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Strategies for Banks Anti-Money Laundering/Counter-Terrorism Finance Compliance Programs to Protect Financial Systems

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Walden University

College of Management and Technology

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Pamela L. Connell

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Walden University
2022

Abstract

Strategies for Banks Anti-Money Laundering/Counter-Terrorism Finance Compliance
Programs to Protect Financial Systems

by

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MIM, University of Maryland University College, 2008

MBA, University of Maryland University College, 2010

BS, University of Maryland University College, 2005

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

International Business

Walden University

April 2022

Abstract

Ineffective implementation of anti-money laundering (AML) compliance programs exposes the vulnerability of banks' and increases the threats of money laundering and terrorist financing. The banking community must address the threat of money laundering and terrorism finance to protect the global financial system from abuse. Grounded in the fraud management lifecycle theory, the purpose of this qualitative multiple case study was to explore strategies to reduce threats of money laundering and terrorist financing. Data were collected from semistructured interviews, a review of bank policy documents, and previous Bank Secrecy Act (BSA) cases. The participants comprised six BSA/AML compliance officers at banks in the United States and Canada with experience implementing successful AML compliance programs. Thematic data analysis revealed three themes: effective internal and external communications, enhanced human/technological collaboration, and consistent internal compliance training. A key recommendation is to incorporate external communications with law enforcement. Potential, positive social changes include better educated bank compliance personnel, improved transactional monitoring, and enhanced employee training to reduce illicit and fraudulent financial activity which could result in weakened cartel operations, increased tax revenues, and more prosperous and safer communities.

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Dedication

I dedicate this study to my late mother, Mildred Hill Anderson, and my grandfather John L. Hill. My mother's undying love, encouragement, and prayers taught me that anything was possible. My grandfather's love and never-ending support made me feel safe. They introduced me to God and fed my belief and faith. I stand on their shoulders and will be forever grateful for the foundation they created for me.

I also dedicate this to my husband, Mark, and our children, Marcus and Hayley, for your support, patience, and encouragement throughout my doctoral journey. To my husband, thank you for your love, support, patience, and cooking talents. We've faced yet another challenge together. To my children, Marcus and Hayley, thank you for your love, support, and reminding me that there was no acceptable reason for quitting. I hope that my accomplishments and hard work will remind them that nothing is too hard nor too late to achieve.

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Section 1: Foundation of the Study

Problem Statement

Money laundering and terrorism financing are transnational problems that cause substantial harm to the global economy. The resolution requires modernization of governmental policies and more innovative anti-money laundering (AML) detection techniques of financial operations at banks (Teichmann, 2019, p. 9). Between \$800 billion (bn) and \$2.8 trillion (tn) or between 2% and 5% of gross domestic product (GDP) worldwide is lost annually through money laundering and terrorism financing (Nazri et al., 2019, p. 190). The general business problem is that some bank compliance officers in United States, Mexico, and Canada (USMCA) do not have a protocol to design and implement AML/counter-terrorist financing (CFT) compliance programs to reduce AML vulnerabilities and protect their financial systems. The specific business problem was that some bank compliance officers lack strategies to upgrade their AML compliance programs, technology, and procedures to reduce AML/CFT threats, to protect competitive positioning and profits.

Purpose Statement

The purpose of this qualitative multiple case study was to explore past AML cases of penalized banks and interview current bank compliance officers about their strategies to upgrade their AML compliance program, technology, and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profits. The targeted population is an estimated nine bank compliance officers within the United States-Mexico-Canada (USMCA) Trade agreement, formerly known as the North American Free Trade Agreement (NAFTA), who demonstrate success at developing and maintaining

AML/CFT compliance programs to combat financial crimes and protect financial systems per the Financial Action Task Force (FATF) 40 recommendations (FATF, 2008). The implications for social change include better-educated bank compliance personnel, improved monitoring, and enhanced employee training to reduce illicit and fraudulent financial activity that threatens banks' financial systems. Stricter compliance may also improve profitability because of fewer regulatory fines, reduced terrorist threats, reduced drug money repatriation to source countries, in turn, weakening cartel operations. Increased tax revenues from greater enforcement may improve employment, societal infrastructure, and developments, leading to more prosperous and safer communities.

Nature of the Study

Three research methodologies are available for a study: qualitative, quantitative, and mixed (Saunders et al., 2016). A researcher using the qualitative methodology analyzes a phenomenon that challenges the quantification of statistical analytics (Yin, 2017). A qualitative researcher strives to provide knowledge and understanding of a phenomenon by revealing patterns and themes through systematic coding and classifying text (Renz et al., 2018). I chose the qualitative methodology because I explored current compliance officers' strategies to discover any missing or misaligned components of banks' money laundering compliance programs, technology, and procedures. Analysis of interviews with bank compliance officers revealed strategies to upgrade their AML compliance program, technology, and procedures. Quantitative and mixed methodology researchers use statistical analysis to examine variables' characteristics or relationships to test associated statistical hypotheses. I did not choose these models because I did not examine variables'

characteristics or test relationships among compliance program components. Instead, I studied the strategies for developing, implementing, and improving strategies for implementing successful AML compliance programs. I therefore chose the qualitative method for this study.

Qualitative researchers can choose from ethnographic, phenomenological, narrative, or case study designs. Researchers use ethnography to study and understand the culture of a social group to include customs and artifacts (Saunders et al., 2016). Therefore, I did not choose ethnography as my design because I studied a phenomenon, not a culture. Narrative analysis obtains individual participants' stories about incidents to analyze the precursors and consequences of the actions (Yin, 2018). I did not choose narrative analysis because I am not trying to determine a connection between acts of money laundering and terrorism finance. I will conduct a multiple-case study instead of a single case study because comparing and contrasting multiple cases across the AML phenomenon to identify patterns increases the rigor of my study.

Research Question

What strategies do some compliance officers use to develop, implement, and upgrade AML compliance program technology and procedures to reduce money laundering and terrorist financing threats and protect competitive positioning and profit?

Interview Questions

1. Who is responsible for the maintenance and upgrading your AML/CFT compliance program?

2. How is your institution's compliance program designed specifically to prevent and detect money laundering?
3. How does your institution remain informed of the most current trends affecting AML/CFT compliance programs to ensure they are up to date?
4. How do you assess the effectiveness of your bank's AML/CFT strategies and their implementation?
5. How is your AML/CFT compliance program audited/tested?
6. How often are your strategy(ies)/protocol(s) and implementation processes reviewed for update considerations?
7. What role does technology play in your AML/CFT design strategies?
8. How is artificial intelligence or machine learning incorporated in your AML compliance program?
9. How does your organization's AML/CFT strategies drive the implementation of fast-paced technology evolutions into your AML compliance program to remain up to date?
10. How are your staff trained to prepare for their respective work roles in the AML/CFT compliance program?
11. What other challenges or successes you would like to discuss related to your organization's AML/CFT compliance strategies you developed and implemented?

Conceptual Framework

I choose Wilhelm's fraud management lifecycle theory as the conceptual framework for my study. The fraud management lifecycle theory originated in 2004, has

eight stages: deterrence, prevention, detection, mitigations, analysis, policy, investigation, and prosecution (Wilhelm, 2004). All the stages separately and as a part of a framework are applicable across multiple industries and disparate financial systems (Wilhelm, 2004). More than 37 member jurisdictions and two regional organizations endorse FATF's 40 recommendations for financial fraud and money laundering prevention (FATF, 2012-2019). Members of FATF recommend focusing on prevention, detection, monitoring, and prosecution of conduct money laundering and terrorist financing (FATF, 2012-2019).

The fraud management lifecycle may help bank compliance officers determine misalignment of the AML/CFT compliance program components and facilitate detecting threatening gaps in the protection of financial banking systems for designing strategies for upgrading their AML compliance program technology and procedures. I chose the fraud management lifecycle theory as the conceptual lens for my proposed study because it is expected to align with globally accepted AML standards, the FATF's 40 recommendations which should be the basis for banks developing and implementing their AML/CFT strategies.

Significance of the Study

The study's findings may illuminate tradecraft, techniques, and practices that enhance business security, integrity, and the reputations of financial institutions as defined by the FATF. Compliance officers are crucial to the AML program because they influence resources at all levels of the organization. Should the AML/CTF compliance programs fail, money laundering can cause financial, security, and social damage because the flow of money is global. Bank compliance officers and innovative AML/CFT

compliance programs play a predominant role in reducing threats of money laundering and terrorist financing. Both actions strengthen the integrity of banks, reduce potential liquidity problems, and stabilize the financial system, all of which contribute to public confidence.

Contribution to Business Practice

The findings, conclusions, and recommendations of this study may contribute to improved strategies that enhance AML compliance program technology and procedures within financial institutions. They may also improve training programs for gatekeepers and compliance staff that will enhance ongoing AML monitoring and customer due diligence while improving employee analytical skills. Criminals and terrorists exploit the anonymity, secrecy, and global transaction capabilities banks offer (Reed-Woodard, 2018). The findings of my study may strengthen AML/CFT compliance programs by facilitating the detection of missing or misaligned components. Developing strategies to implement continuously upgrading AML/CFT compliance programs may close threatening gaps in the protection of financial banking systems.

Implications for Social Change

The implications for positive social change include the potential for findings from this study to improve bank compliance officers' abilities to detect money laundering quicker and more efficiently. Quicker detection and alerts make it more difficult for money launderers to accomplish placement, layering, or integration of laundered money into lawful businesses. Recapturing lost taxes from illicit money laundering activities

would provide a broader tax base for communities and provide owners of real, not front, businesses to grow faster, while creating higher employment and safer communities.

Operational Definitions

Bank Secrecy Act (BSA): The act requires financial institutions to aid in the detection and prevention of money laundering by maintaining records of cash purchases of negotiable instruments, file reports of cash transactions exceeding \$10,000 (daily aggregate amount), and reporting suspicious activity that might indicate money laundering, tax evasion, or other criminal activities (FinCEN, 2021). The Currency and Foreign Transactions Reporting Act of 1970 is the BSA's formal name (FinCEN, 2021).

Beneficial owner: Each individual who, directly or indirectly, through a contract, an arrangement or understanding owns 25 percent or more of the equity interests of a legal entity customer, or the funds or assets in an account that, as a practical matter, enables the individual, directly or indirectly, to control, manage or direct the account (Federal Financial Institutions Examination Council, 2018; U.S. Securities Exchange Commission).

Correspondent account: Foreign financial institutions use this type account to receive deposits from, or to make payments or other disbursements on behalf of, the foreign financial institution, or to handle other financial transactions related to such foreign financial institution (U.S. Securities Exchange Commission).

Customer due diligence: A procedure to obtain and analyze sufficient customer information to understand the nature and purpose of customer relationships to develop a customer risk profile (Federal Financial Institutions Examination Council, 2021).

Ongoing monitoring must continue to identify and report suspicious transactions and update customer information, including information regarding the beneficial owner(s) of legal entity customers (Federal Financial Institutions Examination Council, 2021).

FATF 40 Recommendations: International standards designed to fight money laundering, terrorist financing, and weapons proliferation. Standards are globally endorsed, routinely modernized to address evolving technology and prevent the illicit use of the global financial system. The standards were last amended in October 2020 (FATF, 2020).

FATF: An intergovernmental policy-making body that sets international standards designed to prevent organized crime, corruption, and terrorism. The standards facilitate the implementation of legal, regulatory, and operational measures for combating money laundering, terrorist financing, and other related threats to the integrity of the international financial system (FATF, 2020). FATF also works to influence national legislative and regulatory anti-money laundering transformations (FATF, 2020).

Reputational risk: A risk of potential financial losses of capital and income, a deterioration of customer base, reduced ability to perform business activities or costly litigation due to a bank's declining image caused by negative perceptions of the clients and other stakeholders based on bank business practices. The assessment of additional expenditures for reputation recovery, if damaged. (Federal Reserve, 2020; Trostianska & Semencha, 2020).

Trade-Based Money Laundering (TBML): Involves international trade transactions' exploitation to transfer value and obscure the origin of illicit funds. TBML

is one of the most difficult money laundering techniques to detect due to the complexities of transactions that rely on misrepresenting the price, quantity, or type of goods in trade transactions (Government Accounting Office [GAO], 2020).

Wolfsberg Group: An association of 13 global banks that aims to develop frameworks and guidance for managing financial crime risks, particularly concerning Know Your Customer, AML, and Counter-Terrorist Financing policies. The organization publishes the Wolfsberg AML Principles for private banking in October 2000 (Wolfsberg Group, 2018).

Assumptions, Limitations, and Delimitations

All research includes assumptions, limitations, and delimitations. Scholars acknowledge these factors to enhance the value of their findings and to alleviate misinterpretations of the results. Assumptions are unexamined beliefs (Clark & Veale, 2018). Limitations are weaknesses beyond the researcher's control (Theofanidis & Fountouki, 2019). Delimitations are the self-imposed boundaries of the study (Theofanidis & Fountouki, 2019).

Assumptions

Assumptions are why a researcher chooses a topic and shapes their approach to the analytical process (Bansal et al., 2018; Clark & Veale, 2018). This study included three assumptions. The first assumption was that the criminal activity of money laundering and terrorism financing will continue to pose a threat to the financial systems and society. The second assumption was that all compliance officers strive to fully comply with all regulations and standards to mitigate the threat of money laundering and

terrorism financing to protect their institution's competitive positioning and profits. The third assumption was that participants will respond truthfully and comprehensively because their contribution is voluntary and can be withdrawn at any time without consequences, and confidentiality will be preserved (Walden University, 2020).

Limitations

Limitations are imposed restrictions and potential weaknesses in the study beyond a researcher's control, affecting the study results or conclusions (Theofanidis & Fountouki, 2019). This study had three limitations. The first was that participants' strategies will not apply to all banks because AML compliance strategies are uniquely dependent on a bank's risk factors. Banks must consider geographic area, bank size, customer profiles, technology, and risk tolerance. The second limitation was that money laundering and terrorism financing are global issues affecting banks' AML compliance programs worldwide; however, the technology use and tradecraft sophistication does not exist equally in all locations. The third limitation was that this study's geographic area was restricted to the member states of the United States-Mexico-Canada Agreement, formerly known as NAFTA. Banks in other parts of the world may require different strategies depending on their geographic region's risk factors.

Delimitations

The delimitations are the characteristics that limit the scope and define the study's boundaries to include the theoretical background and research questions (Theofanidis & Fountouki, 2019). I conducted a literature review of more than 150 peer-reviewed articles

on money laundering, terrorism finance, and AML compliance-related topics. Keywords used included research limitations, delimitations, assumptions, and biases covering five years in Walden's and Google scholar databases (Theofanidis & Fountouki, 2019). The analysis concluded that the articles apply to this study's objectives. Although money laundering and terrorism finance pose a global threat to financial institutions, the scope of this study was restricted to: (a) bank compliance officers in the United States, Canada, and Mexico with (b) experience in developing and implementing strategies for AML and terrorist financing compliance programs.

A Review of the Professional and Academic Literature

In this literature review, I examined money laundering and terrorist financing schemes that pose significant challenges to bank compliance officers developing AML compliance programs. Understanding the tactics of the crimes is essential to understanding the risks they pose and developing strategies to defend against them to protect the financial system (Teichmann, 2019). I intended to demonstrate a connection between the business problem, current literature, and the research question. I explored the types of strategies bank compliance officers consider in designing their respective AML compliance programs. Bank size, geographic area risk, customer behavior, transaction patterns, and third-party relations programs were the criteria used to design compliance programs (Dolar & Shughart II, 2012; Naheem, 2019). I surveyed technological considerations of bank compliance officers, as design components of AML compliance programs. Money laundering and terrorist financing are multifaceted phenomena

requiring technology-assisted analysis of a vast number of evidentiary transactions and determining which ones are suspicious (Drezewski et al., 2012). I reviewed the laws, regulations, and standards that bank compliance officers are mandated to implement with their AML compliance programs. National laws, regulations, and standards are directed from an international collaborative level but are diverse in implementation based on national prioritization of threats to the respective country's financial systems (Haley, 2018; Huang, 2015; Simser, 2020). Articles in this review relate to the research question: What strategies do some compliance officers use to develop, implement, upgrade AML compliance program technology and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profit? The documentation analysis sources included peer-reviewed journal articles, archival documents from FATF, the Wolfsberg Group, and FinCEN, books, government publications, professional organization publications, and websites.

I researched varied topics related to AML, terrorist financing, and AML compliance requirements. Research materials were sourced from several databases that include ABI/INFORM Global, Business Source Complete, Criminal Justice Database, Emerald Management, Science Direct, ProQuest Central, and Google Scholar. Ulrich's Periodical Directory confirmed articles were peer-reviewed journals. Relevant content was discovered using the following key terms: *anti-money laundering, terrorist financing, fraud, compliance, technology, artificial intelligence, machine learning, strategies, due diligence, front companies, shell companies, gatekeepers, correspondent banking, monitoring, offshore banking, corruption, detection, investigation, and risk*

assessment. Currently the study contains 125 references from peer reviewed journals books, documents from webpages. One hundred, five (84 %) were references published between 2017 and 2021. One hundred, six (85%) of the references were peer reviewed sources.

The review began with an overview of the challenges bank compliance officers face in their endeavors to protect institutional systems, competitive positioning, and profits. I continued with an analysis of the conceptual framework, the fraud management lifecycle theory (FMLT), and its applicability to bank compliance officers' strategies to develop, implement, and upgrade their AML compliance program. The review of the FMLT included a review of the existing body of knowledge relating to each of the eight components of the theory: (a) deterrence, (b) prevention, (c) detection, (d) mitigation, (e) analysis, (f) policy, (g) investigation, and (h) prosecution as each one related to developing a holistic strategy for AML compliance (Wilhelm, 2004). I continued with a review and synthesis of the literature on an AML compliance program's required pillar. I concluded the review with an analysis of the literature on effective strategies for AML compliance.

The Fraud Management Lifecycle Theory

The law requires evidence of a materially false statement with an intent to deceive, a victim's reliance on the information, and damages are necessary to prove fraud (Lawrence & Wells, 2004). Money laundering refers to financial transactions that aim to conceal the use of money derived from illegal acts/sources by intentionally concealing

the identity of criminals/criminal organizations and with the intent to convert it to assets that appear legitimate (Cornell Law School, n.d.; Van Duyne et al., 2018). Terrorism finance involves the raising, moving, storing, and spending legal and illicit funds to commit terrorism. Money laundering and terrorism financing actors use the same procedures to conceal the sources, movement, and funding uses. Intentional deception, victims, and damages are common denominators among these phenomena.

Bank compliance officers strategize to defend their institutions from the intentional deceptions of money launderers hiding the illegal source of their funds and beneficial owners. The banks and society are potential victims, and the damages of money laundering and terrorism finance are costly and long-lasting. The FMLT describes a comprehensive framework of eight components: (a) deterrence, (b) prevention, (c) detection, (d) mitigation, (e) analysis, (f) policy, (g) investigation, and (h) prosecution that interact to depict the lifecycle that transcends the three phenomena and affect financial institutions (Wilhelm, 2004). Bank compliance officers must devise and implement AML compliance programs that balance the components using technology to adhere to laws and safeguard their banks' financial systems, profits, and reputations from these phenomena' threats. Strategies' development is customized to the risks of the respective banks.

Fraud Triangle and Fraud Diamond Theories

Fraud is an intentional act of deception that justifies taking advantage of an individual or entity (Munteanu & Baraghin, 2020). Fraud can potentially be the first step

of money laundering (Association of Certified Anti- Money Laundering Specialist [ACAMS], 2021). The fraud triangle theory and the fraud diamond theory are two primary theories associated with the fraud. Donald Cressey proposed the fraud triangle theory (FTT) in 1950. FTT is composed of three elements; perceived personal, employment stress, and or external pressure from difficult scenarios, situational opportunity to commit an illegal act, and the rationalization of illegal acts (Abdullahi & Mansor, 2015; Munteanu & Baraghin, 2020). Approximately 95% of reported fraud cases are committed due to perceived financial pressures (Abdullahi & Mansor, 2015). Opportunity to commit fraud is associated with weak internal controls or positions held within an organization. Lastly, the fraudster fabricates a morally acceptable justification for the fraudulent actions. David T. Wolfe and Dana R. Hermanson introduce the fraud diamond theory (FDT) in 2004. The theorists expound on the fraud triangle theory by adding the element of capability (Abdullahi & Mansor, 2015). The fraudster must possess the appropriate competencies such as accounting knowledge. Bank fraud exists in multiple forms, such as credit card fraud, check fraud, and identity theft (Abdullahi & Mansor, 2015). Based on the forms of bank fraud, it can be classified as internal or external. Insider threats include employees taking advantage of their positions. External threats can be customers who have discovered a vulnerability. Prevention is the focus of fraud as opposed to mitigation of money laundering, possibly based on detection potential.

The proposed foundational reasons for fraud are significantly different from the motivators of money laundering and terrorism financing. Fraud is said to be motivated by pressure, enabled by opportunity, and mentally justifiable. None of these elements come into consideration with money laundering or terrorism financing. Greed motivates money launderers, and ideology motivates terrorists; breaking the law is an acceptable part of the process; breaking the law is an acceptable part of the process (FinCEN, 2021). Money laundering and terrorism financing threats originate externally from banks. The forms of fraud previously mentioned are used as tools to commit money laundering and terrorism financing. The severity of the impact of money laundering and terrorism financing poses substantially more dire destruction than fraud to the extent that international organizations, FATF and EGMONT, establish standards and policies that member states implement.

The FTT and FDT only address the fraudster and the criminal act; they do not address the environment of the crime or the full cycle. FMLCT is appropriate because it considers deterrence, analysis, the investigation process, and prosecution. Analysis and investigations acknowledge the incorporation of evolving technology, training, and policies. Some institutions do not prosecute offenders because they do not want the public to be aware of their vulnerability. Not prosecuting criminals sends a message of acceptance of the crime.

Deterrence

According to Wilhelm (2004), increasing the difficulty of committing a crime is a deterrence. The deterrence theory proposes that the certainty or fear of being caught

committing a crime is more of a deterrent than the actual punishment for a crime (Tomlinson, 2016). Neither the celerity at which punishment is issued, nor the severity of the punishment deters criminal acts because criminals do not know the magnitude of the punishment that the Department of Justice (DOJ) can dispense. In relation to money laundering, other deterrents are geographic distance, linguistics, and cultural difference. Money launderers tend to migrate toward countries with lax AML regimes; the closer the proximity between countries, the higher the probability of money laundering (Barone et al., 2017; Maloney et al., 2019).

The United States-Mexico-Canada Agreement (USMCA), formerly known as NAFTA, is a trade agreement that originated in 1994 to eliminate trade barriers between the countries. Criminals also took advantage of these agreements, leading to the United States and Canada conducting a joint border drug threat assessment in December 2001 to develop strategies to combat cross-border crimes that included money laundering (Solicitor General Canada, 2001). Canada implemented Bill C22 in June 2000, which created Canada's financial intelligence unit (FIU), Financial Transactions Reports and Analysis Center of Canada (FINTRAC), equal to the United States' FinCEN. Bill C22 also mandates reporting large financial cross-border transactions, revealing a frequent high volume of electronic transfers from the U.S. to Canada.

In response to FATF's stricter standards issued in 2012, foreign-owned bank branches operating in Mexico decreased by 7.4% between 2011 and 2016 because Mexican banks that maintain correspondent relationships with U.S. banks attract money launderers with access to both sides of the border (Perez, 2017). Mexico's drug cartel

operations and low money laundering conviction rate made deterrence challenging. Wachovia allowed millions in drug trafficking profits from Mexican Casas de Cambios/ currency exchange houses to flow into the U.S. financial system. Cartels in Mexico favored using HSBC because they failed to comply with AML regulations (Huang, 2015). The United States, Canada, and Mexico share borders, trade agreements, and the threat of money laundering and terrorism finance from drug trafficking organizations to their respective financial systems. Therefore, collaboration and information sharing between regulators, law enforcement, and banks in the three countries is essential.

HSBC Bank USA violated the BSA with Mexico, and HSBC Group violated the International Emergency Economic Powers Act (IEEPA) and the Trading with the Enemy Act (TWEA) with the sanctioned countries Cuba and Saudia Arabia (Buchanan & Zabala, 2017). The bank pleaded guilty and agreed to a \$2 billion fine and a deferred prosecution with US authorities in December 2012 (Buchanan & Zabala, 2017). A deferred prosecution is a form of probation for a bank guilty of charges brought against them. The regulatory community gave the bank compliance improvements that must improve over five years. An outside entity monitored the progress. HSBC USA maintained an ineffective AML compliance program with incompetent due diligence execution on transactions going through the correspondent account affiliated with Mexico. Two identified drug cartels laundered more than \$800 million in narcotics sales profits in a blatantly obvious manner in the HSBC Mexico branches (Buchanan & Zabala, 2017). Hundreds of billions in wire transfers flowed from Mexico, in addition to the purchase of almost \$10 billion physical US dollars from HSBC Mexico (Buchanan &

Zabala, 2017). The HSBC group facilitated sanctions evasions by allowing millions of US dollars to flow through the US financial system for the aforementioned sanctioned countries. According to Buchanan and Zabala (2017), DOJ deterred its prosecution of the bank based on a concern about the extent of the negative effect on the global financial system. Banks being too big to fail will always be a consideration, and banks will always be able to pay the fines. Therefore, deterrence focuses on the individuals, specifically, executives, who wittingly abuse their power and the banks to commit crimes. Because job loss is not a sufficient deterrent, laws enable the possibility to prosecute and send executives to jail (Tomlinson, 2016; Yeoh, 2016). In 2015, DOJ made FinCEN's policy of personal accountability a federal government-wide approach (Brown-Hruska, 2016). Bank executives are gatekeepers obligated to protect against money laundering acts. AML compliance officers are bank executives responsible for the development and implementation of AML compliance.

The cases in this section cannot unequivocally affirm that the fear of being caught and potentially jailed or, in the case of banks, prosecuted is a stronger deterrent than the actual punishment of committing a violation. The threat of being caught or prosecuted exist before either of the entities discussed in this section committed their initial violations. However, once confronted by law enforcement or regulators, the entities prepared to adhere to the rules and accepted additional monitoring to preclude going to jail or being prosecuted.

Prevention

Prevention refers to keeping an act from happening or existing (Merriam-Webster, n.d.). Concerning money laundering and terrorism financing, it is more accurate to use the term hinder because Capone committed money laundering in the 1920s, but it did not become a crime until 1986 (Van Duyne et al., 2018). The objective of hindering is to create difficulties for someone resulting in a delay or obstruction of another's actions (Merriam-Webster, n.d.). Know your customer (KYC) investigations are one of the first lines of defense for banks as a means of assessing customer risk. KYC inhibits criminals from impersonating law-abiding customers and detecting illicit businesses trying to open accounts to use financial institutions fraudulently. KYC programs are composed of: (a) customer identification program (CIP), (b) customer due diligence (CDD), and (c) ongoing monitoring, all of which are included in the foundational pillars of an AML compliance program. Recommendation number 10 of FATF's 40 recommendations relates to customer due diligence, and KYC is mandated domestically for all banks by the Patriots Act section 352 (Dept of Justice, 2001). KYC requirements echo organizations' documented international and domestic requirements addressing the vulnerability of banks opening accounts to illicit actors. Organizations from the United Nations Convention Against Transnational Organized Crime and the United Convention against Corruptions have hard laws that mandate CDD and KYC to the Basel Committee, the Wolfsberg Group, and the International Organization of Securities Commission (IOSCO) (Nguyen, 2018).

Prior to joining FATF in 2000, Mexico criminalized money laundering in 1996, 10 years after the U.S., and created an FIU (UIF in Mexico) in 1997 (Fabiano, 2012).

Since 2012, several foreign represented bank branch offices have withdrawn from Mexico due to the high risk and costly expenses tied to maintaining AML compliance (Fabiano, 2012). U.S. banks partner with their Mexican counterparts to expedite financial transfers, accepting identification issued by the Mexican consulate to citizens living in the United States. This is a significant vulnerability to the U.S. financial system because the customer due diligence was not conducted, and only a flat fee was paid to conduct a transaction. The speed at which these transactions took place without verified identification of the sender or beneficiary allowed criminals to exploit the process (Fabiano, 2012). The increased intensity of U.S. regulations prompted Mexico to improve its Know Your Customer regulations (Raza et al., 2020).

Neither AML Compliance officers, regulators, or policymakers can prevent money laundering in any form. The best the community of interest can accomplish is developing, implementing, and regularly testing a holistic AML compliance strategy, auditing the systems and processes for weaknesses and gaps, and collaborating with the global financial community. Collaboration with the worldwide community is a must. Once a bad actor enters the financial system, the global economy is vulnerable to activity due to the evolution of technology and the speed at which financial transactions can occur.

Detection

Detection is discovering the true character of an individual/entity or determining the existence, presence, or fact of, in the case of this study, a threat of money laundering or terrorism finance (Merriam-Webster, n.d.). There is a demonstrated interconnection

between deterrence, detection, and mitigation. In the context of strategizing to defend against money laundering and terrorism finance, banks use KYC activities to reveal suspicious activity within and related to customer accounts, which generates reporting to FIUs of banks and respective countries. Suspicious activity reporting (SARs) and currency transaction reporting (CTRs) or a lack thereof are the sources of investigative leads for banks, regulators, and FIUs such as FinCEN. Due to the vast number of transactions and the speed at which they occur, detection is highly reliant on technological assistance. CIP is designed according to the bank's size, location, services provided and must verify the identity of customers and beneficial owners of companies amid identity theft. The minimum requirements are name, address, date of birth, and a governmentally issued identification number. FinCEN requires the bank's CDD programs to assess the nature of the customer relationship, understand the source of funds flowing through an account based on ongoing monitoring and risk profile, updating customer information routinely (Federal Financial Institutions Examination Council, 2018).

Globalization has increased the volume of customers, the speed of transactions, and the structure and amount of data that must be analyzed. Artificial intelligence, big data analytics, machine learning, cloud platforms, and natural language generation (NGL) are forms of technology that enable CIP, CDD, and ongoing monitoring (Katkov, 2019). Technology improves accuracy, efficiency, and speed while reducing false positives and human error. A reduction of false positives creates time for valid AML investigations. An example of how technology enables detection is supervised machine learning combined

with Benford's law to detect anomalies in transaction patterns more expeditiously than manual examination (Badal-Valero et al., 2018).

Detection is challenging because multiple factors contribute to the holistic solution. Technology is evolving quickly and encompasses programming, tools, and cyber influences. Machine learning cannot operate in a vacuum, and human resources must monitor and refine algorithms. Human resources require continuing specialized training in financial topics and technological topics. Lastly, the laws, regulations, and standards must be updated frequently to keep pace with tradecraft and technology.

Mitigation

The Bank Secrecy Act (BSA), also known as the AML law, was passed in 1970 and mandates that banks within the U.S. establish AML compliance programs. Planning and implementing an AML compliance program is an act of mitigation because it reduces the risks and lessens the severity of the impact of money laundering and terrorism finance on banks and society. Mitigation refers to the process of making something less severe, dangerous, painful, harsh (Merriam-Webster, n.d.). According to FinCEN (2020), and the BSA there are five mandatory components to all AML compliance programs: (a) create internal policies, (b) appoint a compliance officer, (c) ongoing employee training, (d) implement independent audit test procedures, and (e) implement. KYC program, which includes CIP, CDD, and ongoing monitoring. Banks that align their resources with their most urgent risks enable a better AML compliance program. The risks for AML compliance programs are defined by the bank size, location, client profiles, and services offered (Cory, 2017). The programs must evolve with technology, laws, and schemes.

Toedorin Obiang was a government official of Equatorial Guinea and son of the president. His published salary was \$60,000. However, he transferred \$100 million between 2004 and 2008 through shell companies (Sharman, 2012). American attorneys facilitated the transfers from Equatorial Guinea to the U.S. to purchase real estate, a jet, and celebrity memorabilia (Sharman, 2012). The attorney established the accounts in the names of the aforementioned shell companies. DOJ alleged the funds were misappropriations and bribes. According to Esoimeme (2019), foundational customer due diligence and identification of the beneficial owner procedures required during the onboarding of new clients should have flagged Obiang's account as high risk (Esoimeme, 2019). Executing the onboarding process of customer due diligence and identifying the beneficial owner of an account are mitigating procedures that should have flagged the account as belonging to a politically exposed person (PEP) with high risk before opening the account. This case emphasizes the need to identify all beneficial owners of shell and front companies, a requirement included in the new AML law of 2020. Minimally, transaction monitoring should have generated a SAR for wire transfers from Equatorial Guinea through France using correspondent accounts. AML controls mitigate crimes when employees adhere to the requirements.

Concerning strong mitigation, the required tools are components of all AML compliance programs that already exist. In the cases discussed above, the human factor and a lack of systems testing reduce the levels of mitigation at banks. Therefore, the AML compliance officer must also plan for the insider threat. Understanding the practical

purpose regulators and auditors serve in enhancing the AML compliance programs validates the collaboration of AML compliance officers, the regulators, and validators.

Analysis

Customer due diligence, transaction activity, geographic location, and third-party associations are components of compliance that must be investigated and routinely monitored. Teams of personnel with specialized investigative skills, extensive data analysis skills, an understanding of economic trade, shipping, and typologies are required in addition to the ability to work across multiple agencies are necessary to provide the holistic analysis (Naheem, 2019). These specially trained personnel are designated non-financial business and professionals (DNFBPs), also known as gatekeepers because they are professionally educated and trained to operate within financial systems and international processes (Nduka & Sechap, ahead-of-print). Professional training also highlights the loopholes and gaps in the system. Lawyers, accountants, real estate agents, and others are obligated to abide by the law and take ethics training. Six out of 40 FATF recommendations, 12,16, 17, 20, 24, and 2 specifically address the responsibilities of gatekeepers/DNFBPs in relation to their duties to help prevent money laundering (Nduka & Sechap, ahead-of-print). Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001 is a domestic law that also addresses gatekeepers' responsibilities. Gatekeepers/DNFBPs are the police of the financial system domestically and internationally.

Banks need to develop techniques and structures to collect, analyze, and share intelligence to enhance risk-based approaches. Criminals respond and evolve quickly to

new laws and defense postures; therefore, ongoing monitoring is essential (Lowe, 2017). The use of technology facilitates banks' abilities to act in a predictive manner. Automated social network analysis is a technique that expedites processes and saves man-hours by enabling node proximity, clustering techniques, and pattern mining (Drezewski et al., 2012). Trained staff can determine which accounts are primary to networks, transactional patterns and detect relationships and roles such as leaders or accountants in a network. Data mining and machine learning are other automated analysis tools that can advance criminal investigations and aid gatekeepers (Drezewski et al., 2012).

The development of intelligent agents and multi-agent systems (MAS), which are computer systems capable of acting independently and learning via artificial intelligence, can enhance AML compliance programs (Gao et al., 2006). The ability of agents and multi-agents to learn facilitates their autonomy, social capabilities, reactivity. MAS has five types of agents: user agents, data collecting agents, monitoring agents, behavior diagnostic agents, and reporting agents capable of conducting analysis, monitoring, and reporting while learning new suspicious activity trends (Gao et al., 2006). The autonomy and learning capability of agents and MAS enable AML compliance programs to react to unusual behaviors. Summarily it requires trained personnel and technology to deliver all-inclusive analysis.

Miami's real estate market and banks have a history of being flooded with the proceeds of drug sales through money laundering by drug traffickers (McPherson, 2017). Shell companies were the suspected vehicles used to commit money laundering because they provide layers of anonymity. The Panama Papers published by the Miami Herald

confirmed and explained law enforcement's suspicions. The Panama law firm Mossack Fonesca facilitated corrupt PEP's and criminal purchases of Miami real estate through shell companies (McPherson, 2017). There were shell company payments for roughly one-third of the property transactions were made in cash through wire transfers from accounts owned by shell companies. The Panama Papers, in addition to a highly publicized case against international drug smuggler Alvaro Lopez, prompted FinCEN to issue a geographic targeting order (GTO) to decrease money laundering in the Miami, Dade county area (McPherson, 2017). The GTO requires identifying all entities owning 25% or more beneficial owners of the equity in shell companies purchasing real estate in Miami for \$1 million or more.

Florida's Ocean Bank and UBC, acquired by Wachovia, entered into respective deferred prosecution agreements for weak AML compliance programs executing inappropriate CDD and KYC (Mazur, 2012). The banks facilitated money laundering for drug trafficking organizations (DTOs). Ocean bank, the largest privately-owned bank in Florida, entered a deferred prosecution agreement for moving approximately \$11 million for Mexican money transmitters owned by DTOs (Mazur, 2012). As a result of inefficiently executing CDD and KYC, Ocean Bank facilitated money laundering without producing a SAR for ten years. Wachovia also failed to detect money laundering activities of Mexican DTOs through Mexican Casio de Cambios and Wachovia's correspondent accounts. Wachovia admitted to laundering at least \$110 million in drug proceeds(Mazur, 2012).

Real estate agents are DNFBPs and must adhere to FATF's 2012 recommendations, amended in June 2021. Recommendations 10, 11, 12, 15, 17, and 22 focus on customer due diligence related to real estate agents, including their dealings with politically exposed persons (FATF, 2012-2019). Real estate agents must exercise customer due diligence (CDD), identify beneficial owners, establish the source of funds, and report cash transactions at or over the established regulated amounts for CTRs and or SARs. These requirements are in addition to the bank AML requirements for reporting CTRs and SARS, the expectation that bank AML compliance personnel are trained to detect suspicious transactions, and the algorithms and technologies used to detect anomalies. One of the key focuses of the new AML law of 2020 requires reporting beneficial owners of all accounts and shell companies to FinCEN. FinCEN must develop a register of beneficial owners for shell corporations registered in the U.S. partially as a response to the failings of the last EGMONT mutual evaluation.

Policy

Customer due diligence, record keeping, and AML reporting are requirements written into laws, standards, and regulations. International and national regulatory organizations mandate their implementation to prevent criminals from manipulating and abusing financial institutions. Regulatory bodies at the international, national, and regional levels dedicate themselves to preventing criminals from abusing the financial systems through money laundering. The United Nations Convention against Transnational Organized Crime and the United Convention against Corruptions are hard laws that mandate CDD and KYC (Nguyen, 2018). The FATF 40 recommendations are

considered soft laws with the same mandate. The Organization for Economic Co-operation and Development (OECD) and FATF coordinate efforts among the member states to combat money laundering, terrorist financing, and threats to financial systems (Abel & MacKay, 2016). Member states are requested to establish AML statutes, laws, and regulations. FATF monitors the member states' implementation progress and gatekeeper activities. Member states also conduct mutual evaluations to assess compliance (FATF, 2021).

The Basel Committee on Banking Supervision issued the Statement on Prevention of Criminal Use of the Banking System for the Purpose of Money Laundering, which includes customer identification. Wolfsberg Group is a group of 13 international banks who originally collaborated to develop guidelines for managing financial crime risk related to private banking and later expanded its scope to address KYC, AML, and counter-terrorism financing (Aiolfi & Bauer, 2012). Four members are U.S. incorporated banks; Bank of America, Citigroup, Goldman Sachs, and J.P. Morgan Chase. Members of the Wolfsburg Group commit to applying the guidance to all their respective subsidiaries, including offshore locations (Aiolfi & Bauer, 2012). The respective bank's risks dictate the customization of the application of the principles (Aiolfi & Bauer, 2012).

FATF's disseminated stricter standards in 2012 that mandated banks and regulators assess and mitigate money laundering and terrorist financing risks, and some global banks retreated from Mexico. Mexico responded by reforming its money laundering policy between 2007 and 2013, resulting in the creation of the country's FIU (Estrada et al., 2021). The FIU was necessary because DTOs laundered approximately \$9

billion in illicit funds through the Mexican financial system in the same time frame.

Canada was the last of the G-7 countries to enact AML laws (Clarke, 2020). The Proceeds of Crime (Money Laundering) and Terrorist Financing Act (CMLTFA) created Canada's FIU, the financial transactions and reports analysis center of Canada (FINTRAC). According to official estimates, drug trafficking, fraud, tax evasion, and corruption contribute \$5 to \$100 billion in Canada's money laundering every year (Meunier, 2018).

There are five major US AML regulations that the banking sector is obligated to implement (Huang, 2015). Money laundering became a federal crime in 1986 with the Money Laundering Control Act of 1986, with a maximum penalty of 20 years and \$500,00 (Huang, 2015). The Bank Secrecy Act of 1970 establishes a system to detect and deter money laundering, including civil and criminal sanctions and a mechanism for forfeiture of assets (Buchanan & Zabala, 2017). The Annunzio-Wylie AML Act of 1992 requires documentation of suspicious activities (SARs), currency transactions (CTRs) of \$10,000, and made it illegal to advise when a SAR is filed (Huang, 2015). The 2001 USA Patriot Act related to 9/11 focuses on reducing money laundering via correspondent bank accounts. Section 352 was impactful by requiring a compliance officer's dedication, continuous employee training on AML, independent audits, and detection procedures such as "Know Your Customer" due diligence (Huang, 2015). The Patriot Act was amended twice by expanding the scope and reach of the U.S. Treasury to investigate money laundering cases. Lastly, the 2009 Financial Fraud task Force focuses on the risk associated with banking politically exposed persons (Buchanan & Zabala, 2017).

Violations of the Bank Secrecy Act (BSA) from 2002 to 2015 totaled more than 156 violations with \$5.4 billion in monetary penalties, which prompted a FinCEN policy change in 2012 to initiate individual and corporate responsibility enforcement linked to BSA/AML compliance (Brown-Hruska, 2016). Banks can no longer pay BSA violations without admitting responsibility for compliance failures. In 2015, the Department of Justice (DOJ) made FinCEN's individual accountability, federal policy, by issuing the Yates Memo. The policy was established because individual accountability was considered one of the most effective weapons against corporate wrongdoing (Brown-Hruska, 2016).

The AML Act of 2020, enacted in December 2020, is a part of the National Defense Authorization Act (NDAA) and represents comprehensive reforms to the BSA of 2001 (Independent Community Bankers of America [ICBA], 2021). Previously, a risk-based approach was encouraged but not mandated when dealing with customers and operations. The reform introduces the codification of the risk-based approach to AML compliance (ICBA, 2021). Shell companies can no longer conceal the identity of beneficiary owners. Corporations and limited liability companies must report the beneficial owner to FinCEN (ICBA, 2021). FinCEN will manage a national register of beneficial owners. However, it will not be available to the public. Treasury is directed to review the CDD rule to eliminate excessive requirements on banks. A whistleblower program similar to the Securities Exchange Commission's program awards up to 30% of the collected fines (ICBA, 2021). An innovation officer at FinCEN and other regulators emphasize modernization via technology and innovation (ICBA, 2021). FinCEN's

investigative capacity expands to foreign banks that retain correspondent accounts with U.S. banks (ICBA, 2021). Lastly, coordination and cooperation between domestic and foreign bank regulators are prioritized (ICBA, 2021).

An obstacle remains to implement an efficient AML compliance program; compliance officers must develop a system that remains aware of evolving domestic regulations and international standards that affect their respective AML programs (Bock, 2020; Lowe, 2017). Compliance officers must consider all laws relevant to their size, geographic location, and customer profiles in developing AML strategies. Banks suffer monetary and reputational consequences if their AML risk assessment strategies do not use predictive analytics that includes a network of policies to reduce organized crime and terrorism threats (Nguyen, 2018; Lowe, 2017). The new emphasis on technological and innovative advances may enable bank systems to evolve with legal updates.

Investigation

Personnel in the Office of the Comptroller of the Currency (OCC) conduct AML examinations to enforce U.S. AML statutes throughout all banks with national charters. Findings may result in a citation of a violation of the law, a matter requiring attention, or an informal sanction with a timed response requirement (O'Sullivan, 2017). If an institution does not resolve informal notifications, situations progress to formal sanctions, including cease and desist actions with monetary fines. Therefore, if an institution has progressed to a formal sanction, there have been numerous AML standards violations. A new trend executed recently is the fining of individuals responsible for AML compliance

within financial institutions (O'Sullivan, 2017). This is similar to the Sarbanes Oxley approach.

A risk-based approach was encouraged and is now codified when dealing with customers and operations because legacy rule-based AML solutions have not been able to evolve with technology and newly implemented regulatory restrictions in a manner that enables financial institutions to detect money laundering in a timely efficient manner (Gao et al., 2006; ICBA, 2021). Rules-based systems cannot learn new money laundering schemes and have a high rate of flagging false positives. Legacy systems are incapable of managing the increasing volume of transactions that flow through banks due to a lack of technological upgrades (Gao et al., 2006).

Data mining and machine learning are automated analysis tools that can hasten criminal investigations and aid gatekeepers (Drezewski et al., 2015). Normal transactions, suspicious transactions, and potential money laundering cases were run through a supervised machine learning model to detect money laundering with the objective of determining which transactions required further investigations (Jullum et al., 2020). The model adapted and learned as transactions were processed. Ultimately, predicting reportable transactions and could eventually indicate which customers should be reported (Jullum et al., 2020). The experiment confirmed that machine learning and artificial intelligence are potential enhancements for AML systems. The human factor is equally needed to design, program, and interpret the findings of models.

Prosecution

The use of TBML increase as AML investigations evolve with technology and laws become stricter (Hataley, 2020). Transnational criminal organizations, terrorists, and corrupt officials use trade-based money laundering (TBML) to move the proceeds of crime through international trade lanes between countries in various forms of value to fund recruitment, operations, drug smuggling, and capital flight. Transnational criminal organizations use TBML to repatriate illicit funds to the respective source countries. The black-market peso exchange is one of the tools used to repatriate illicit funds (Hataley, 2020). As international criminals learn the techniques associated with TBML, the use will continue to increase.

Banks play a role in providing evidence for prosecution by executing KYC, CDD, and monitoring transaction activity. However, transnational shipments are not always financed through banks, and bank officials are not trained to audit transshipments (Hataley, 2020). Financial institutions must train and educate their organizational AML staff, including risk, fraud, investigations, and sanctions personnel, to look beyond transactional data to other aspects of fund flow to or through their institutions (Fruth, 2018). Banks need experienced intelligence practitioners and gatekeepers to identify anomalies (Fruth, 2018).

Government agencies regulate the laws, govern AML activities, and commercial entities have the capabilities to track and trace products and components of their supply chains (Financial Threats Council, 2020). The FBI, the Drug Enforcement Agency (DEA), the Customs and Border Protection (CBP), Treasury, Homeland Security all play a role in combating illicit finance and protecting the country's financial system's integrity. Yet, no

centralized system enables them to share data amongst themselves or with financial institutions (Financial Threats Council, 2020). The intelligence and national security alliance (INSA) proposed a fusion center's development to enable two-way communication between the government and private sector industries who share the responsibilities of protecting the financial system (Financial Threats Council, 2020).

A TBML fusion center would enable banks, gatekeepers, the government, law enforcement, and the private sector to advance the protection of the country's financial systems and businesses (Financial Threats Council, 2020). Artificial intelligence and unsupervised machine learning alone will not improve money laundering and terrorist financing because data scientists who do not have a financial crime, regulatory, or intelligence background to fine-tune the algorithms and develop the tools (Fruth, 2018). There is a requirement for both knowledge pools to be combined for a successful solution. Drug trafficking organizations (DTO) and terrorist groups like Hezbollah are hiring AML experts to execute TBML. Prosecutions require a gatekeeper community effort to increase success.

Standard Chartered settled an allegation of money laundering violations for more than \$1 billion in August 2012 (Buchanan & Zabala, 2017). The regulating and law enforcement community accused Standard Chartered of facilitating 60,000 wire transfers for Iran by stripping information from the transactions that began and ended in European countries. OFAC initially sanctioned Iran in 1979 and again in 1997. Stripping is the crime of intentionally removing information from a financial transaction with the intent

of misrepresenting who the original senders and recipients of the transaction are to circumvent sanctions and laws. The second crime the bank committed was sanctions evasions. While Standard Chartered is a UK bank, the money laundering violations occurred in its U.S. New York (NY) branch location, transcending their account correspondent accounts. The New York State Department of Financial Services (NYSDFS) accused Standard Chartered of laundering \$250 billion through the NY branch for Iran. The Department of Justice, the FBI, the Federal Reserve, and U.S. Treasury partnered to bring charges against the bank, demonstrating the AML compliance is a community effort (Buchanan & Zabala, 2017). The consequences of the bank's actions cost the bank financially in fines and reputation damage. The bank's return on equity declined by 2.41 percent in one year, and the share price dropped 6.2 percent. Reputational damage to the bank's brand may potentially be a deterrent. Settling with the U.S. regulatory community was an alternative to losing their U.S. license. Banks are obligated to monitor transactions, prevent and detect sanctions evasions, and detect stripping. However, in this case, the gap in Standard Chartered's AML compliance strategy was that it did not account for the risk of insider threats or a lack of adequately trained personnel to recognize the problem. The gaps in the strategy triggered the regulatory organizations to act, resulting in financial and reputational damage.

Pillars of AML Compliance Programs

Customer due diligence (CDD) is officially the fifth pillar of bank secrecy act/anti-money laundering (BSA/AML) compliance programs (Grimes & Curl, 2018). The deadline for implementation was 11 May 2018. The five pillars of AML compliance

programs are; maintain a system of internal controls, independent testing, the designation of a compliance officer, establishing personnel training, and establishing risk-based procedures to execute customer due diligence (Grimes & Curl, 2018). The intent of the fifth pillar was to document customer relationships to include beneficial owners. There is also a requirement for ongoing transaction monitoring periodic updates of customer information.

Maintaining an AML program that complies with the bank secrecy act (BSA) is difficult even for the experienced. The evolution of technology, regulations, and risks is ongoing, and therefore AML programs must evolve as well (Gasper, 2016).

Customization and calibration of risk-based scenarios and parameters are considered a good start. The scenarios and parameters should be routinely documented and reviewed by a third party. The third-party review should occur every three to five years to add validity and reliability to the findings (Gasper, 2016). The review enables the calibration of the AML program detection rate.

The regulatory requirements for beneficial ownership will change AML programs of today in less than five years (Pacini et al, 2019). The beneficial ownership requirement changed customer identification (CID) and customer due diligence (CDD) processes (Gasper, 2016). Bank's AI programs must be adaptable because new regulations will change the required data collection and processes. Although training is time-consuming and expensive, it should be customized according to the bank's risk base and provided to the appropriate audience (Gasper, 2016). Training must be periodically updated to match the evolution of the AML program. This is how banks ensure qualified BSA personnel

are monitoring their systems, even if it means outsourcing the activity when internal resources are short.

As a financial institution grows in customers, services offered, and size due to mergers, the AML program grows in scope and capability (Gasper, 2016). Flexibility to grow should be built into the AML program. Because AML/BSA affects multiple areas of a bank, there is a trend of combining the AML and fraud departments. The integration of the two departments increases the risk monitoring of banks and enables collaboration for detection (Gasper, 2016). Considering the regulatory move to personal liability of compliance officers for negligence, timely and accurate suspicious activity reports (SARs), and currency transaction reports (CTRs) are even more crucial (Brown-Hruska, 2016). The most successful AML/BSA programs exist in environments where senior management supports the program down to the employees (Gasper, 2016). The AML/BSA officer cannot manage all aspects of the program alone.

Transition

The purpose of this qualitative multiple-case study was to explore past AML strategies and current bank compliance officer's strategies to enable the development of upgraded AML compliance programs, technology, and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profits. The emphasis of Section 1 was the introduction of background and foundational information as it related to the topic and problem statement. I used Peer-reviewed sources in the literature review and analysis to analyze AML compliance program strategies, the legal requirements, the impact of non-compliance, and the new laws recently enacted that

affect AML compliance using the elements of the fraud management life cycle theory. In Section 2, my role as the researcher, the participants involved in the research, the research methodology, and the participant population were examined. How the data collection and data analysis process contribute to the reliability and validity of the study was explained. In Section 3, the findings of the study were presented as they relate to the research question. The themes revealed amongst the participant's responses to semistructured questions reveal considerations for future strategy enhancements to reduce money laundering and terrorist financing threats to protect competitive positioning and profits. The study concluded with a discussion of the findings regarding implications for social change, recommendations for action, suggestions for further research, and my reflections on the research study.

Section 2: The Project

Purpose Statement

The purpose of this qualitative multiple case study was to explore past AML cases of penalized banks and interview current bank compliance officers about their strategies to upgrade their AML compliance program, technology, and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profits. The targeted population was an estimated nine bank compliance officers within the United States-Mexico-Canada (USMCA) Trade agreement, formerly known as the North American Free Trade Agreement (NAFTA) who have demonstrated success at developing and maintaining AML/CFT compliance programs to combat financial crimes and protect financial systems per the Financial Action Task Force (FATF) 40 recommendations (FATF, 2008). The implications for social change include better educated bank compliance personnel, improved monitoring, and enhanced employee training to reduce illicit and fraudulent financial activity that threatens banks financial systems. Stricter compliance may also improve profitability because of fewer regulatory fines, reduced terrorist threats, reduced drug money repatriation to source countries, in turn weakening cartel operations. Increased tax revenues from greater enforcement may improve employment and societal infrastructure and developments leading to more prosperous and safer communities.

Role of the Researcher

The researcher was the point of data collection in a qualitative study. The sources of data vary, creating methodological triangulation. In the case of this study, the sources

of data were semistructured interviews, documentation examination, and case study review. The researcher was an impartial, external observer and recorder of the participant's experiences. The phenomenon was explored through the personal lens of the researcher and uses collective data from all the sources mentioned above (Collins & Stockto, 2018). Themes emerged during the analysis of the data that may enable better business strategies and processes for compliance officers.

I have worked in the threat finance career field since 2005 as a forensic accountant with the Federal Bureau of Investigation (FBI) and an intelligence analyst with the Department of Defense. My experience provides an in-depth appreciation for what happens when a financial system's vulnerabilities are abused. Observing the impacts of threat finance inspired me to learn what could be done by the community to better protect financial systems. I have working relationships and a professional network that includes others in the same profession to include gatekeepers.

The Belmont Report protocol was written to ethically protect human research participants. It has three components; respect, beneficence, and justice (U.S. Department of Health & Human Services, 1979). This study falls well within the definition of research, as conclusions were drawn and findings will hopefully contribute to generalizable knowledge. As the researcher, I committed to protecting the beneficence of the participants; accepting their decisions, doing no harm, and doing my part to secure their wellbeing (U.S. Department of Health & Human Services, 1979). Informed voluntary participation will be enforced as defined by making the participants aware of

the research procedures, their purpose in the research, and the anticipated benefits (U.S. Department of Health & Human Services, 1979).

It is impossible to remove all bias from the study. However, I endeavored to remove bias during the planning and design of this study by exercising reflexivity (Mackieson et. al, 2019). Reflexivity substantiates rigor in a study because the researcher's actions during the collection and analysis of data are communicated transparently (Mackieson et. al, 2019). According to Mackieson et. al, (2019), methodological triangulation and data saturation aids in increasing rigor and decreasing bias. Bias mitigation was also enabled by the standardization of the semistructured interview questions asked of all participants (Lakshminarayan, 2016). Interviews were recorded and transcribed verbatim.

Interview protocols are defined guides to evaluate study designs. The interview protocol refinement (IPR) framework is a tool used to enhance semistructured interviews (Yeong et al., 2018). The four phases of IPR include ensuring interview questions align with the research question, constructing an inquiry-based conversation, receiving feedback on interview protocols, and execute the interview protocol to test it (Yeong et al., 2018). The last two phases refine the protocol, strengthen the protocol reliability and potentially improve the quality of data obtained from participants (Yeong et al., 2018). They were designed to identify key participant background and contextual information.

Participants

Participants must meet the criteria defined by the research question and or specific business problem to remain within the study's scope. The criteria for the population for

this study consists of bank compliance officers from the United States, Canada, and Mexico who have implemented AML strategies. Participants were AML compliance officers with experience implementing AML compliance programs or have access to unique rich data. Most participants are members of the Association of Certified Anti-Money Laundering Specialists (ACAMS), a professional, nationally recognized organization. There was an intent to have at least two compliance officers from the respective countries. According to the Walden DBA rubric (2021), it was acceptable to use members of professional organizations, trade affiliations, or company rosters. The sampling of participants for this study came from a membership listing of the ACAMS because members must maintain professional knowledge on the topic. Members are professionals with specialized training and certifications related to fighting money laundering. According to Natow (2020), interviewing banking elites can add crucial data to studies exploring public policy due to their positions and experience. Attending a virtual conference with ACAMS confirmed the concept of elites having value-added information. The new anti-money laundering act of 2020 (AMLA20) enacted on 1 January 2021 is a public policy that is directly relevant to my study (ICBA, 2021) was discussed extensively. Some of the presenters at the conference were aware of and responsible for implementing the new law. Participant interviews were an essential source of data collection, elevating the importance of the section.

Scholars must have a strategy to gain access to participants. Establishing a working relationship within a professional organization is enabled by membership and conference events (DeJonckheere & Vaughn, 2019). Members typically network at these

events and often discover opportunities to collaborate on projects. I plan to use my memberships in two professional associations to gain access participants. Existing working relationships with some members will enable the use of my network and afford meeting other members.

The participant's responses potentially substantiate the data collected during the literature review. The participant's responses reflect the fieldwork of the academics, adding validity and consistency. The literature review and the participants' responses enable the scholar's progression toward methodological triangulation. Methodological triangulation uses multiple sources to strengthen the validity of one's research (Yin, 2018).

Research Method and Design

Research Method

I used the qualitative method to explore bank compliance officers' strategies to discern missing or misaligned components of the bank's money laundering compliance programs, technology, and procedures. The objective of the qualitative methodology is to demonstrate how characteristics of individual experiences that cannot be quantified aid in understanding phenomena (Queiros et al., 2017). Compliance officers are elite banking staff who possess unique information because of their position. Interviews with these banking elites will add credibility and validity to this study because they have access to information that is not common knowledge about their respective compliance programs. This study intends to refine or discover new enhancements that can supplement current strategies used by bank AML compliance officers to protect their institutions (Queiros et

al., 2017). Analysis of bank compliance officers' interviews who must consider the requirements of the new AML law of 2020 may reveal strategies to upgrade and implement into AML compliance programs, technology, and procedures. The quantitative methodology uses deductive reasoning and preconstructed standardized instrument to collect data to determine outcomes, generalize, detect cause and effect (Yilmaz, 2013). In this study, I am not collecting data to test generalized hypotheses. The time constraints of this study do not allow for mixed methodology approach. Therefore, qualitative methodology's inductive reasoning is the best approach for this study.

Research Design

I chose a multiple case study design to analyze the development and implementation of AML compliance programs. Detecting themes across numerous cases substantiates objectivity in the observations and interpretations of the study (Gustafsson, 2017; Stake, 1944). Data triangulation affords the researcher a deep understanding of the topic resulting from exploration across multiple sources (Crowe et al., 2011). I will interview compliance officers to investigate their respective strategies to implement AML compliance programs in their affiliated banks. Participant interview responses, reviews of bank AML cases, AML regulations, and requirements will be analyzed and coded to discover themes that may enhance the existing programs' abilities to protect the banks' profits. Ethnography is associated with observing participants in their natural environment (Queiros et al., 2017; Saunders et al., 2016). I did not choose the ethnography design because an opportunity to observe AML compliance officers establish or implement AML compliance strategies was unavailable. In narrative analysis,

the participants' experiences are used to analyze the precursors and results of the actions taken (Yin, 2017). I did not choose narrative analysis because this study focuses on compliance officers' strategies to implement AML programs, not the predicate crimes that occur beforehand or the penalizations dispensed to offenders.

Data saturation will be recognized by analyzing data about each bank and by repeating participant responses to research questions across multiple banks (Thorne, 2020).

Population and Sampling

The population for this study consists of bank compliance officers from the United States, Canada, and Mexico who have implemented AML strategies. Purposive sampling, also called judgmental or subjective sampling, is used to select the participants and explore strategies to improve AML compliance programs. Participants chosen for purposive sampling are experienced experts who possess or have access to unique rich data. Most members of this study are members of ACAMS, a professional, nationally recognized organization. To a small degree, cluster sampling is used because there is an intent to have at least two compliance officers from the respective countries. Both purposive and cluster sampling are time and cost-effective (Berndt, 2020; Eitikan & Babatope, 2019). However, researcher bias may creep into participant selection when using purposive sampling, and cluster sampling may include sampling errors due to access to participants (Berndt, 2020; Eitikan & Babatope, 2019).

This multiple case study includes nine participants; however, a definitive number of participants is not required. Initially, the researcher's desire to accurately reflect the

population influences the number of participants. Ultimately, the number of participants in the study is secondary to the realization of data saturation. Saturation signifies the researcher has confidence that further data collection will not reveal new information (Thorne, 2020). The researcher conveys validity and credibility to the study by documenting data saturation. Data saturation is reached during data collection, and repeated data is recognized (Saunders et al., 2018; Thorne, 2020). Priori thematic saturation is reached when no new themes are revealed during interviews, and no additional codes are required during analysis (Saunders et al., 2018). After transcribing interviews, I will review and analyze the coded data collected and other documentation to confirm data saturation.

I will attempt to conduct interviews in a setting that is safe and comfortable for the participant. Health concerns of COVID impacted the ability to conduct face-to-face interviews. Conducting interviews via phone or Zoom allows participants to control their environments. Participants will also select the timing of the interviews to facilitate minimal interruptions for 45 minutes to an hour. These actions are taken to ensure the participants are in a comfortable setting that may result in their willingness to share a maximum amount of information (Nayak Prasad & Narayan, 2019).

Ethical Research

According to Vanclay et al. (2013), the researcher's primary responsibility was to protect the safety and welfare of the participants of the study. The Department of Health, Education, and Welfare issued the Belmont report in 1979. The Belmont report focused on three ethical principles: respect for people/the participants, protecting the welfare of

the participants, and equitable selection of participants (Artal & Rubenfeld, 2017; Vanclay et al., 2013). The Belmont Report and the National Research Act are among the foundational resources that inspired today's human research guidelines to include informed consent, review and approval of an ethics committee, inducements to participate, confidentiality, and compensation for participation in research (Artal & Rubenfeld, 2017). Before contacting potential participants, Walden Institutional Review Board's (IRB) reviewed my study. I have aligned my research with Walden IRB's guidelines for this ethical research. The IRB approval number is 11-12-21-1001885.

Respect for participants and informed consent are the foundational principles that all others evolved from (Vanclay et al., 2013). Prior to interacting with participants, researchers must understand their responsibilities in the process (Vanclay et al., 2013). As a researcher, I am obligated to provide a clearly written informed consent form to each participant. Within the consent form, a declaration that no financial payments were available for participation in the research was clarified. I also advised the participants that they could freely and with no obligation withdraw from the study by submitting a written request such as an email. For those participants who choose to contribute, their identities were obfuscated using a code to relate to each participant. Participants were referred to as participants 1, 2, or, as high as needed. For those contributing participants, there was a specific permission required to record the semistructured interviews. This permission was requested in the consent form (Vanclay et al., 2013).

Data must be safeguarded to prevent unauthorized access (Vanclay et al., 2013). I will maintain all data collected from participants and other data sources used in the study

for 5 years. The semistructured interviews with open-ended questions was recorded and transcribed verbatim. I secured the digital recordings and the recorder, documented transcriptions, and reviewed case studies in a fireproof safe box to ensure the identity protection of the participants. The digital records were encrypted, after 5 years recordings will be destroyed, the external hard drive erased, and the hard copies shredded.

Data Collection

As the researcher conducting the participant interviews, I am the primary data collection instrument. I used the secondary data sources of prosecuted AML case studies, international standards, domestic regulations, and the newly implemented AML law of 2020 supplementing the interviews to demonstrate data triangulation. Comparing findings from different types of data sources aid in removing limitations, adding validity and credibility to the study (Gnyawali & Song, 2016). Semistructured interviews were the primary focus of the collection. Interviews afford the participants and opportunity to provide clarification to their responses to prescribed questions. Open-ended questions invite openings to explore topics that arise spontaneously from the participant's response (Arsel, 2017). Wachovia and Ocean Bank of Miami AML cases analyzed compliance officers and their executed strategies in their professional environment. Comparative case studies and process tracing are often used to research crime and improve institutional analysis (Skarbek, 2020). The Egmont Group sets international AML standards that are implemented by member countries, ultimately impacting domestic regulations. The compliance officers' strategies to implement AML compliance programs for all banks are responsive to the requirements of domestic regulations and laws. The newly implemented

AML law codified new requirements that must be implemented by designated time frames. Well-developed interview protocols create the probability of obtaining comprehensive data within the time allotted (Yeong et al., 2018). Having an interview protocol facilitated avoiding unexpected circumstances such as deviations from the topic. My interview protocol includes 11 reviewed and approved questions, explained the proposed interview process, and was designed to be executed in approximately an hour. The interview questions were in alignment with the research question. The protocol is included in Appendix A.

Data Collection Technique

I intend to use semistructured, open-ended questions to answer the research question of “what strategies do some compliance officers use to develop, implement, upgrade AML compliance program technology and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profit?” I will interview participants via phone and zoom in accordance with protocol as the main data collection tool in this study. The dangers of COVID impacted the ability to conduct face-to-face interviews. Zoom meetings facilitated participant comfort, convenience, and safety. Participants controlled their respective interview environments. Online surveys are also COVID friendly because they can be created online, the sample population can be reached, and responses can be stored (Nayak Prasad & Narayan, 2019). However, the online surveys do not allow for the participants to convey their life experiences or unique knowledge, there is no guarantee that all invited participants will participate, and confidentiality becomes more challenging. Therefore, an online survey was not used for

this study. Focus groups in comparison to individual interviews take longer to execute, are more difficult to schedule, require more data collectors (Guest et al., 2017).

Individual interviews are preferred because they are time efficient for this study. A pre-approved list of open-ended questions will be posed in the same order to each participant. The questions are listed in Appendix A of the study. To put participants at ease, the researcher should explain the circumstances of the interview, confirm that there are no right or wrong responses, and that they can take their time answering (Arsel, 2017). The same transcript will be read to each participant before and after each interview; offering a note of thanks for participating in the study prior to each interview, advise of the approximate time commitment, and to request for any additional information the participants wish to share that was not covered in the interview. An interview guide ensures the researcher will remain consistent in data collection from all the participants (Arsel, 2017). Follow up questions will be asked for clarification according to the participant responses.

Each interview will begin with a formatted note of thanks, explanation of the purpose of the study, and a confirmation of permission to record the interview to enable transcription. Notes will not be taken during the interview to facilitate full attention to the participant's responses. Giving full attention to the participant's responses permits opportunities to ask follow-up clarifying questions. Verbatim transcription will follow the interview. Transcriptions will be labeled with predetermined codes for the participants. Transcriptions will only be maintained on a password protected external hard drive. When not in use the hard drive will be secured in a locked fireproof box. Once all

interviews have been transcribed. They will be analyzed summarily to discover and document patterns and the point of data saturation. Data saturation will be acknowledged when no new themes are apparent.

Data Organization Technique

Coding is an analysis tool for researcher to translate the raw data from multiple participants into an intelligible report highlighting themes across the group of participants summarily (Linneberg & Korsgaard, 2019). Coding aids the the researcher in dissecting the data and analysis to reveal the most important information. Codes were assigned to the respective participants to obfuscate their identities and protect their privacy. After analysis is complete, all the articles and files related to the research are stored in a password-protected file on a fingerprint protected database while research is occurring. Before interviewing the respective participants, an informed consent and a special permission will be obtained to record each session. The recordings, recording mechanism, and the transcriptions which will be maintained on a password protected external hard drive and locked in a fireproof box for 5 years. At the 5-year point the recordings will be destroyed, the external hard drive erased, and the hard copies shredded.

Data Analysis

I research AML compliance from four viewpoints. The data sources are semistructured interviews, AML prosecuted cases, compliance regulations, and the AML laws of 2020 formed the basis of data and methodological triangulation. Data triangulation collects information from different sources at different times (Renz et al.,

2018). The semistructured interviews where the researcher is the data collection instrument, the review of archival documents on prosecuted cases, and analyzing publicly available documents on AML regulations and the new AML laws of 2020 are components of methodological triangulation. Triangulation is a strategy for validation (Dzwigol, 2020). I used a combination of methods to expand the understanding of AML compliance implementation strategies.

An interview protocol will be used to ensure all participant interviews are conducted uniformly and reduce research bias. The protocol is shared in Appendix A of the study for reader reliability. Additionally, the questions listed within the protocol were reviewed and approved by the university as appropriate.

The transcription analysis process has five steps (Renz et al., 2018). Categories will be identified based on the transcriptions, followed by developing an analytical codes guide from the categories. The code guide is used to assess all transcriptions, each interview is to be summarized as a case study founded on the coding guidelines, and all cases are considered when determining if there are patterns. The categories and codings will be defined in a table to enable the reader's understanding of the material's application, transparency, and validity. Each verbatim transcript will be read repeatedly for categorization.

Transcribing the semistructured interviews entails the transcriber/researcher, the notation system, the transcript itself, and the transcript readers (Renz et al., 2018). In this case study, the notation systems will be an Olympus recorder, the recorder function of Microsoft Word, and when interviews are conducted via Zoom, the sessions will be

recorded. The transcript is the pictorial representation of the interview between the data collector and the participant. Once the transcriptions are completed, the analysis of the information begins.

There are five stages of data analysis (Yin, 2017). The analytical techniques used in this study were influenced by the research question/the research objective, the data sources, time constraints, and the number of participants (Renz et al., 2018). The research question was to determine what strategies compliance officers use to develop, implement, and upgrade AML compliance program technology and procedures to reduce money laundering and terrorist financing threats to protect competitive positioning and profit. An analysis of the verbatim transcriptions will be conducted by categorizing and coding the data from each interview, followed by analyzing the categories and codings for patterns. This process enables the identification of similarities and differences between transcripts. The time constraints of this study did not allow for a mixed study. Operational data saturation will be evident based on the higher frequency of codes in the earlier interviews as opposed to fewer new codes identified in later interviews (Forero et al., 2018). The plan for this study includes nine participants; however, the point of data saturation can only be recognized after reviewing the data.

Reliability and Validity

Rigor in research means delivering comprehensive and accurate data resulting in a quality product. Reliability and validity typically refer to quantitative research, however in qualitative research, the terms facilitate rigor (Hayashi et al., 2019). Reliability is demonstrated by the consistent application of methodologies and the ability to replicate

findings. Following an interview, the protocol makes the process consistent, transparent, and makes the process repeatable. More often, the findings of a study can be repeated, the more reliable the study becomes. Validity in research is associated with the accuracy and the authenticity of the findings (Cypress, 2017). I will exhibit validity by using triangulation to confirm the authenticity of the findings, producing verbatim transcriptions that will exhibit accuracy, explaining analysis decisions using coding. Credibility, confirmability, dependability, and transferability are components of trustworthiness, a synonym for rigor in qualitative research (Cypress, 2017; Hayashi et al., 2019).

Credibility

Achieving data saturation is a vote of credibility because it demonstrates that several respective participants had similar experiences (Flynn et al., 2019). Supplementing the findings' reporting with direct quotes from participants offers a degree of transparency while substantiating the credibility (Anderson, 2017). Using analytic categories while providing the reader a definition of the categories adds to the credibility of the research. I plan to interview nine participants in this study to reach data saturation. The respective interviews will be transcribed verbatim. I will apply categorization and coding to the transcriptions as a part of the analytic process.

Dependability

Dependability is established by the researcher describing in detail how the data collection and analysis were accomplished (Stenfors et al., 2020). I demonstrate dependability by documenting the research design, the data collection process, and the

analysis process. I also used triangulation to exhibit dependability. Triangulation of data sources and methodology substantiates the existence of the information.

Confirmability

Confirmability is associated with replication. Confirmability is the verification that other researchers would come to similar conclusions with the same data (Korstjens & Moser, 2018). This study will include a table with detailed descriptions of the determined categories and developed coding used to analyze transcripts. The inclusion of these analytical tools will facilitate other researchers' understanding and replication of this study. The category and coding tables serve as templates for replication.

Transferability

Transferability refers to the ability of others external to the study to understand the applicability of the concepts (Flynn et al., 2019). This study is focused on the implementation of AML compliance in banks. AML Compliance is required in all financial institutions as defined by FATF. Therefore, the concepts and discoveries revealed in this study are potentially transferable to other financial institutions in various industries. Examples of other financial institutions are casinos, jewelry dealers, auto dealerships, etc. All of these financial institutions have compliance officers.

Transition and Summary

The purpose of this qualitative multiple case study was to explore strategies that compliance officers used to develop, implement, upgrade AML compliance program technology and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profit. Section 2 focused on the details of the study

design, including the research methodology and the participant population. I described how I used data collection and analysis to accomplish reliability and validity within the study. In Section 3, the findings of the study are presented. The themes revealed amongst the participant's responses may suggest considerations for future research. I conclude with a discussion of the findings regarding implications for social change and recommendations for action.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore past AML cases of penalized banks and interview current bank compliance officers about their strategies to upgrade their AML compliance program, technology, and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profits. The study's population consisted of BSA/AML compliance officers from six banks within the United States, Mexico, and Canada. The criteria for study participants were banking elites that had or have experience as a BSA/AML compliance officer. The participants and their interviews are identified as participants 1 through 6, respectively, to protect their identities.

Section 3 includes the results of the data analysis. I discuss the correlation between the conceptual framework, the literature review, and the interviews which resulted in three emerging themes. In Table 1, participant's titles, I listed years of experience, and the size of their respective banks. Table 2, emerging themes, list the themes revealed through analysis.

Table 1*Participant Titles, Experience, and Institutional Size*

Column1	Title	BSA Compliance Officer Years of Experience	Size of Institution Financial	Size of Institution 2 Human
Participant 1	BSA/AML program manager and Deputy BSA officer	16	\$18 Billion In top three US Banks_Bank1	
Participant 2	Global Head of dispute and prepaid operations	11	In top 5 US Banks_Bank2	200,000 employees_Bank1 70,000_Bank 2
Participant 3	President_Senior business risk and control senior associate	6.5	within top 3 or 4 US Banks	
Participant 4		4	1.7 trillion, one of Big 5 in Canada	
Participant 5	VP, Financial Crimes Compliance_Bank 1 SVP, Risk & Control Manager (BSA/AML, OFAC & Fraud)_Bank 2	14.5	\$20 billion_Bank 1. \$160 billion_Bank 2	2 to 3,000_Bank 1
Participant 6	Deputy BSA director	17.5	\$28 billion	

Table 2*Emerging Themes*

Themes	Number of Participants	Times the Theme was Addressed
Effective internal and external communications	6	88
Enhanced human/technological collaboration	6	184
Consistent compliance training	6	79

Data Collection

I used the qualitative research method and a multiple case study design to answer the primary research question of *What strategies do some compliance officers use to*

develop, implement, and upgrade anti-money laundering compliance program technology and procedures to reduce money laundering and terrorist financing threats and protect competitive positioning and profit? I collected data by conducting semistructured, Zoom-recorded interviews with banking elites using 11 open-ended questions. The interviews were transcribed verbatim, and member checking by the participants confirmed approval and offered an opportunity for clarification of statements. Thirty-three email invitations were extended, with eight accepting. One participant withdrew due to illness, and another withdrew without explanation, resulting in an 19% interview acceptance rate. Data saturation occurred by interview four. No new themes were revealed, neither was additional coding required for interviews 5 or 6. An interview protocol and participant review were used to mitigate research bias.

I manually coded and categorized the themes and subordinate themes of the findings and correlated them to the fraud management lifecycle theory components and the strategies of effective AML compliance programs (Axelrod & Ross, 2012; Wilhelm, 2004). In Table 3, analysis, I present the data collected from responses to 11 open-ended questions, which are documented in an interview protocol (Appendix A).

Table 3

Analysis

Column1	Communication		Technology		Testing & Validation Frequency		Training	
	External	Internal	Internal	External	Risk Assessment	Audit	Internal 2	External 3
Participant 1	X	X	X		Annually	Through out Year	X	ACAMS
Participant 2	X	X	X	X	Annually	Through out Year	X	ACAMS
Participant 3		X	X	X		Annually	X	ACAMS
Participant 4	X	X	X			Annually	X	ACAMS
Participant 5	X	X	X		Annually	Through out Year	X	ACAMS
Participant 6	X	X	X		Annually	Through out Year	X	ACAMS

Presentation of Findings

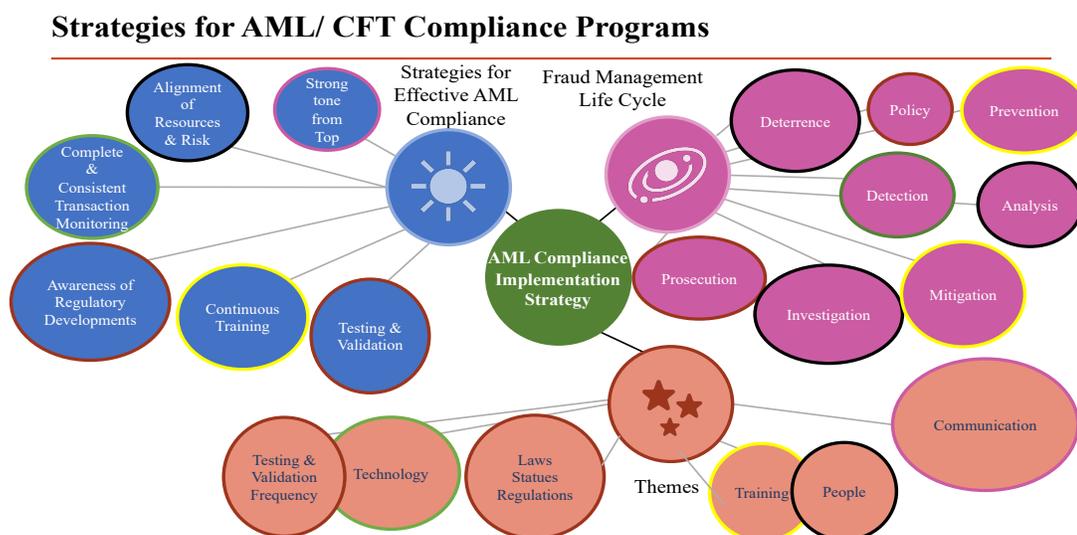
The findings of this study reflected emerging themes of effective internal and external communication, enhanced human/technological collaboration, and consistent compliance training that BSA/AML compliance officers use to implement their respective compliance strategies. The same three themes offer opportunities to improve AML compliance programs. The data also affirmed content within the literature review that the financial size and geographic footprint of banks influence the use of communication, training, and technology (Dolar & Shughart II, 2012; Naheem, 2019). Bank's CIP is an example of how technology and processes were influenced by size. I also reviewed the internal Financial Crimes Risk Management Policy document from one of Participant 5's banks, which included the bank's AML compliance program.

The conceptual framework is the fraud management lifecycle theory, which has eight components. According to Axelrod and Ross (2012), there are six essential components to an effective AML compliance program. In diagram 1, conceptual framework and strategy, I compared the emerging themes of effective internal and external communication, enhanced human/technological collaboration, and consistent compliance training revealed in the data collection, to the aforementioned foundational concepts of the study. Diagram 2, correlation of conceptual framework, demonstrates the

connectivity to the emerging themes revealed in the study. For data triangulation, peer-reviewed literature, official government documents, and participant interviews were used. The following subsections detail how the data from the three sources address the central research question.

Figure 1

Conceptual framework and strategies

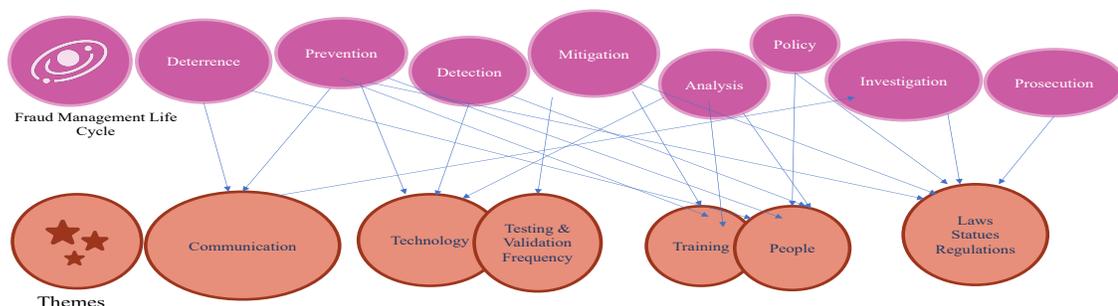


Note: The outer ring color denotes connecting patterns between the fraud management life cycle, the strategies for effective AML compliance and the emerging themes.

Figure 2

Correlation of conceptual framework

Themes Connectivity to Conceptual Framework



Note: The lines depict connectivity.

Emergent Theme 1: Effective Internal and External Communications

Communication was one of three emerging themes prominent during data collection. External and internal communication are essential to the strategies of AML compliance implementation. External communications with law enforcement, government regulators, and peers inform and are sources of guidance to compliance officers in their design and implementation of AML compliance strategies. Internal communications proliferate the dissemination of bank's board of directors or by delegation, the BSA compliance officers' expectations for AML policy adherence, facilitates human/machine collaboration to implement AML strategy, and advises compliance staff of training requirements and opportunities. There was a consensus among all the participants that their respective bank's board of directors were ultimately responsible for AML compliance. Participant 1 stated that "our Director of the AML operations or BSA officer" was responsible for the maintenance and upgrading of their AML/Counter threat finance compliance program. Participant 5 added that "ultimately

it's the board of directors and senior management are responsible...they just delegate that authority to the BSA officer.” According to Participant 2, “the board of directors is required to approve AML policies and communicate them to the organization.” Bank 6’s policy states that, “Management is responsible for verifying that all applicable employees within their units are appropriately informed of the AML Program requirements and trained to perform their responsibilities accordingly.” BSA compliance officers implement AML programs that must address regulatory requirements, transpiring trends, and quickly evolving technological advances to reduce AML/CFT threats, to protect competitive positioning and profits. Table 4, external and internal communication, below represents the first theme supported by 6 data sources referencing the topic at a minimum of 20 times.

Table 4

Communication Themes

Communication Themes	Number of Participants	Times the Theme was Addressed
Law Enforcement	5	25
Government/Regulators	4	17
Peers	2	11
Internal	6	20

External Communications

External communications inform, are collaborative forms of training and deliver regulatory notifications. A preventive external communication is the reception of advisories from governmental and professional agencies. According to Participant 5, these advisories “provide daily notifications of legislation changes, warnings of emerging criminal trends, and industry responses.” Participant 6 stated, “from the regulatory side, we receive anything that's slightly updated, or recommended or kind of just be on the lookout for.” Bank personnel are cognizant that any changes to their AML compliance programs must be justified and comply with older processes and systems.

Discussion among similar-sized/peer banks contribute to the prevention of one's bank being vulnerable to trends and or scams occurring in the same geographical footprint resulting in a potential profit loss. Participant 6 stated “we receive information from both our local peer banks about maybe typologies or things that they see through their examinations, as well as what law enforcement is actively seeing from a criminal investigation side.” According to Participant 2, “the big four banks generally talk to each other, you know, and five through 10 generally talk to each other.” When criminals realize one bank is not instituting a defense to an emerging crime, they are drawn to the institution to take advantage of the circumstances until a defense mechanism is implemented. There is a financial cost and loss of profit for the bankers who were the last ones to implement a defense.

External communications with law enforcement can be preventative and supportive of investigations. Participant 1 said “I've actually hosted meetings with law enforcement to understand the trends and which are going on right in our area.”

According to Participant 6, “relationships with law enforcement are probably the most valuable because we're getting direct information of what they see in cases they're prosecuting.” Compliance officers are encouraged in Section 6306 of AMLA 2020 to cooperate with law enforcement (Congress, 116th, 2021; Guidehouse, 2021).

Correlation to the Conceptual Framework

Planning, communicating the existence of, and implementing an AML compliance program is an act of deterrence and mitigation (Tomlinson, 2016; Wilhelm, 2004). Communication overall supports the deterrence, prevention, and investigative aspects of AML compliance, three elements of the fraud management life cycle theory (Merriam-Webster, n.d.; O'Sullivan, 2017; Wilhelm, 2004). Regulator feedback serves as a mitigating factor because it makes corrections or adds supplements to the compliance program to bring it to the appropriate standards. Banks communicating within coalitions with similar sized banks in the same geographic footprint, is a deterrent to illicit actors and enables preventive measures. Communication with law enforcement is preventative and most likely reduces potential investigations.

Correlation to the Literature

The board of director's obligation to inform all employees of AML policy is in alignment with a strategy of successful AML compliance programs; internal communications send a strong tone from the top (Bock, 2020). Bank 6 policy states, “Any changes to internal policies, procedures, and processes will be communicated to the appropriate employees and covered during training.” Communications between banks, law enforcement, and the receipt of governmental, advisories confirm a finding in the

literature review. The intelligence and national security alliance (INSA) proposed a fusion center's development to enable two-way communication between the government and private sector industries who share the responsibilities of protecting the financial system (Financial Threats Council, 2020). FinCEN has been encouraged to communicate with private sector, particularly law enforcement, since 2017. The collaboration allows both sides to be informed about the observations of activities occurring in the respective areas that could potentially advance the actions of investigators for both the banks and law enforcement (Eaton, November/December 2021). Sections 6211 and 6214 of the newly implemented AMLA 2020, embedded within the national defense authorization act (NDAA), highlighted the importance of these types of communications by expanding the scope and codifying the requirement for international collaboration and communication among private sector, FinCEN, government agencies, and the intelligence community using new technologies (Congress, 116th, 2021; Guidehouse, 2021).

Internal Communications

Internal communications facilitate the dissemination of a tone from the top of the organization, the release of new or updated regulations, and new procedures. Successful compliance officers of today have learned from HSBC's example of how a failure to communicate internally proved costly to the bank as documented in the case of the United States versus HSBC statement of facts. HSBC did not have a formal process for sharing did not have a formal process for communicating horizontally across its affiliates (Buchanan & Zabala, 2017). Information was reported up to executives, who decided what to disseminate amongst its global affiliates. From 2002 to 2010, HSBC Mexico

reported its AML problems up to senior executives, including the CEO, Head of Compliance, Head of Audit, and Head of Legal but did not inform HSBC Bank USA of these problems and their potential impact on HSBC Bank USA's AML program resulting in a \$2 billion fine and a deferred prosecution with US authorities in December 2012 (Buchanan & Zabala, 2017).

Participant 1, stated “factors that could impact our AML programs such as data, staffing, documentation... from there we review any controls policies, procedures, across the institution.” This review of policy was used as an internal communication across the bank as a mitigating act to inform compliance staff of officially acceptable procedure to reduce risks. Participant 1 went on to state, “we review and report trends up to our BSA committee which is like our oversight board. And from there, we also look at any quality control reports, any quality assurance findings to identify additional gaps in monitoring and the end the transaction monitoring system.” In this case, internal communications were used as tool of analysis to detect vulnerabilities and build stronger defenses against money laundering for the bank.

Correlation to the Conceptual Framework

Internal communications support deterrence, prevention, and investigation (Wilhelm, 2004). The CIP, CDD, and ongoing monitoring comprise KYC and are mandated internal communications (Dept of Justice, 2001). CIP make it difficult for illicit actors to open bank accounts. CDD addresses the nature of the customer relationships, funding flows through accounts, and routinely updates customer information (Federal

Financial Institutions Examination Council, 2018). The combination of KYC communications facilitates the identification of suspicious activity that may result in a potential investigation. These tools also enable banks to provide evidence to officials for prosecutions.

Correlation to the Literature

Participant 1 stated that:

we use the machine learning, but there's still that human component that has to make the decision. Because at the end of the day, we still have to explain it to the examiner. The machine is making the decision. We need to understand why it is making that decision.

Participant 1's internal communication between compliance staff and machine confirmed the proposal that artificial intelligence and machine learning must be monitored by compliance staff with financial crime and regulatory background to fine-tune the algorithms and develop the tools (Fruth, 2018). Participant 1's explanation of why compliance staff must be able to explain machine decisions to examiners is in alignment with Jullum et al. (2020), proposal that money laundering cases were run through a supervised machine learning model to detect money laundering. The model adapted and learned as transactions were processed. Participant 1, Fruth, and Jullum demonstrated the need for human and technological collaboration.

Emergent Theme 2: Enhanced Human/Technological Collaboration

Technology plays an essential role in the design of AML/CFT strategies.

Participant 6 stated, "there is nothing we do that doesn't involve some type of technology,

whether that's data collection at the front end, or monitoring at the back end.” According to Participant 4, “strategies drive the implementation of best technology evolutions into AML compliance programs to respond to environmental changes such as the COVID pandemic, PPP loans, and unemployment fraud payments.” Section 6211 of AMLA 2020 described the creation of a "global symposium to promote greater international collaboration on using new technology to prevent, detect, and investigate financial crime and other illicit activity" (Congress, 116th, 2021; Guidehouse, 2021).

It is not a coincidence that technology supports the deterrence, detection, prevention, mitigation, analysis, and ultimately investigation components of the fraud management lifecycle. All study participants acknowledged using technology to mine data, conduct trend analysis, and automate transaction monitoring systems. Participant 2 stated that “AML compliance staff coordinate with monitoring and surveillance teams to create/develop models and bots that produce increasingly better results based on historical adjustments, enabling analysis.” Based on current trends, adjustments to the models can be applied rapidly and frequently. These automated transaction monitoring systems are periodically, typically annually, validated. According to Participant 6, “Their technology requires at least an annual review, every single procedure has to have eyes on it for review for updates, is it, are we actually doing what we say we're doing other things that need to be updated.” There was a consensus that larger banks had their transaction monitoring system validated internally, and external third-party auditors validated smaller banks. Participant 6 said, “smaller banks would typically have like an independent

auditor do an assessment, most larger banks have in house audit but it's still completely independent.” Ocean Bank demonstrated a vulnerability of smaller banks.

In 2003, Ocean Bank implemented an automated account monitoring system. However, the system only monitored 15 percent of the Bank's total accounts. More than 97,000 accounts were monitored manually. By 2006, Ocean had a backlog of more than 100,000 alerts generated by the monitoring system. Ocean Bank did not periodically review and update their monitoring systems' filtering criteria and thresholds, rendering them ineffective. The monitoring system's programming, methodology, and effectiveness were not independently validated until 2009 (Freis, 2011).

According to Participant 4, cost, backward compatibility, and polluted data pools/lakes are restrictions to the use of technology. Participants 1, 4, and 5 agreed, smaller banks cannot afford to implement artificial intelligence and machine learning; therefore, they are not as technologically advanced as large banks. Large banks can afford it but are challenged by 5-year budgets and a need to purchase new expensive technology immediately. Participant 5 stated that “one of the biggest gaps in the anti-financial crime space is just all the smaller institutions not getting what they need to do their job and the bad guys that were right there leaving Chase. They're going to send the \$500 million thru Community Bank because guess what, I can send money to South America, because fees and the bank loves it and see it happens all the time.” Technology evolves quickly, and the new innovations are not backward compatible. Lastly, acquisitions and mergers routinely occur in the banking industry, the data pool/lakes are

polluted. Polluted data could present date of birth as day, month year, or month day year. A street could be a street number, street name, street identifier, or all on the same line. According to Participant 4, banks would need technology that could clean the data pool/lake without discarding data it could not process. Additionally, it would require a substantial level of effort to human resources review the data for accuracy. No matter the level of effort required, specialized training is required. Table 5, technological themes, represents the second theme supported by 6 data sources referencing the topic at a minimum of 14 times.

Table 5*Technology Themes*

Technology Themes	Number of Participants	Times the Theme was Addressed
Data	6	48
Annual review	5	60
Staff	4	14
Transaction/Monitoring	3	38

Correlation to the Conceptual Framework

Enhanced/human technological collaboration supports six of the eight components of the FMLT. Technology enable CIP and CDD, two of the first deterrence factors for criminals attempting to create accounts with false identifications. CIP and CDD are also preventive tools used to hinder illicit actors from obfuscating the identification of beneficial owners in relation to shell and or front companies. Artificial intelligence, big data analytics, machine learning, cloud platforms, and natural language generation (NGL) ongoing monitoring accelerate detection of suspicious activity (Katkov, 2019). Technology improves accuracy, efficiency, and speed within the human/technological collaboration. Machine learning does not evolve without human intervention.

There are five mandatory components to all AML compliance programs, implementation of an independent audit test procedures is one of them. This is how human/technological collaboration supports mitigation. Auditing a financial system is intended to alleviate ongoing illegal/suspicious activity in the financial system. The use of

technology facilitates banks' need to collect, analyze, and share intelligence. Automated social network analysis is a form of technology that enables banks to take a proactive action, expedite processes, saves man-hours (Drezewski et al., 2012). Lastly, investigations are supported by automated data mining and machine learning (Drezewski et al., 2015). However, the decision made by machine learning must be made by humans

Correlation to the Literature

The level of importance technology plays is increasing rapidly as demonstrated by codification in section 6207, 6210, and 6211 in the new AMLA 2020 Act, which advocates for new technology to reduce AML and CFT (Guidehouse, 2021). Participant 6 gave a great example by stating “I actually, I did like a mini study that shows. If you do open an account digitally, we know you better because we're doing all of the different third party non documentary verification.”

According to Participants 1, 4, 5, and 6 artificial intelligence and or machine learning is embedded within transaction monitoring systems to conduct the tedious work. Automation reduces analyst's workload, saves time by increasing speed of analysis, and reduces operational costs (Berberian, 2019). However, a human resource must make the final decision because the compliance staff must be able to explain the decisions to examiners/regulators.

From 2006 to 2009, HSBC Bank USA monitored wire transfers using an automated system called the Customer Account Monitoring Program (CAMP). Despite the knowledge of formal advisories and evidence of the serious money laundering risks associated with doing business in Mexico, HSBC Bank USA knowingly set parameters in

CAMP to its lowest AML risk category. This allowed wire transfers by customers originating from Mexico to circumvent automated monitoring. Therefore from 2006 until May 2009, over 316,000 transactions worth over \$670 billion from HSBC Mexico alone were excluded from monitoring in the CAMP system (Department of Justice, 2012). The use of an algorithm designed to execute Benford's law to detect anomalies, is a good example of how human/technological collaboration can more expeditiously identify suspicious transaction patterns (Badal-Valero et al., 2018).

Emergent Theme 3: Consistent Internal Compliance Training

Training for AML compliance staff is directed by the BSA officer, and it occurs externally and internally. External training comes in multiple forms to include professional and governmental conferences, webinars, governmental advisories, attendance to local bank coalitions, and peer group meetings with other financial institutions of similar size. According to Participant 6, they:

have representatives from the Postmaster General, the FBI, like the Pennsylvania State Police and a couple others, that way they receive information from both our local peer banks about maybe typologies or things that they see through their examinations, as well as what law enforcement is actively seeing from a criminal investigation side.

Table 6, training themes, represents the third theme supported by 6 data sources referencing the topic at a minimum of 4 times.

Table 6*Training Themes*

Training Themes	Number of Participants	Times the Theme was Addressed
Training (internal/external)	6	43
ACAMS	5	14
Conference	4	17
Webinar	2	4

All participants acknowledge that the ACAMS was a highly attended conference. Participant 1 said, “At the end of the day, ACAMS seems to be the gold standard in the, in the industry.” All participants considered ACAMS training a staple in their respective AML compliance strategy and program. Participant 1, said “our director has given us a goal to have 75% of our team to be a CAMS certified.” The certification requires a proctored exam and continuing professional education training. External training often enabled internal training. “Training will be ongoing and incorporate current developments and changes to the AML Laws and regulations to ensure that Bank personnel continue to understand AML requirements and their related responsibilities (Bank 5 policy).” Internal training was revealed to be in varying forms. Four participants referenced internal new hire training plans that included reading, shadowing, and repeated testing. Participant 4 said:

it really becomes a matter of sending your managers and senior managers out for training. They come back and then they drive changes within the organization; they then push that training down to their investigator level staff, they will push it

to the staff in charge. The investigators were trained at a higher level than their frontline bank teller would be trained, but they really need both to get updated a new red flags.

Other forms of training included the BSA officer hosting meetings with law enforcement, assigned research resulting in team dissemination, required readings to include from the FFIEC BSA manual, and on the job training. While training is conducted throughout the year, it was uniformly reported as, at a minimum, an annual requirement. According to Participant 4, the size of the organization can sometimes make it difficult to develop and, provide meaningful training to many thousands of employees. Participant 3 referenced an internal AML/sanctions certification. The specifics of the training were not shared, however, the six participants indicated that the training was designed to prepare the compliance staff for their respective roles to detect the red flags of money laundering.

Correlation to the Conceptual Framework

Training addresses the prevention, analysis, and mitigation components of the Fraud Management lifecycle. Participant 4 described their training program as:

their building bridges, get training along the way, in-house training sent to conferences if you can. A lot of on-the-job training and job shadowing, and then kind of effective quality control (QC) program to ensure that every bit of work that's turned out in the first month is looked at, and maybe it goes down to 50% for the next month, and then 25% for every month after that.

The QC and testing of staff are a mitigating action to ensure proper analysis. Sections 6303 and 6307 of AMLA 2020 both address training of compliance staff (Congress,

116th, 2021; Guidehouse, 2021). As it was in the case of technology, training is impacted by the resources available to smaller banks versus larger banks. Table 4, form of training, demonstrates the forms of training used externally and internally summarily. However, a level of consistent application was not evident.

Table 7

Forms of training

	Training
External	Internal
ACAMS conferences	BSA Officer hosted meetings with law enforcement
US Treasury Sanctions conference	Assign reading from the FFIEC BSA exam manual
Webinars	Standard new hire training
FinCEN advisories	Internal certification
Share best practices in peer group meetings with other financial institutions of similar size	On the job training
State Bankers Association	Job shadowing
American Bankers Association	Webinar
Coalitions of Bank examiners	
Law Enforcement conferences	

Application to Professional Practice

All six participants acknowledged that when assessing the AML and CFT risks to their respective banks, they must consider the types of clients, whether they're individuals or businesses. For businesses, banks must consider what industries and countries they do business in. According to Participant 1, “A lack of staffing, lack of adequate resources, lack of training” are consistent challenges. External communications with law enforcement and private sector can inform banks on the background and associations of companies, particularly international companies. Beneficial owners of international and shell companies have risen to an international concern. External and internal communications play a role in training compliance staff. Lastly, the lack of technological

resources for smaller banks is a vulnerability in relation to human/technological collaboration to expedite and more efficiently identify suspicious activity. This is significant because once illicit actors enter the financial system, as a result of the speed transactions can take, they can move globally. The United States, Canada, and Mexico share borders, trade agreements, and the threat of money laundering and terrorism finance from drug trafficking organizations to their respective financial systems. Mexican banks that maintain correspondent relationships with U.S. banks attract money launderers with access to both sides of the border (Perez, 2017). Lastly, the bank's geographical areas to include border countries, are assessed. Mexico due to the high risk and costly expenses tied to maintaining AML compliance (Fabiano, 2012). According to Participant 5, typically the first line of defense are the business units, the relationship managers. The second line of defense is the financial crimes or enterprise risk management or the vendor area, they manage the control process and advise the first line, and then the third line is the audit function. It is imperative that internal communications enable the three levels of defense to exchange information, disseminate the proper training to identify red flags and transactional issues and publishes appropriate procedures for human/technological collaboration to support the AML compliance program. Insufficiently trained staffing was a concern raised by four participants. The pool of AML trained personnel is not abundant, which adds to the challenge of a lack of training. A lack of adequate resources relates to smaller banks, mentioned by three participants, offering competitive salaries for trained personnel or access to the most technologically advanced transaction monitoring systems. BSA officers cannot manage these types of issues due to a lack of budgetary

control. Participant one stated, "I've been with multiple financial institutions starting at \$1 billion, and even up to the 18 billion. It's still the same fight."

Implications for Social Change

The newly enacted AMLA2020policy, emphasized the importance of communication among private sector, government agencies, law enforcement, and the intelligence community. Communications among this group may reveal technological advances from outside the banking industry. A program that requires all banks, not some banks, to establish these communications on a routine basis can potentially facilitate the education of AML compliance staff, sharing knowledge of best practices, sharing technological advances, and more expedient awareness of emerging trends as well as defenses against them.

Section 6211of AMLA 2020 codified a requirement for a periodic technological symposium to foster collaboration on how to use new technology to prevent, detect, and investigate financial crime and other illicit activity (Congress, 116th, 2021; Guidehouse, 2021). Improved monitoring protects the financial infrastructure of the country, not just the one bank. Transactional speed, lax AML compliance by bordering countries, and technological disadvantage/vulnerability of smaller banks demonstrate the need for technological collaboration. Improved transactional monitoring reduces illicit and fraudulent financial activity that threatens banks financial systems, reduces regulatory fines, and potentially increases the banks' profitability. Increased profits can improve employment and societal infrastructure.

Recommendations for Action

The three themes are essential for compliance officer's AML compliance strategies. Effective internal and external communications facilitate identifying vulnerabilities to banker's AML compliance. When sharing best practices, compliance officers should share the associated implementation process, timing required, and degree of improved success to allow for prioritization of the adoption consideration. Training must be consistent and include how technological innovations are applied to advance money laundering, and how fintech is used to expedite transactions. Properly trained AML staff play an essential role in modifying AML algorithms for detection and explaining resulting reporting or lack of reporting. While all the current forms of training are great, it does not appear the methodologies are executed in a consistent or regimented manner regardless of the institution's size. If a formalized program for AML analysts were developed for all banks, it could facilitate the implementation of best practices across the industry. Participants attested to sharing best practices, receiving regulatory feedback, and law enforcement feedback, it would be a natural progression to formalize the information. This approach/methodology could be programmed into an internal certification. A process that can be documented, tested, and consistent can be designed to be progressive from entry-level to expert knowledge of AML staff. If standardized, the certification with the community's agreement could be validated and transferred across the community because it would be developed within the industry. This type of training/certification could be an alternative or supplement to ACAMS certification. It could prove to be cost effective to banks, particularly smaller banks.

A second recommendation would be for more universities to consider developing and offering an AML certification. ACAMS could partner with universities to develop courses in the same vein as that ACFE has partnered with universities (ACFE, 2022). On average, certifications take four courses. There are currently several universities, including West Virginia, Georgia Southern, and Carlow, that offer fraud examination and forensic accounting graduate certificates. ACAMS partnered with Charles Sturt University in Australia to develop the Masters of Anti-Money Laundering and Counter-Terrorist Financing course, a graduate certificate with the same title. ACAMS also partnered with the University of Versailles to develop a Compliance officer university degree (Bosse, 2017). It appears the right time for ACAMS to collaborate with a university in the United States. A college certification and or degree could potentially increase the talent pool for the banking industry, reducing unemployment.

The third recommendation is related to technology. It was a unanimous belief that smaller banks are at a disadvantage with resources to acquire new technology, compete with larger banks to hire trained AML staffing. It was also implied that if an institution does not implement the same defenses as it peers in response to emerging trends of illicit financial acts, the institution draws the attention of the said bad actors. Therefore, it is in the community's best interest to collaborate on developing a means for smaller banks to acquire access to advanced technology. The collaboration would be an act of mitigation because once a bad actor/money launderer gains access into the financial system, the entire financial system becomes more vulnerable.

The results and recommendations of this study will be shared with participants as agreed during participant recruitment. I will provide participants with link to the study in an email for future reference and distribution. Upon request, I will share the results of my study at conferences, leadership summits, when instructing, and when participating in training seminars. Finally, I will invite future researchers to review of this study for upcoming research focused on combating money laundering.

Recommendations for Further Research

There were three limitations initially recognized in this study, the first of which is that participants' strategies will not apply to all banks because AML compliance strategies are uniquely dependent on a bank's risk factors. I would recommend future researchers conduct a study unique to banks of a specified asset size such as large banks with assets valued at or equal to \$100 billion, or midsized banks with assets between \$8 and \$60 billion, or small banks with assets of \$10 billion or less. Studying a similar grouping of banks could potentially result in defined findings the group could immediately implement.

The second limitation was that money laundering and terrorism financing are global issues affecting banks' AML compliance programs worldwide; however, the technology use and tradecraft sophistication does not exist equally in all locations. These limitations proved to be accurate according to the participants. A recommendation for future research would be to conduct research on the possibility of sharing technology among banks of varying sizes. More advanced research would require knowledge of AML compliance requirements, programing and FinTech technical expertise, possibly

on-site observations, and most likely membership within the banking industry or the vendor base because the technology is potentially proprietary. The findings would facilitate better protection of the financial infrastructure.

The third limitation is that this study's geographic area was restricted to the member states of the United States-Mexico-Canada Agreement, formerly known as NAFTA. Geographic footprint of a bank is a prioritized risk consideration because some areas are riskier than others. Future research could involve other areas of the world or consider different combinations of countries for a specified reason. An example would be the United States, the United Kingdom, and Dubai because they are major financial hubs that interact but deal with different country rules. The findings may identify international gaps in the approaches to anti-money laundering.

Reflections

I have lived in Europe for more than 13 years. I liken my experience to obtaining a Doctor of Business Administration (DBA) degree with Walden University to my experience hiking a fit tag (day) in southern Bavaria in Germany. To my surprise, the hike started on a steep incline to get the blood going, I hoped it would level off and flatten out, but the inclines continued; the saving grace was switchbacks. The first few courses of the program brought me to tears and made me doubt my ability to finish something for the first time in my academic life. The saving grace for me was my faith in God, the support of my family, classmate encouragement, patience, and mentoring of my professors and my chair. I will be forever grateful to all for their support.

I reached the mountain top, thinking I had completed the hardest part. Little did I know that the hike down would take a toll on my shins. The reward at the end was a shallow cool pool for the feet and the satisfaction of knowing you finished. The academic courses were challenging and educational. I thought the hardest part was over when I completed all the academic coursework. I did not realize the level of effort required for the research, writing the study, and finding participants. The interviews with participants are likened to the cool pool at the bottom of the mountain. The participants expanded my educational experience just as much as the research, in addition to giving me a sense of affirmation that I learned and understood the literature appropriately.

The research process has expanded my knowledge base, been comprehensive, increased my understanding of the AML topic, and been an affirmation that I made the right choice in choosing a DBA. The research conducted for the study enabled me to fill a gap in my office mission. The experience has better prepared me to progress in my career and consider consulting opportunities and teaching at the university level.

Conclusion

The purpose of this qualitative multiple case study was to explore strategies that compliance officers use to develop, implement, upgrade anti-money laundering compliance program technology and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profit. The target population for participants was BSA AML compliance officers. Six officers from varying-sized banks offered their experience and knowledge interviews to triangulate with peer-reviewed literature, governmental documents, previous BSA cases, the newly

implemented AMLA 2020, and a submitted policy document. The fraud management lifecycle theory was the conceptual framework used to guide the completion of the study. Semi-structured, recorded interviews were conducted according to an interview protocol, including 11 open-ended questions. The responses were transcribed verbatim and reviewed by the participants. Data analysis revealed the three connected themes of communication, training, and technology as essential elements to support and improve AML strategies designed to protect their respective banks' competitive positioning and profits. Communication is critical to implement the varying forms of training, and productive training must include technology. Analysis of the respective themes demonstrated their association with the Fraud Management Lifecycle Theory components. Contributions of this study will be the provision of considerations that may be instituted to improve strategies to implement AML compliance programs.

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Appendix A: Interview Protocol

The research question for this study is: What strategies do some compliance officers use to develop, implement, upgrade anti-money laundering compliance program technology and procedures to reduce threats of money laundering and terrorist financing, to protect competitive positioning and profit?

This qualitative, multiple case study, consists of eleven open-ended questions to gain ideas and insights from AML compliance officers of banks located in the United States, Canada, and Mexico.

Interview Protocol	
Protocol Steps	Protocol Actions
Select participants The primary and criteria is: This study seeks anti-money laundering compliance officer volunteers who may have unique accesses. <ul style="list-style-type: none"> • Experienced in implementing AML compliance programs. Most of these personnel are member of ACAMS, but membership is not a requirement.	I will contact participants by email and phone according to established eligibility criteria.
Set time and place for interview	Interviews will take place via phone or Zoom.
Introduce the interview and set the stage	I will thank the participant for their time and contributing to the research. Explain the purpose of the research study. Provide each participant a written consent form prior to the interview. Ask if the participant is comfortable with starting the audio recording
Record the interview	I will state the date and time of the recording. I will ask the participant to state: <ol style="list-style-type: none"> a. their name and title/position

	<p>b. Years of experience or unique access</p> <p>c. Size of their bank financially to aid in categorization of the banks and the number of employees associated with the bank.</p>
<p>Ask open-ended questions Asking follow-up probing questions for clarification as needed.</p>	<ol style="list-style-type: none"> 1. Who is responsible for the maintenance and upgrading your AML/CFT compliance program? 2. How is your institution's compliance program designed specifically to prevent and detect money laundering? 3. How does your institution remain informed with the most current trends affecting AML/CFT compliance programs to ensure they are up to date? 4. How do you assess the effectiveness of your bank's AML/CFT strategies and their implementation? 5. How is your AML/CFT compliance program audited/tested? 6. How often are your strategy(ies)/protocol(s) and implementation processes reviewed for update considerations? 7. What role does technology play in your AML/CFT design strategies? 8. How is artificial intelligence or machine learning incorporated in your AML compliance program? 9. How does your organization's AML/CFT strategies drive the implementation of fast paced technology evolutions into your AML compliance program to remain up to date?

	<p>10. How are your staff trained to prepare for their respective work roles in the AML/CFT compliance program?</p> <p>11. What other challenges or successes you would like to discuss related to your organization's AML/CFT compliance strategies you developed and implemented?</p>
Wrap up the interview thanking participant	<p>Thank each participant again for their time.</p> <p>Confirm the participant has my contact information in case there are questions or concerns.</p>
Transcribing the interview	<p>I will transcribe each interview verbatim.</p> <p>I will analyze and code the participant responses for patterns, discovery of information gaps, and point of saturation.</p>