) proposed member checking and reflective journaling as techniques a researcher can use to establish credibility in a finding. The use of member checking is appropriate to ensure the credibility of a study (Yin, 2017). A researcher can use member checking to gain additional insight into a phenomenon of study (Kornbluh, 2015). To enhance the credibility of this study, I summarized participants' interviews and sent my summarized notes by email to participants to validate the accuracy of the interpretation of the interviews and adjust the themes based on participant perspectives and feedback.

Transferability

Transferability refers to the extent to which a researcher can transfer the findings of a study to another context, place, time, people, and setting (Gheondea-Eladi, 2017). Transferability is how the qualitative researcher demonstrates that the research study's findings are applicable to other contexts (Thomas, 2017). A researcher can facilitate transferability by providing a detailed and precise description of the inquiry and study participants (Anney, 2015). Readers and researchers use transferability to determine how well a research context fits other contexts (Gheondea-Eladi, 2017). Transferability is established by keeping accurate records of the participant's data and the use of credible and reliable peer-reviewed sources to ensure the research context relates to the overall scope of the study (Anney, 2015). In this case, "other contexts" can mean similar situations, similar populations, and similar phenomena. Qualitative researchers can use thick description to show that the research study's findings can be applied to other contexts, circumstances, and situations (Gheondea-Eladi, 2017). In a qualitative study, transferability is achieved through thick descriptions supported with purposeful sampling to ensure representative sampling and data saturation (Thomas, 2017). To increase transferability for this study, I provided a valuable, rich, and exhaustive explanation of research ethics, data collection, participant criteria, and sampling techniques, which might be relevant to future qualitative researchers. I included a substantive review of academic literature, the research phenomenon, and my data analysis to ensure comparison to other possible contexts to which readers and future researchers may contemplate a transfer.

Confirmability

Confirmability is the degree of neutrality in the research study's findings (Elo et al., 2016). Kaczynski et al. (2016) referred to confirmability as the neutrality of findings in a study and not the researcher's biases or perspectives. This involves making sure that researcher bias does not skew the interpretation of what the research participants said to fit a specific narrative. To establish confirmability, qualitative researchers can provide an audit trail, which highlights every step of data analysis that was made in order to provide a rationale for the decisions made (Anney, 2015; Connelly, 2016). This helped to establish if the research study's findings accurately portray participant responses. A researcher can use multiple data collection methods to explore a phenomenon in methodological triangulation (Fusch & Ness, 2017). Thus, I used methodological triangulation to ensure confirmability.

Data Saturation

Data saturation occurs when the researcher fails to identify any new (a) themes, (b) categories, (c) insights, or (d) perspectives for coding. The data saturation process involves the identification of (a) themes, (b) thematic definitions, (c) categories, and (d) coding based on the participants' responses (Fusch & Ness, 2015). Data saturation enhances the quality of a study and the validity of the content (Barton, 2017). Where the sample size is small, additional interviews might be necessary to ensure that the researcher achieves data saturation (Marshall & Rossman, 2016). Researchers can focus on data saturation to enhance the validity of a study (Hancock et al., 2016). For this study, I achieved data saturation by asking participants to clarify their responses during

interviews and continued to interview until the information in the transcripts became redundant.

Transition and Summary

Section 2 provided a detailed description of the methodologies and strategies of the study. I started Section 2 with a restatement of the purpose statement as presented in Section 1. Included in Section 2 is the role of the researcher, data collection techniques, and data analysis. I also described the research method, research design, and population, and sampling. Also, in Section 2, I outlined how I established reliability and validity for this study. In Section 3, I present the findings and the application of professional practice. I discuss the implications for social change, recommendations for action, further research, reflections on the research process, and a conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore strategies bank managers use to mitigate the level of inherent risk in their retail loan portfolios. The targeted population included eight bank managers from four different banks located in San Antonio, Texas, who had implemented successful strategies in managing the risk of their retail loan portfolios. Through an analysis of data collected through interviews, review of annual reports, risk policy documents, procedures, and Form 10-K, four themes emerged.

Presentation of the Findings

The research question for this study is: What strategies do some bank managers use to mitigate the level of inherent risk in their retail loan portfolios? To answer this question, I interviewed eight bank managers over the phone from four different banks. To protect the confidentiality of the participants, I labeled participants alphanumerically as A1, A2, B1, B2, C1, C2, D1, and D2. The letter identified the organization, and the number identified the participants within the organization.

Each semistructured interview consisted of seven interview questions. Each interview lasted 40 to 50 minutes. I gathered information from phone interviews, annual reports, risk policy documents, procedures, and Form–10K. I analyzed the data collected from interviews by reading and rereading the data collected while reflecting on what I read to grasp the general themes from the transcripts. In the data analysis process, I transcribed every interview along with field notes in a Microsoft Word document and

uploaded them to NVivo. I read through the transcripts and field notes while identifying codes and linking significant segments to appropriate themes. Through member checking, I requested that participants correct inaccuracies and challenge incorrect interpretations.

After collecting field notes on annual reports, risk policy documents, procedures, and Form-10k, I applied codes to the texts as preliminary themes emerged. I organized the narrative segments from the documentation based on these preliminary themes. Next, I combined related concepts into categories and themes. I used NVivo to help organize, sort, classify, and analyze non-numerical or unstructured data. Four themes emerged through data analysis: (a) know your customer, (b) business knowledge and continuous improvement, (c) enhance credit analytics, and (d) the use of technology.

Theme 1: Know Your Customer

All participants interviewed indicated that knowing your customer is an integral part of the credit risk management process to mitigate the level of inherent risk in retail loan portfolios. According to Mittal et al. (2015), financial institutions can sustain growth and profitability by knowing their customers and delivering superior customer service in an exceptional manner that surpasses customer needs, leads to customer satisfaction, and enhances competitiveness. One of the most valuable business assets is consumer data (Chen & Fong, 2015). Participants acknowledged the importance of knowing the different segments of customers that request retail loans to manage better and mitigate the level of inherent risk in their loan portfolios. According to Li et al. (2018), firms can introduce a greater variety of products to attract new consumers with heterogeneous

tastes and induce consumers to switch from competitors while maintaining an effective control environment.

Participants noted that bank managers should work on mandatory verification of new and existing customers' credentials to prevent and mitigate loan default and money laundering. A1, A2, and E2 emphasized the importance of knowing your customers to understand better the kind of financial advice, products, and services they need. Participant A1 stated "Know your customer is an integral part of the risk management process and forms the basis for all subsequent steps in the lending process." Participant A2 stated "It is essential to collect pertinent, accurate, and timely information to establish a stable client relationship." Participant E2 suggested "without a good understanding of our customer base, it will be difficult to determine their needs."

During the interview, A2 gave me a walkthrough of the analytical tool used to gather personal information on their customers to make efficient and effective loan decisions better. The participant works with credit score companies to gather relevant information they use to upload to the analytical tool to run algorithms and risk profiles of customers. Based on the risk level determined by the analytical tool, management can decide to further review loan applications or outsource the application to a third party.

Participants also emphasized that knowing the customers better positions loan managers to understand their needs and the type of products most suitable to them. Participant A1 stated,

> I know most customers are shopping for loans with a low interest rate to use them to pay off other existing debt or to fund a large purchase. Customers really want a

> better experience and more control over how they manage their finances, including debt.

Similarly, E1 responded “my job gets easier when I create a personal rapport with the customers.”

Banks can differentiate from other competitors by competing on having the best services and quality. Banks can achieve effective control environments by investing in products or services that offer unique qualities desirable to customers (Bogodistov & Wohlgemuth, 2017). A1, A2, B1, B2, and C1 admitted that they encourage bank employees to provide outstanding customer service and dig deep to know their customers to address their individual needs. Participant A2 stated “I encourage my employees to work diligently to know their customers and their needs.” Participant B1 responded “I work to align our customers' profile to their needs and verify for any anomalies by running a stress test on their profiles.” Participant B2 suggested that understanding customers' financial habits and health are very critical to managing risk. Participant C1 stated “Incredible customer service is key to their success.” Participant A1 responded “the customer is king to the success and failure of a bank.”

This finding supports the ERM framework that knowing your customers is vital to banks' control environments and the services and products offered. Malelak and Pryscillia (2020) stated ERM helps enable the banks to successfully grow the business and customer base in alignment with their mission. The focus on ERM helps drive value creation by enabling management to respond into prompt, efficient, and effective manner

to future events that create uncertainty and represent significant threats or opportunities (Ratri & Pangeran, 2020). No field note was used to arrive at this theme.

Theme 2: Business Knowledge and Continuous Improvement

The importance of having business knowledge in the bank industry was prominent in interviews with all the participants. Five participants expressed the importance of understanding the industry, including customers, customer needs, and the products and services provided. B2 stated that “knowing the business and the products offered is critical to the success or failure of the bank. I work continuously to improve the knowledge of my team and emphasize continuous knowledge improvement.” Participants’ responses supported the findings of Zhao (2016), who noted that in the current knowledge-based economy, intangible resources of knowledge, organizational learning, market image, and organizational culture are some of the most valuable and competitive resources. Participants highlighted that bank managers and senior executives could use the knowledge gained from prior loan review experience to create value and effectively manage risk. C1 stated “Based on the risk analysis response from analyzing an application, bank managers can better analyze systemic risk based on prior experience.” Otubanjo (2018) suggested that banks can develop and implement service strategies by providing adequate training to staff to ensure consistency in the delivery systems and enhance customer service.

Lonial and Carter (2015) suggested that robust risk assessment methodologies add value to a bank and are part of the organization’s base of knowledge and information. Managers should enable access and sharing of information across departments by

establishing relationships and obtaining a shared understanding without delay and distortion (Dubey et al., 2018). Participants indicated that a well-written and descriptive credit policy is the cornerstone of sound learning. A1 stated “It is essential to maintain and continuously update credit policies to adhere and learn from the process.”

Participants acknowledged that bank managers should also clearly articulate the vision, values, and beliefs that guide that institution’s lending activities. C2 stated “it is critical for bank managers to emphasize their vision, values, and objectives to guide their lending practices.” Gupta (2016) suggested that firms can promote and reward employees that provide exceptional quality services to customers. A good leader should know how to use lending techniques and maintain a positive attitude in a competitive industry (Barley, 2015; Chen & Fong, 2015). Participants discussed how being a good role model and leading by example is essential to motivate employees to work harder and treat customers with care and respect. B1stated that “a strong risk management culture can only be created when the board of directors is not afraid to challenge management and is involved in facilitating this culture throughout the organization, without assuming responsibility for running the bank.” A further review of participating annual report revealed policy statements and actions which support the case for business knowledge and continuous improvement. Bank managers continued to emphasize the need for updated policies and continuous improvements in the 10Ks and policy documents. On reviewing management discussion and analysis of financial condition and results of operations in the entities 10K, I identified them stress the importance of robust policies and continuous improvements.

The theme of business knowledge and continuous improvement aligns with the ERM framework. In the context of the ERM framework, continuous improvements could reduce the inherent risk in retail loan portfolios (Berry-Stölzle & Xu, 2018). Delivering consistency between leadership, employees, and alignments with other processes is essential for banks in developing risk culture (Mohtashami & Ghiasvand, 2020). Relationships between management and employees with coordination among other departments on ERM implementation can develop banks' risk-averse environments (Orabueze et al., 2020). The internal environment sets the foundation for how risk is viewed (Tomas et al., 2017). In a work environment, the ERM framework could include educational training and continuous improvement for employees to understand the business and improve its business processes (Gupta, 2016).

Theme 3: Enhance Credit Analytics

Six participants recognized that establishing a banking relationship and granting loans is associated with various advantages and risks. Credit risk management solutions required the ability to secure, store, categorize, and search data based on various criteria. Participants discussed the need for any database to be updated in real time to avoid potential outdated information and be keyword optimized to ensure the easy location of information. D1 stated "the accessibility with real-time information makes it easy to decide on an application." Participants acknowledge that a full and comprehensive risk assessment scorecard should quickly identify strengths and weaknesses associated with a loan. B2 stated,

> Robust stress-testing capabilities and model management that spans the entire modeling lifecycle are key to ensuring accurate risk assessment. We use data analysis to come up with the best available situation on each given loan application. We all work with external vendors to run those analyses based on the information they have collected on a customer. As the manager, I require data analysis presented in an intuitive, clean, and clearly visualized way. Stripping away irrelevant data, analysts and IT professionals can help zero in on the most patent information for the decision-making process on loans.

B1 revealed that it is common to find different data definitions among business, IT, and risk units. Users do not always follow data set naming conventions, so it is hard to find the right data set, understand its purpose, or be sure which is the most recent one. Data updates may be sporadic, and data quality might be below par. In addition, D2 indicated,

> A useful credit risk model is very vital to manage loan portfolios successfully. In this digital age, we have been conditioned to produce speed and precise business results using data analytics and big data. Many banks still use highly manual processes for loan underwriting, subject to human bias and inconsistency that lead to poor decisions and underperforming loans. Banks that make more accurate credit decisions models will maximize revenue and minimize default.

I also reviewed the 10K report for companies A, B, C, and D. Based on my review, both companies' charge-off late payments for consumer loans were relatively low. During my interview, A1, B2, and C1 gave walkthroughs of their respective

analytical software works. Participants described how they get personal credit information from credit report companies based on a prescribed criterion. This information is then entered into a software tool that analyzes individual profiles as low, medium, or high risk.

Dubey et al. (2018) suggested that firms operating in competitive environments should have the ability to respond quickly to external changes and share information effectively using technology. The participants' responses indicated the importance of enhanced credit analysis and big data to create and build models on customer profiles to predict their preferences, risk level, and tolerance. D2 stated that: "enhanced credit analytics and the use of third-party company make the loan review process fast, efficient and effective."

In the context of the ERM framework, enhance credit analytics such as the ability to secure, store, categorize, and search data based on a variety of criteria could mitigate the risk of granting loans with a higher risk of default. ERM is not a process to eliminate risk or to enforce risk limits, instead encourage banks to take a broad look at all the risk factors, understanding the interrelationships among those factors, define an acceptable level of risk, and continuous monitoring areas to ensure that the risk defined threshold is achieved (Tittle, 2018). In other to remain relevant and financially successful in the face of a growing competitive banking environment, enhance systems and continuous modification in credit analytics are vital to combat risk and uncertainty in banking activities (Naseem et al., 2020). Jean-Jules and Vicente (2020) stated banks that embrace

ERM and enhanced credit analytics today would be positioned to respond quickly to unforeseen circumstances in the future.

Theme 4: The Use of Technology

Participants acknowledged that leveraging technology and the internet is essential to the success of implementing and mitigating risks in retail loan portfolios. Participants indicated that by leveraging modern technology, banks have made daily interactions with their customers frictionless and effortless, from monitoring and evaluating customers' accounts to gaining access to valuable information. Five participants supported this theme. C2 stated "with the advent of advanced technology, interaction with clients and understanding their needs have been effortless. We can easily monitor customers' accounts to understand their risk profiles and other valuable information. All participants disclosed that cloud integration provides immediate access to relevant data sources for credit, employment, identity, and income verification without the burden of costly, protracted programming. A1 stated "cloud computing technology is disruptive and a gamechanger to the banking sector." B2 noted "our bank is fast transitioning to the cloud space for data management and storage." Cloud integration reduces the need for manual verification and results in faster application processing (Bilgihan & Wang, 2016). Tileaga et al. (2016) suggested that firms can gain market share, control, and competitiveness by using information technology to market products to internet users and effectively manage risk (Tileaga et al., 2016). Firms can use technology to enhance their service quality and deliver superior services that improve performance and increase profitability (Pantano et al., 2018). All participants disclosed that cloud integration provides immediate access to

relevant data sources for credit, employment, identity, and income verification without the burden of costly, protracted programming. A1 stated "cloud computing technology is disruptive and a gamechanger to the banking sector." B2 noted "our bank is fast transitioning to the cloud space for data." C1 stated "automation and technology accelerate lending processes and facilitates consistency in decisions." C2 noted "automated decision rules enable lenders to eliminate manual steps, replacing them with data-driven processes." D2 stated "cloud computing and AWS services make processing time more efficient and effective."

Participants noted that technology and software updates on the cloud are fast and frequent, allowing lenders to immediately take advantage of bug fixes and functional improvements made in response to customer requests. Participants acknowledged that they use technology to strengthen the enterprise and streamline the loan process to mitigate risk. A2 stated "technological advancement plays an important role for the entire enterprise and helps in streamlining the loan process," Technology and application present new opportunities for banks to increase digital engagement through popular emerging channels (Kulathunga et al., 2020). Customers' access to digital tools enables community banks to keep up with big banks and rivals (Anton & Nucu, 2020). Dubey et al. (2018) suggested that firms operating in control environments should have the ability to respond quickly to external changes and share information effectively using technology.

Participants noted that by digitizing and automating actions within the credit process, the solution speeds up the time it takes to process loan applications more

efficiently and effectively. Technology improves data integrity through the integration of external and internal systems and data sources. A1 stated “Loan officers and underwriters use standardized analytical software to speed up the verification and approval process with the help of data integration.”

Employing technology improves efficiency, manages credit risk, and gains a competitive advantage. Technology helps streamline the credit analysis process, share credit risk information efficiently among departments, and deploy technology-based learning. During the walkthrough, A1 explained to me a test on how the analytical tool works. A1 stated “we depend on third party credit companies’ information on loan applicants for review and analysis.” In the ERM framework, the use of technology plays a significant role in mitigating inherent risk in loan portfolios. Brustbauer (2016) noted that enterprise risk could include various factors with potential impact on banks' activities, processes, and resources. B2 mentioned that a robust information technology infrastructure could be very beneficial in the risk mitigation process. B2 views can be associated with the ERM framework because a successful information technology platform identifies, captures, and communicates in a timeframe and form that enables users to make informed decisions. Effective communication occurs when information flows horizontally and vertically across the entity (COSO, 2013; Rubino et al., 2017).

This finding supports the ERM framework that new technology use and digital information revolutionized the global business environment. Organizations use sophisticated technologies to create a collaborative work atmosphere by providing workers with the ability to use technology to share information fast to manage risk and

address uncertainties (Kulathunga et al., 2020). The ERM framework outlines how managers can have greater confidence in addressing many critical 21st-century business challenges as they navigate evolving markets, segments, rapid technological change, and heightened regulatory and compliance focus (Lam, 2016). The ERM framework helps drive value creation by enabling management to use technology to respond in a prompt, efficient, and effective manner to future events that create uncertainty and represent significant threats or opportunities (Anton & Nucu, 2020).

Applications to Professional Practice

The findings from this study are relevant to improved business practice. Participants provided additional information on bank managers and leaders' strategies to mitigate inherent risk in retail loan portfolios. First, I found bank managers may acquire new perspectives and improved understanding to mitigate loan default. Secondly, bank managers can foster the principle of knowing their customers to manage inherent risk. Bank managers can respond to market challenges to foster and sustain competitiveness (Okeyo et al., 2018). Bank managers may consider service quality, business knowledge, and enhanced credit analytic strategies to gain effective internal control in the marketplace (Arshad & Su, 2015). The finding may provide bank managers with information on developing and implementing strategies to manage inherent risk in the retail loans portfolio.

Bank managers can reduce costs, increase productivity, and improve customer services to satisfy customers and stakeholders (Sigalas, 2015). Bank managers can optimize resource allocations that align with practical strategies, improve performance,

and integrate the volatility in today’s markets and environment (Liu & Liang, 2016). This study's findings concurred with the ERM framework to evaluate the control environment, risk assessment, control activities, information, and monitoring. Bank managers can use the ERM framework to analyze internal control mechanisms to manage loan portfolios' inherent risk. The findings are relevant to professional practice in that bank managers and leaders may obtain useful information on effectively managing inherent risk and improving the internal control environment to mitigate inherent risks.

This study's findings and recommendations might serve as the basis for bank managers and leaders to change strategies and improve loan practices. The findings showed that knowing your customer, business knowledge, enhancing credit analytics, technology, and effective leadership are the leading strategies of bank success in mitigating inherent risk in loan portfolios. The study results may assist bank managers in identifying and using the resources they need to manage risk and improve internal control. This study is significant to business practice in that the results may provide bank management with the knowledge to manage loan activities and enhance growth. The results could enable bank managers to gain insights into successful strategies and practices that may improve mitigating inherent risks in loan portfolios. Bank managers may use this study's findings to develop and implement strategies to reduce business losses and increase profits.

Implications for Social Change

This study's implications for social change include the potential development of risk management strategies that bank managers can implement to mitigate inherent risk in

loan portfolios. The study results could help bank managers affect social change by funding small businesses, providing jobs in the community, and providing retail loans and mortgages. Bank managers could further effect social change by building a welcome and inclusive work culture so that every customer could reach their financial goals and contribute to the community. A lower default rate for individual bank loans might increase credit scores and further increase the propensity to access more credit to boost the day-to-day living standards of individuals in the community (Rahman & Banna, 2016).

Positive social change may occur if educating and informing lenders leads to fewer lenders defaulting on retail loans. Immergluck (2015) concluded a high correlation between borrowers who had a loan and the propensity of defaulting. Loan default can harm the individual's financial health and availability to access credit in the future as banks report to the credit bureau individual who defaults on their loans. A default will lower an individual's credit score and making borrowing more expensive when they need credit. Financial hardship and credit challenges can lead to negative social consequences for individuals in the community. When individuals are unable to access credit and face financial hardship, the burden becomes unbearable and desperate. Banks managers might consider ways to better support individuals in those communities through their corporate social responsibility campaigns to elevate poverty.

Recommendations for Action

Banks and financial institution leaders may consider their strategies against those outlined in the themes uncovered in this study. A potential borrower looking to acquire a

loan may consider the lending organization's offerings on interest rates and terms before deciding (Lugo, 2014). Establishing business knowledge and taking advantage of technology might mitigate and ensure guardrails within retail loan portfolios. Advance technology and business knowledge will help provide in-build control to manage risk with the loan portfolios better (Kulathunga et al., 2020). If these efforts are not in operation within the bank or financial institutions, leaders and managers should implement or improve similar ideas related to business knowledge and technological advancements.

For this study, I discovered strategies to mitigate inherent risk in retail loan portfolios. Based on the study findings, I recommend that managers implement education and training programs to foster business knowledge and continuous improvement initiative to better address inherent risk in loan portfolios. A simple education and training program might be welcoming by bank employees to better understand and deliver their services to their clients efficiently and effectively, thereby encouraging employees at all levels of the bank to work together to better address risks. Also, bank managers should emphasize using advanced technology to evaluate and mitigate inherent risk in loan portfolios. Technological advancement is critical for bank managers to better utilize and capture relevant information for the decision-making process. With innovation and disruptive technologies, responding to inherent risk will be quick and readily accessible.

Findings from this study are vital to bank managers, credit officers, and underwriters. Credit analytics, especially in the retail loan portfolio, is essential for a

bank's ability to mitigate loan portfolios' inherent risk. Moreover, all stakeholders involved in the mitigation of retail loan portfolios may draw interest in the study findings. Understanding this study's results may be particularly beneficial to current bank executives with authoritative decisions on loan approvals. Furthermore, the need for consistent innovation and proactive risk measures might aid in the mitigation of inherent risk in loan portfolios while improving economic growth.

The study results could be a useful resource to bank managers in developing and managing the inherent risk in loan portfolios. I will share a summary of the findings with the study participants when I study is completed. This study will be published by ProQuest and academic journals. I am also working with my doctoral study chair and another researcher to publish the study's results in an academic conference and peer-reviewed journal. Thus, the results of my doctoral study will be available to other scholars, practitioners, and researchers, which could help their practice and advancements of inherent risk research in loan portfolios.

Recommendations for Further Research

The findings from this study provide strategies for additional exploration in retail loan portfolio risk. The reduction of loan volume may be more substantial as the loan portfolio's riskiness increases (Pausch & Welzel, 2017). Therefore, researchers should conduct future studies to explore issues not covered in this study to address delimitations such a credit underwriting, risk reduction behaviors, and financial risk-sharing. I recommend exploring those banks that offer retail loans and endured the financial

ramification due to the COVID-19 pandemic. I also recommend conducting quantitative research on systemic risk and credit risk management.

While developing my study, I identified three limitations. The first limitation was related to scheduling interviews. The second limitation was that the study findings might not be generalizable to banks outside of the study's specific geographic location. The third limitation was that bank managers might misrepresent or present biased responses to influence the study findings. To address potential limitations in future research, the future researcher should be flexible when scheduling interviews. The future researcher should develop a large enough pool of participants so that if there are scheduling difficulties, the researcher will collect sufficient data from other participants. The future researcher should clearly define the research boundaries to avoid making conclusions that go beyond pre-established boundaries. Finally, the future researcher should establish robust criteria for participation to identify knowledgeable and unbiased participants.

Reflections

In pursuing this Doctor of Business Administration (DBA), I acquired several skills and experiences on the academic and personal level. I prioritized and balanced multiple responsibilities in this pursuit, including family, school, business, and work. Time management was critical and a key to my success. During the research process, my understanding of the doctoral research journey evolved. I gained a better understanding of strategies bank managers use to mitigate inherent risks in loan portfolios.

Furthermore, I developed an attitude of perseverance and dedication to complete this study. The DBA learning process provided me skills such as critical thinking,

synthesizing, and scholarly writing. On a personal level, the DBA journey gave me a new perspective on being patient and never giving up on completing this degree. Therefore, I will conclude that the continued pursuit of one's goals is a key to achieving academic success.

Another significant skill that I gained was the appreciation of objectivity over personal bias, such as reviewing data and coming to conclusions purely based on fact and evidence. Alleviating my personal biases on this topic as a former bank executive was even a more significant challenge. I was mindful while conducting the study of possible bias and deliberated on strategies to mitigate biases.

On collecting data to support this research, I initially took for granted how time-consuming and difficult securing qualifying participants to participate in the study could be and understanding the time and challenge of securing participants. I sent over 50 participants invitation requests and emails, and most potential participants did not respond to my initial request. Those who responded to my research participation request cited busy schedules or company policy as reasons that they could participate in the study. After continuous effort, I managed to secure eight qualified and knowledgeable participants willing to discuss the strategies to mitigate inherent risk in retail loan portfolios. Despite the sample size, participation shared sufficient information to allow saturation and complete the data collection process.

The study's findings resonate well with me as they created reflections of my experience as a bank manager and a consumer of retail loans. I was able to determine strategies from the findings that were not thoroughly implemented in my past

experiences. What may be more concerning about the topic is that retail loan risks trend back in the financial market because of the Covid-19 pandemic. My expectation that my study's findings contribute to an increased understanding of strategies to mitigate inherent in retail loan portfolios in the future.

Conclusion

In this research, bank managers revealed specific challenges that exist in banking. The function of risk management in banking is complicated. Banks managers continue to look for the best risk assessment tools and practices to mitigate the high level of inherent risk in their loan portfolios (Thakor, 2018). To compete in these ever-changing risks adverse financial environments, bank managers should stay abreast with their customer base, business knowledge, and continuous improvements, enhance credit analytics, and better use technology to mitigate risk in loan portfolios. These findings might impact the professional business to understand and implement strategies that enhance and mitigate loan portfolio risks. The research findings have the potential for social change that could significantly influence local community residents by increasing access to credit to build local businesses and better their communities. Adopting a holistic perspective and advancement in technology can be very vital to mitigate risks. A better understanding of banks' control environment would benefit the banks in mitigating risk, protecting their reputation, and minimizing loss to stakeholders.

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Appendix: Interview Protocol

Participant Code: _________ **Date of Interview**: __________________________

Interview Format: In-Person_________ Phone___________ Other: ___________

If other describe: ____

Miscellaneous Notes and Interview Format

Introduction to Interview

My name is Henrich Yetna Edimo, and I am a doctoral candidate at Walden University. I will like to thank you for your time and for granting me this interview. The purpose of this interview is to gain an improved understanding of strategies bank managers use to mitigate the level of inherent risk in retail loan portfolios. As a manager and executive in the banking sector, I am very interested in what you have to say regarding your experience in mitigating inherent risk in retail loan portfolios.

After I introduce myself, I will begin the interview with the following steps:

Step 1

I will offer participants refreshments

Step 2

I will make sure the participants read and understand the consent form before signing the document.

Step 3

I will start with the interview questions.

- I will watch for non-verbal queues.
- Restate or paraphrase the questions as needed.

- Ask follow-up questions to get more in-depth.
- I will conclude the interview, stop the audio recording, and thank the interviewee again for taking part in the interview.

Step 4

As indicated in the consent form, participants will be asked to review for accuracy summarized post-interview data. I will summarize the interview and synthesize your responses to each question. I will subsequently email it to you for confirmation of accuracy; you can make corrections to ensure an accurate representation of your views and email the document back to me.