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The engagement in fraudulent behavior – social aspects

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Abstract

Fraud is a widespread and ever-evolving threat that infiltrates various sectors of society, including but not limited to financial institutions, the digital realm, and interpersonal relationships. The primary aim of this research is to investigate the influence of six social factors on fraudulent conduct and to proactively mitigate such conduct prior to its manifestation. The research employs a mixed methods approach in order to accomplish its objectives. Specifically, a quantitative method is utilized to investigate the relationship, while a qualitative method is employed to mitigate the occurrence of such behavior. In particular, a total of 112 questionnaires were administered to individuals who identified as professionals and students. Additionally, a subset of six external auditors and anti-fraud professionals were selected for in-depth interviews. The findings of the study indicate a significant and positive correlation between attitude, subjective norms, and perceived behavior with fraudulent behavior. Conversely, there exists a notable and adverse correlation between culture and fraudulent conduct. Based on the findings of the conducted interviews, it has been determined that the implementation of robust internal controls, regular training programs, and the provision of employee welfare measures are widely recognized as the primary strategies employed to mitigate instances of fraud resulting from social factors.

Aknowledgement

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Purpose Statement

The purpose of this research is to examine whether social factors can help explain a person's intention to engage in fraudulent behavior, including fraudulent financial reporting and asset misappropriation. This study aims to construct a model that may aid in reducing the frequency of fraudulent behavior, not only via its predictive properties, but also through the recommended solutions that the accounting profession should adopt, and the universities should teach. According to the theories of reasoned action and planned behavior, social variables, such as attitude, subjective norms, and perceived behavioral control, may aid in predicting an individual's behavior. As a result, this study proposes that social characteristics suggested by Fishbein and Ajzen (1975, 2010) and Ajzen (1985, 1991) should be considered when determining the likelihood of fraudulent behavior.

This research is informed by the theory of planned behavior, it is expected that culture, religiosity, and law awareness will have a significant impact on behavior prediction, along with social variables suggested by Fishbein and Ajzen (1975, 2010) and Ajzen (1985, 1991). This research contributes to:

a) the accounting and auditing professions by assisting them in preventing fraud.
b) human resource professionals in considering social factors when hiring new employees.
c) universities in teaching students how to reduce the incidence of unethical behavior by implementing the framework and the suggested solutions.

Personal Motivation

I graduated from Al Yarmouk University with a bachelor's degree in accounting in 2013. My ambition has always been to become a professor of accounting and auditing, as I believe that these two fields require analytical abilities to be performed correctly. I began my career as a junior auditor with Talal Abu Ghazaleh for International Accounting and Auditing for one and a half years. I then joined KPMG Lower Gulf Limited as a junior auditor and was promoted to senior auditor, in less than four years, with a double promotion offer in exchange for canceling my resignation request.

I encountered numerous frauds throughout those years and learned a great deal about how to detect and prevent them; however, I never understood why people commit fraud. One could argue that we all make mistakes, but the point here is not the mistake itself, but rather what causes us to make such mistakes and act unethically. My encounters with fraud motivated me to take the first step toward achieving my dream of advancing my academic career. As a result, I applied to the University of Bergamo for a master's degree and then pursued a Ph.D. at the same institution. I have always known what I wanted to study and investigate. I had a topic in mind that I wanted to study and investigate, but I was unsure whether it would be for my Ph.D. program or my post-doctoral work. After several discussions with my loved ones and those who care about me, I decided to investigate the social factors that contribute to fraudulent behavior for my Ph.D. program.

General background of the study

Our daily habits can significantly impact our health and well-being, the lives of others we know, groups we belong to, and greater society. We cannot develop effective ways to solve social problems if we do not know what makes people behave in a specific way. Figuring out why people conduct specific behavior can be challenging because there are so many different behaviors linked to a wide range of social problems in both the developed and the developing world. It is hard to explain human behavior in all its complexity. Past efforts to predict and explain human behavior have used concepts, like social attitude and personality traits, to figure out what people will do and why they do it. According to a survey distributed by ACFE in 2010, the average organization loses 5 percent of its annual revenue to fraud. When applied to the estimated 2009 Gross World Product, this figure corresponds to a potential loss of more than $2.9 trillion in total fraud (ACFE, 2010). Scandals such as Enron, WorldCom, and others have spotlighted organizational behavior (Carpenter & Reimers, 2005).

Many scholars have investigated the reasons for why employees commit fraud (Moore, et al., 2012), what incentivizes them to commit fraud (Fung, 2015), and how to prevent it (Gonzalez & Hoffman, 2018; Bauer, et al., 2020). However, only a few studies (Carpenter & Reimers, 2005; Davis & Pesch, 2013; Werner, et al., 2019) focus on an individual's behavior and the social aspects of committing fraud. Immanuel Kant, the founder of deontological ethics, studied the relationship between duty and the morality of human actions through his highly influential works, such as the

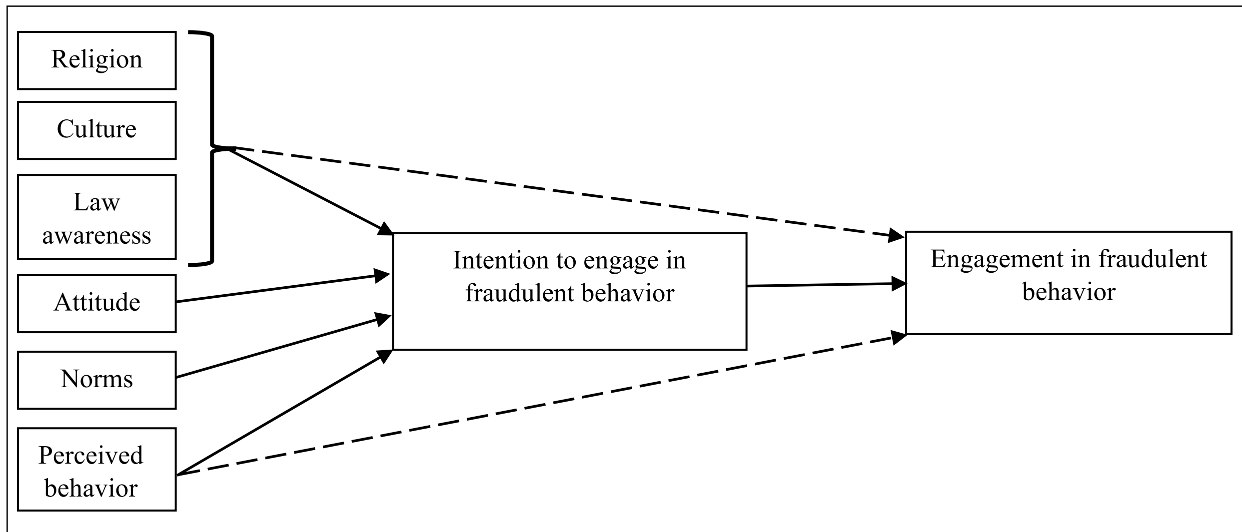
Critique of Pure Reason in 1781, the *Critique of Practical Reason* in 1788, and the *Critique of the Power of Judgment* in 1790 (Callanan, 2013). This led other scholars to analyze ethical and unethical behavior in organizations, resulting in a rich and insightful body of work.

Stakeholders, including stockholders, communities, and governments, have increased pressure on businesses to manage employees' behavior in ways that minimize illegal and fraudulent behavior. Accounting and auditing researchers investigated the relationship between organizations and employees using a variety of theories, such as agency theory, to better understand how management behaves toward the organization and stockholders without considering the social aspects of individuals. Agency theory can determine how agency costs should be allocated to reduce the likelihood of opportunistic behavior. It assumes that self-interest is one factor that affects employees' behavior and, hence, concerns the relationship between employees and organizations (Eisenhardt, 1989). However, one could argue that self-interest may result in fraud, as opportunistic behavior includes distorting or withholding information, evading responsibilities, cheating, and other forms of dishonest behavior (Atuahene-Gima & Li, 2002).

Theoretical framework

This research employs an expanded conceptual framework based on Fishbein and Ajzen's (1975) theory of planned behavior. According to the theory, any behavior is carried out if an individual intends to do so. Attitude, subjective norms (Fishbein & Ajzen, 1975), and perceived behavioral control (Ajzen, 1985; Ajzen, 1991; Fishbein & Ajzen, 2010) all have an effect on intention, and thus on behavior. Additionally, even when no intention is present, perceived behavioral control may directly influence behavior.

In other words, either intention or perceived behavior control is required to predict behavior. However, a review of the literature demonstrates that other social factors can also influence intention and behavior. As a result, the following framework is used to illustrate the relationship between the relevant variables.



Research questions

Given the difficulty of predicting fraudulent behavior, and the critical impact of fraud on the economy and society, the following research questions enable the development of a model to predict fraud. In so doing, it focuses on the social factors suggested by the theory of planned behavior (i.e., attitudes, norms, perceived behavior) and extends these factors to culture, religiosity, and law awareness, thereby creating a set of new fraud prevention strategies.

> *R1:* What are the social factors influencing fraudulent behavior?
>
> *R2:* What is the relationship between social factors (attitudes, norms, perceived behavior, culture, religiosity, and law awareness) and fraudulent behavior?
>
> *R3:* What techniques and procedures might be implemented to combat fraud caused by social factors?

Research methodology

A mixed method is used to accomplish the research's objective. It was applied as follows:

1) In order to gain a comprehensive understanding of the social factors that influence fraudulent behavior, a contextual literature review will be conducted. This review will serve as the foundation for constructing a theoretical framework.

2) 112 closed-ended questionnaires were completed, each with a scenario. The sample was asked how they would behave in these scenarios. The respondents were required to respond to these questions using the Likert-scale to assess the investigated factors.

3) In-depth interviews were conducted with auditors, fraud examiners, and compliance professionals to ascertain how they prevent frauds related to and caused by the social factors mentioned previously.

Introduction

In recent years, the business landscape has witnessed a growing commitment to upholding ethical standards and principles, leading to an abundance of research dedicated to ethical decision-making processes within various organizational contexts, including but not limited to Rest (1986), Jones (1991), and Schwartz (2016). However, it is worth noting that the prevailing literature predominantly delves into ethical decision-making, while a distinct dimension of unethical behavior has received limited attention. Despite its prevalence and profound implications for businesses and society, fraudulent conduct remains relatively unexplored within the realm of business ethics. This research endeavors to bridge this gap by shedding light on the intricacies of fraudulent behavior. It offers a fresh perspective that extends beyond traditional ethical decision-making frameworks, recognizing that while various models have been developed to guide moral reasoning, their primary focus may not fully align with our research objective of comprehensively examining and understanding fraudulent behavior.

Throughout the course of history, the practice of deception has undergone a parallel evolution alongside advancements in technology, commerce, and human creativity, spanning from ancient civilizations to contemporary society. The concept of "fraud" encompasses a broad range of deceptive tactics, each capable of causing substantial financial, emotional, and societal harm. In the context of our investigation into fraud, the study delves into a realm where the preservation of trust is consistently at risk, and where the distinction between authenticity and deception becomes progressively ambiguous.

Fraud is a complex concept that encompasses various manifestations and has a pervasive presence in numerous aspects of our daily lives. It manifests within the complex financial transactions of multinational corporations, the digital interactions among individuals, and the nuanced dynamics of interpersonal relationships. The prevalence of fraudulent activities serves as evidence of its ability to adjust and modify itself, persistently adapting to advancements in technology, regulatory measures, and human conduct.

In order to gain insight into the contemporary and prospective landscape of fraudulent activities, it is imperative to direct our attention towards historical occurrences. Throughout the course of history, fraudulent activities have been a recurring occurrence. Throughout history, there have

been numerous instances wherein individuals and collectives have endeavored to exploit trust for their own personal benefit, ranging from the use of counterfeit currency in ancient Rome to the implementation of Ponzi schemes in the early 20th century. These historical episodes offer valuable insights into the persistent nature of fraud, demonstrating that although the specific strategies may evolve, the fundamental motivations remain unchanged.

The emergence of the digital era has initiated a novel phase of fraudulent activities, distinguished by unparalleled prospects and complexities. The internet, due to its extensive interconnectedness and the ability for users to remain anonymous, has created a conducive environment for cybercriminals to execute intricate schemes that transcend national boundaries. The proliferation of fraudulent activities in the digital domain, ranging from identity theft and phishing scams to ransomware attacks and cryptocurrency fraud, has significantly extended the boundaries of fraudulent practices into previously unexplored territory.

The occurrence of fraudulent activities imposes a significant economic burden on individuals, businesses, and governmental entities. The economic impact of this financial burden manifests in various ways, including escalated expenses for commodities and services, diminished consumer confidence, and, in certain instances, the complete dissolution of entire entities.

The ramifications of fraudulent activities extend beyond individual and economic domains, exerting a profound influence on society at large. Corruption scandals possess the potential to diminish public confidence in governmental bodies, financial establishments, and corporate entities, thereby compromising the fundamental pillars of a resilient society. Furthermore, the allocation of resources towards the prevention and detection of fraudulent activities hinders efforts directed towards tackling urgent societal concerns, including poverty alleviation and healthcare provision.

In the subsequent chapters, an analysis will be conducted on the structure of fraudulent activities, encompassing white-collar offenses as well as cyberattacks. This examination aims to elucidate the strategies, incentives, and preventive measures that characterize this intricate domain. By engaging in this endeavor, our objective is not solely to enhance our comprehension of fraudulent activities, but also to equip ourselves and others with the ability to effectively confront and overcome this constantly changing obstacle through attentiveness and adaptability.

Chapter 1: Fraud and behavior

Introduction

Within the broader realm of ethical decision-making, various models and frameworks have been developed to explore moral reasoning and guide individuals and organizations in navigating complex ethical dilemmas. While these models have significantly contributed to our understanding of ethical behavior, it is essential to recognize that their primary focus often pertains to ethical decision-making, which may not directly align with this research objective of studying fraudulent behavior.

Fundamentally, fraud encompasses a violation of confidence, frequently encompassing actions of deceit, misrepresentation, or manipulation with the intention of obtaining an unjust advantage or unlawful monetary benefit. Although the legal and financial consequences of fraud have been extensively studied, there is still a significant gap in understanding its behavioral dimensions. Gaining insight into the motivations behind individuals' engagement in fraudulent activities, their cognitive justifications, and the underlying psychological mechanisms is of utmost importance when devising efficacious strategies for fraud prevention and intervention.

Human behavior is a complex and multifaceted phenomenon that is shaped by a diverse range of factors, encompassing individual characteristics, cultural conventions, economic circumstances, and technological progress. The objective of this study is to elucidate the intricate nature of fraudulent behavior by investigating the underlying motivations, triggers, and cognitive processes involved. Additionally, this study examines the influence of social, cultural, and organizational elements on the creation of a context that facilitates fraudulent behavior.

Fraudulent activities have the effect of redirecting resources away from productive and legitimate pursuits, thereby impeding economic growth and inhibiting innovation. The financial ramifications encompass not only corporations and governmental entities, but also individuals who may experience substantial monetary setbacks as a result of fraudulent activities and deceptive schemes.

1. Definition and types of Fraud

Fraud may be found in every organized society throughout the world. It impacts various businesses, regardless of their size, location, or sector. According to a study conducted by the

ACFE[1] in 2020, US businesses lost over $994 billion in 2008 due to fraud, with nearly one in four occurrences costing the company more than $1 million. The same study showed that 29 percent of accounting department personnel commit fraud, whereas top management members commit 18 percent. According to PwC's 2009 Securities Litigation Study, the bulk of filings in 2009 identifies top officials of businesses. The proportion of US federal securities class action cases that named the CEO, CFO, chairman, or president as fraud committers was 81 percent, 62 percent, 47 percent, and 62 percent, respectively (Golden, et al., 2006). Financial fraud is still a big problem for regulators and businesses, as well as the people who invest their money.

People typically have a visceral reaction to fraud. It violates our right to expect fair treatment from our fellow human beings. It is a blow to the self-image of sharp managers capable of deterring or detecting a fraud scheme. Noone enjoys being duped, whether our reaction is motivated by our values or vanity. Numerous facets of contemporary society are devoted to fostering an environment of fair dealing. Legislation is enacted; enforcement agencies are established; police officers are hired; ethics and morals are taught in schools and reinforced in businesses; and criminals are punished by forfeiture of their ill-gotten gains and personal liberty, all to deter, detect, and punish fraud. Financial loss is a significant consequence of fraud. As a result, the accounting and auditing professions are intrinsically tied to fraud prevention, detection, and investigation in the eyes of the investing public (Golden, et al., 2006).

Accounting fraud entails falsifying financial data by manipulating the books, deceiving investors, or self-dealing by corporate insiders, which is typically associated with senior executives misappropriating corporate assets. It also involves criminal penalties for obstruction of justice, which include falsifying testimonies in Securities and Exchange Commission (SEC) depositions, influencing or threatening other witnesses, or lying to criminal investigators (Rezaee & Riley, 2002). In SAS 99, *fraud* is defined as a purposeful conduct that results in a substantial misrepresentation in audited financial accounts (AICPA, 2002, p. 1721). Additionally, Webster Dictionary describes it as a lie used to coerce another person into relinquishing custody of something or waiving a claim (Webster, 2023). Furthermore, in legal terms, it is referred to as a generic term that encompasses all the many ways that human ingenuity can come up with to

[1] Association of Certified Fraud Examiners

commit fraud, and which are used by one person to gain an advantage over another by false suggestions or by omitting the truth (Rezaee & Riley, 2002).

Precise definitions of fraud are difficult to determine from announcements or authoritative statements, mainly because the accounting industry only started to use fraud in professional pronouncements in the last decades. Wells[2] (2017, p. 2) represents *fraud* as "occupational fraud and abuse" and explains it as when someone uses their job to make money for themselves by intentionally misusing the resources or assets of the company where they work. Apart from definitional disagreements, academics and practitioners agree on at least four fundamental elements of fraud (Rezaee & Riley, 2002; Golden, et al., 2006; Wells, 2017):

- A fabrication of a material nature.
- Knowledge of the fabrication's falsity or willful disregard for the truth.
- Reliance on the victim's false representation.
- Infliction of financial harm.

As a result, *fraud* is defined in this research as any illegal action or abuse which harms others with or without intent to harm them, as well as any action that misleads investors and other financial statement users. However, although the AICPA[3] classifies fraud into two categories, specifically, fraudulent financial reporting and misappropriation of assets (AICPA, 2002), the literature indicates that there are additional types of fraud, such as online frauds (Rezaee & Riley, 2002) and corruption (Golden, et al., 2006). The following sections provide a detailed analysis and literature review of each type of fraud, as well as detailed examples of each.

1.1. Online fraud

Globalization is defined as the process through which the interconnectedness of individuals from various countries grows and deepens. Occasionally, the word means removing obstacles to international trade in commodities, services, money, technology, and people that block global economic integration. Globalization provides us with a greater variety of items, a higher standard of living, and more reasonable costs (Daniels, et al., 2004). Additionally, over the past decade, e-

[2] Dr. Wells is founder and Chairman of the Board of the Association of Certified Fraud Examiners (ACFE) and ex-agent Special Agent of the FBI.
[3] American Institute of Certified Public Accountants

commerce has risen at an unparalleled pace. The internet has therefore impacted nearly every aspect of business from client acquisition and service to electronic payment. Organizations are also continually innovating new techniques for offering goods and services online. Appropriately, E-commerce is seen as a crucial aspect of the economic development of the twenty-first century, prompting regulators and politicians to watch the burgeoning digital economy closely. Electronic commerce and the developments in information technology that allow it are two sides of the digital economy (Rezaee & Riley, 2002).

Computers and the internet have changed the way individuals communicate and manage their money, including how they are victims or perpetrators of fraud (Bossler, et al., 2020). Wall (2007) differentiates between two types of online fraud: computer-assisted and computer-oriented fraud. The former are pre-modern frauds, such as false goods and services, which have been enhanced and given a new dimension by the internet. The latter refers to new fraud, such as harmful software related to rising technology. For example, the Emulex email hoax in 2000, which communicated false information about a firm's financial prospects, led to a drop in the company's stock price by 61 percent, resulting in a loss of more than $2 billion. Criminals distributing viruses and economic fraud may considerably influence the quality, integrity, and credibility of financial reporting. The Emulex hoax was an electronic scam against Emulex, which resulted in a significant drop in the company's stock price, and a loss of millions in market capitalization—all this within hours of a fake and deceptive email message being sent to the internet Wire (Rezaee & Riley, 2002).

However, quantifying the magnitude and diversity of distinct kinds of online fraud is problematic for various reasons. To begin, there is a reporting gap. Second, there is a shortage of internationally recognized categories of fraud. Third, many frauds operate via a variety of media, including the internet. Fourth, many national organizations do not effectively share or deconstruct the information (Button, et al., 2014). Thus, online fraud may be categorized as cybercrime (Australian Federal Police, 2022), a data breach (National Cyber Security Center, 2021), or a different kind of fraud such as online transaction fraud (Cyber Crime Unit, 2022). However, the Australian Federal Police (2022) defines *online fraud* as crimes conducted against computers or other information communication technologies, as well as crimes perpetrated with the use of computers or other information communication technology. Additionally, Cross et al. (2014) describes it as an individual's experience of responding to an unethical invitation, request, notification, or offer

through the internet by providing personal information or money, resulting in financial or non-financial loss of some kind. To accomplish this research's objective, *online fraud* is defined as any illegal activity carried out via the internet or computers with the intent to harm others by:

1) stealing their money,
2) stealing their confidential information to blackmail them,
3) misleading them into making decisions,
4) taking their money for products or services without providing them with anything in exchange, and,
5) taking money for donations without donating it to the deserving people.

There are no real or measured economic consequences associated with online fraud since most online frauds go undetected for a variety of reasons, including victim self-blame, shame, and the crime's low monetary value. Considering registered crimes or frauds, the NFIB[4] (2021) projects that total reported online frauds in the United Kingdom alone would total around $3.2 billion in 2021 (Button, et al., 2014).

One of the most famous cyberattacks committed involved the Melissa virus. In March 1999, an American programmer named D. L. Smith used a hacked AOL[5] account to release a computer virus named "alt.sex" (The FBI, 2019). The release of the Melissa virus caused $80 million in harm by affecting home PCs, commercial, and government computer networks. According to US Attorney Christopher J. Christie, virus programmers are empowered by technology and revel in the excitement of seeing the havoc they wreak (USDOJ, 2002).

Smith acknowledged creating and disseminating Melissa malware from his personal computer and stated that the virus was designed to circumvent anti-virus software and infect machines running Windows 95, Windows 98, and Windows NT operating systems as well as the Microsoft Word 97 and Word 2000 processing applications. On March 26, 1999, the Melissa virus infiltrated hundreds of email servers, masquerading as an essential communication from a colleague or friend. The emails welcomed new users with an attractive message to open, which spread the infection. The message read as: "Here is that document you asked for ... don't show anyone else;-)" (United States General Accounting Office, 1999; USDOJ, 2002).

[4] The National Fraud Intelligence Bureau
[5] AOL is a mail domain same to Gmail, Hotmail, etc.

The virus was programmed to send an infected email to the users' first 50 email addresses on their mailing lists. Such emails would be sent only if the machines were equipped with Microsoft Outlook. Because each infected computer was capable of infecting 50 new machines, each of which could infect another 50 computers, the virus spread swiftly and exponentially, resulting in significant disruption or degradation of public communications or services. The Melissa virus can swiftly overwhelm electronic mail servers and cause a denial-of-service attack if the addresses in the electronic mail address book are inside the same company. According to the Coordination Center at Carnegie Mellon University, one site reported getting 32,000 copies of Melissa-containing mail messages on its servers within 45 minutes (United States General Accounting Office, 1999).

According to industry and government reports, after the virus's propagation, the virus's quick spread interrupted computer networks by overloading email servers, resulting in network shutdowns and high expenditures associated with repairing or cleansing computer systems. Additionally, in some conditions, Melissa may trigger the disclosure of confidential material without the user's knowledge. The virus modified Microsoft word processing products so that every document written with the program became infected. Additionally, the malware reduced the security settings for macros in word processing apps. The virus then spread through the Microsoft Outlook application, infecting computers and prompting them to send electronic mail to the first 50 addresses in the computer user's contact book (United States General Accounting Office, 1999; USDOJ, 2002).

The New Jersey scammer charged with releasing the Melissa computer virus in 1999, which caused millions of dollars in damage and infected an incalculable number of computers and computer networks, was sentenced to 20 months in federal prison and a $5,000 fine (USDOJ, 2002; The FBI, 2019). Additionally, Smith was sentenced to three years of supervised release upon release from jail. He was also ordered not to engage in any activity involving computer networks, the internet, or internet message boards until the Court authorizes it. Finally, upon his release, Smith was required to do 100 hours of community service (USDOJ, 2002). Fortunately, Melissa did not permanently harm government or private sector computer systems or breach vital government data beyond shutting down e-mail networks (United States General Accounting Office, 1999).

1.2. Financial statement fraud

Financial statement fraud has been a frequent news headline for many years. High-profile incidents have called into question large firms' corporate responsibility and honesty. In 2011, Michael Woodford, the newly hired CEO of Olympus Corporation in Japan, discovered one of the country's largest and longest-running accounting crimes. Less than two months later, however, Woodford was fired for raising concerns about the company's accounting procedures. Such procedures involved hiding $1.7 billion in investment losses, while the company's financial advisers received about $700 million in mergers and acquisitions fees (Wells, 2017). Although financial statement fraud accounts for a tiny fraction of overall fraud, its cost is unquestionably the highest, with an average yearly cost of $250 million (Rezaee & Riley, 2002).

The term "financial statement fraud" can be defined in a variety of ways, but most definitions include the same fundamental elements. According to the National Commission on Financial Reporting (1987), *financial statement fraud* is intentional or irresponsible behavior that leads to false financial statements. The AICPA (2002), meanwhile, describes it as deliberate conduct that results in a significant misrepresentation in audited financial statements. Additionally, Rezaee & Riley (2002) explain it as intentional misstatements, omissions of financial statement information, or disclosures with the intent of deceiving financial statement users, notably investors and creditors. Similarly, Golden et al. (2006) define it as the deliberate misrepresentation or omission of financial reporting numbers or disclosures to mislead financial statement users. More precisely, financial statement fraud involves the manipulation, fabrication, or change of accounting data or supporting documentation used to create financial statements. It also refers to the deliberate misapplication of accounting rules to manipulate results. Regardless of the terminology used to characterize fraud, these definitions have the following components:

- Forgery, modification, or manipulation of significant financial records, supporting documentation, or commercial transactions.
- Significant deliberate omissions or misrepresentations of events, transactions, accounts, or other material information used to create financial statements.
- Accounting concepts, rules, and processes that are used to measure, identify, record, and report economic events and commercial transactions that are intentionally misapplied.

- Inadequate disclosures of accounting principles and policies in addition to relevant financial numbers.

Wells (2017) identifies three broad categories of financial statement fraud. By being aware of these three tactics, people investigating financial statement fraud may look for evidence of efforts to distort or circumvent the accounting and financial reporting process. Financial statement frauds may use more than one of these three techniques, but they often begin with the first and then expand to include the other two as the fraud progresses. The three most common ways are as follows:

1) Experimenting with the accounting system. Fraudsters use the accounting system to obtain the desired outcomes. For instance, fraudsters may alter the assumptions to compute depreciation costs, allowances for bad debts or allowances for excess and outdated goods to achieve the desired result. Vendor invoices may not be reported in a timely way to avoid incurring expenditures and obligations. Genuine sales may be prematurely reported.

2) Defending against the accounting system. In this method, fraudsters enter fake and fictional data into the accounting system to affect reported results by a more prominent factor than what can be accomplished by manipulating the accounting system. Fictitious sales to accurate or false consumers may be recorded. Inventory and receivables may be fabricated, with documentation afterward to substantiate the reported figures. Senior financial management may establish allowances for bad debts and excess and outdated inventories without reference to the organization's formulae or techniques.

3) Leaving the accounting system. Through this method, fraudsters may generate whatever financial statements they choose. These financial statements might be based on the outcomes of an operational entity's accounting and financial reporting procedures, with human alterations to reach the fraudsters' intended results. In rare instances, fraudsters may return and add fictitious data into the accounting system to support the fabricated financial statements. In certain instances, they may not bother, or there may be no accounting system in place.

One of the largest financial statement fraud scandals in history is the Enron scandal. Enron, an American energy company, had provided wholesale and retail clients with goods and services linked to natural gas, power, and communications. Between 1993 and 1997, Enron's shares did

not gain considerably since the business was primarily seen as an energy company focused on natural gas production and delivery. In 1997, however, the Company initiated a diversification initiative comprising acquisitions and new business ventures. As defendants pushed these prospects and reported good financial results, Enron's stock price continued to rise, hitting $40 per share in mid-1999 and eventually reaching $83 per share on December 29, 2000. By April 2001, Enron was the seventh most giant corporation in the United States, according to the annual "Fortune 500" ranking. In August 2000, Enron's stock reached a price of $90 per share (USDOJ, 2002).

Diversification was a capital-intensive strategy that required billions of dollars in debt and equity issuances. To increase Enron's attractiveness to investors and gain higher credit ratings, defendants pushed Enron to falsify its financial statements by excluding unproductive and debt-ridden subsidiaries. Broadband Services Division was created as part of the diversification strategy to build a worldwide network to supply comprehensive bandwidth solutions and high-bandwidth applications (USDOJ, 2002; The FBI, 2002).

This division forced Enron into complex financial hedging agreements with two limited partnerships managed by Enron's CFO. These purchases were supposedly hedging operations in the broadband market, exposing the Company to increasing risk and uncertainty as the market for bandwidth continued to deteriorate. Furthermore, Enron's financial statements did not combine the performance of these partnerships or other subsidiaries, resulting in a substantial misstatement of Enron's financial accounts (USDOJ, 2002).

Enron could raise finance from outside investors, such as banks, insurance companies, pension funds, and even the wealthy by establishing partnerships partially controlled by the Company. Because the partnerships were maintained independent from Enron, their debt was kept off the Company's financial statement. Hundreds, if not thousands, of criminal partnerships were created to maintain its operations. Enron had around 3,500 subsidiaries and affiliates in total, the majority of which were limited partnerships and limited liability corporations (USDOJ, 2002). As time passed, Enron stashed troublesome and depreciating assets in these partnerships, such as specific foreign energy installations or shares, in corporations or partnerships that Enron sold out to the public. By incorporating the assets into partnerships, Enron could conceal losses that it would have had to declare otherwise. On the other hand, several of the partnerships were leveraged to generate

big bursts of revenue for Enron through sophisticated financial transactions. In one example, known as Project Braveheart, Enron earned more than $100 million over six months from a business that never got off the ground (USDOJ, 2002; USDOJ, 2004).

Additionally, Kenneth L. Lay, Jeffrey K. Skilling, and Richard A. Causey, all former Enron leaders, participated in a multifaceted plot to cheat in violation of federal securities laws. Lay, Skilling, Causey, and others gained millions of dollars due to their plot to cheat via salaries, bonuses, and the selling of Enron shares at inflated values obtained through illegal tactics. Skilling and Causey amassed at least $103 million and $23 million, respectively, in illegal profits. Lay also gained millions of dollars in illegal profits and was unfairly benefited when he covertly unloaded significant quantities of his personal Enron shares while falsely claiming that everything was well at Enron (USDOJ, 2004). In 2006, Enron's former CEOs, Lay and Skilling, were convicted on charges including conspiracy, securities fraud, wire fraud, and making false statements (USDOJ, 2006), while Causey was convicted of securities fraud (USDOJ, 2006).

1.3. Asset misappropriation

Asset misappropriation includes the theft of cash or inventory, revenue skimming, payroll fraud, and embezzlement. The most prevalent sort of fraud is asset theft (Golden, et al., 2006). According to Black's Law Dictionary, *misappropriation* is the fraudulent use of another's property or money for one's benefit. *Assets* are defined as possible future economic gains received or controlled by a certain entity due to prior transactions or occurrences. More concisely, assets are the number of resources a company owns. However, asset misappropriation is classified as either cash or non-cash asset misappropriation (Wells, 2017).

1.3.1. Cash misappropriation

Cash misappropriation may be classified into three types: skimming, larceny, and fraudulent disbursements. Skimming is the act of removing funds from a victim entity prior to its accounting system entry. Skimming operations are called off-book frauds since the cash is taken before it is registered in the victim company's records. Since the stolen funds are never documented, skimming methods leave no direct audit trail. As a result, it may be challenging to determine that money has been taken. This is a significant benefit to the fraudster of a skimming scam (ICAI,

2008; Wells, 2017); however, Cohen et al. (2010) suggest that changes in behavior or lifestyle may indicate assets have been misappropriated.

Skimming may occur at every point where funds enter a firm, which means that practically anyone who handles cash transactions may be a fraudster. This category includes salesmen, tellers, wait personnel, and those that handle consumer cash directly. Additionally, several skimming actions are carried out by staff tasked with collecting and documenting payments received by clients through the mail. These personnel may remove cheques from incoming mail for personal use rather than posting them to the appropriate revenue or customer accounts. Those who interact directly with clients or manage customer payments are the most likely candidates to steal money (ICAI, 2008; Wells, 2017).

The term "cash larceny" refers to the purposeful stealing of an employer's cash (which includes both money and cheques) without the employer's permission and against his will. In contrast, fraudulent disbursement schemes are when money is sent from a corporate account in a seemingly legitimate way, such as paying false invoices (ICAI, 2008; Wells, 2017).

1.3.2. Non-cash asset misappropriation

There are essentially two methods for an individual to misappropriate a corporate asset. The asset may be abused or stolen. Misused assets are often business cars, supplies, computers, and other office equipment. For instance, an employee may use a business car for personal purposes while on an out-of-town assignment. The employee in this case gives inaccurate information about the nature of the car's use. Although the car will be returned undamaged and the cost to the perpetrator's business was just a few hundred dollars, such unlawful use of a corporate asset constitutes fraud when accompanied by a false statement (ICAI, 2008; Wells, 2017).

Some workers utilize computers, supplies, and other office equipment to conduct personal business during corporate time. For instance, an employee may use his/her work computer to send letters, print invoices, or do other tasks related to a side company he/she operates. Often, these side enterprises are identical to the employer's, which means that the employee effectively utilizes the company's equipment to compete with the employer. A case in point, of how workers misappropriate corporate assets to compete with their employers, relates to a group of employees who stole company supplies and utilized the stolen goods in combination with their employer's

equipment to produce their product. After completing the product, the fraudsters withdrew it from their workplace and sold it in rivalry with their company. Another example involves a culprit who utilized his employer's equipment to operate his snow removal and excavation company. He often worked on weekends and after hours, manipulating the records that tracked mileage and equipment use (ICAI, 2008; Wells, 2017).

Adelphia's lawsuit is perhaps one of the worst financial scandals perpetrated at a public firm. Adelphia grew to become the sixth biggest cable television operator in the United States, and by the end of 2000, it was delivering cable television and local telephone service to consumers in thirty-two states, along with Puerto Rico, via several consolidated companies (The SEC, 2002; USDOJ, 2002).

Between the middle of 1999 and the end of 2001, Adelphia tried to hide more than $2.3 billion in bank debt from its annual and quarterly consolidated financial statements by putting the debt on the books of its unconsolidated affiliates. Additionally, during about the same time, Adelphia misrepresented its performance in three critical parts of the "metrics" utilized by Wall Street to assess cable firms in press releases, including earnings reports and Commission filings: (i) the number of its customers, (ii) the scope of its cable plant, and (iii) its profits (The SEC, 2002; USDOJ, 2002).

Adelphia has employed deceptive misrepresentations and omissions of crucial facts to hide the Rigas family's widespread self-dealing since at least 1998. For example, the Rigas family compelled the public company to pay for vacation properties and New York City apartments used personally by the family, to develop a golf course on land primarily owned by the Rigas Family; and, to issue over $772 million in Adelphia common stock and over $563 million in Adelphia notes for the benefit of the Rigas Family (The SEC, 2002; USDOJ, 2002). Additionally, the family members concealed their actions and covertly routed $174 million in Adelphia cash to repay personal margin loans to members of the Rigas Family. This is the point at which the assets were misappropriated. While such assets (cash and shares) were meant to be utilized to conduct business, the company's senior executives abused their position to expand their personal wealth (The SEC, 2002).

Following that, when Adelphia failed to file its 2001 Form 10-K throughout the spring, the company's stock price plummeted from $20.39 per share on March 26, 2002, to $0.79 per share on June 3, 2002. Shortly afterwards, the majority of the Rigas family members resigned from their officer and director positions at Adelphia (The SEC, 2002). In 2004, Attorney General Gonzales announced the completion of two agreements that would result in the distribution of assets to the Adelphia Victim Fund, totaling more than $720 million in cash, shares, and Rigas Family real estate as compensation (USDOJ, 2004).

1.4. Corruption

Corruption is defined broadly as the misuse of entrusted authority for personal benefit. Golden et al. (2006) propose broadening that concept to include corporate and private gain. However, Black's Law Dictionary defines *corruption* in two ways: 1) illegality; a malicious and dishonest purpose of circumventing the law's restrictions; and 2) the conduct of an official or fiduciary who illegally and maliciously utilizes his position or character to get some profit for himself or another person, in violation of his responsibility and the rights of others. According to Wells (2017), corruption manifests itself in various ways, ranging from executive salary disputes to payments to local or foreign government officials and their family members. Corruption schemes are classified into four categories: bribery, illegal gratuities, economic extortion, and conflicts of interest.

1.4.1. Bribery

Bribery is described as the act of offering, donating, receiving, or soliciting anything of value to sway an official act. By using the word "official act," classic bribery legislation refers to payments paid to influence the actions of government agents or employees. This is precisely what occurred in the case of Art Metal USA. The furniture supplier bribed government inspectors to accept inferior products. In a commercial bribery scheme the payment is made without the employer's approval. Examples of commercial bribery include the receipt of illegal money in exchange for exerting influence over a business transaction. Additionally, promising a payment might be seen as a bribe, even if the criminal payment is never delivered (Wells, 2017). Most businesses are subject to some degree of fraud. Additionally, there is anecdotal evidence of fraud epidemics in companies when a fraudulent activity becomes entrenched as accepted behavior. Consider the

bribery scandal at Siemens.[6] According to one media story, illicit bribe payments were commonly accepted at Siemens and were recorded the same way as any other line item in the financial accounts (Schubert & Miller, 2008).

1.4.2. Illegal gratuities

Gratuities are comparable to bribery schemes in that something valuable is provided to an employee to reward rather than influence a choice. In an unlawful gratuities scheme, a decision benefits a specific individual or business. This judgment is unaffected by any compensation. The party that profited from the choice then compensates the decision-maker. For instance, in one case, a power company employee granted a multimillion-dollar building contract to a particular vendor and then received a vehicle as a reward (Wells, 2017).

1.4.3. Economic extortion

Economic extortion is a type of corruption that involves pay-up-or-else tactics. Whereas bribery schemes include an offer of cash to influence a business decision, economic extortion tactics occur when one individual demands payment from another. Refusing to pay the extortionist leads to damage, such as company loss. For example, in one situation, an employee requested money from suppliers and granted those suppliers subcontracts on several projects in exchange for payment. If suppliers refused to pay the employee, subcontracts were assigned to competitors or withheld until the fraudster received his money (Wells, 2017).

1.4.4. Conflict of interest

Conflicts of interest are more readily avoided than recognized. Internal controls make it far more difficult for staff to perpetrate such schemes. A proactive strategy would require staff to submit an annual disclosure statement. Comparing the provided names and addresses to the vendor list may expose actual or apparent conflicts of interest. It is prudent to communicate with workers on their other business interests (Wells, 2017).

According to Wells (2017), a conflict of interest exists when an employee, manager, or executive has an undeclared economic or personal stake in an organization-damaging transaction. As with

[6] Siemens is a German multinational conglomerate and the largest industrial manufacturer in Europe, with headquarters in Munich and branch offices worldwide. The corporation's primary divisions are Industry, Energy, Healthcare, and Infrastructure.

other types of corruption, conflict schemes include an employee abusing his or her authority to damage the firm. Most conflict situations arise when the fraudster conceals an economic interest in a transaction, although the concealed interest does not have to be economical. In certain instances, an employee works against the company's best interests to help a friend or family, even while the fraudster gets no financial advantage from the transaction. In one case, management divided a large repair project into multiple smaller jobs to avoid the need for competitive bidding. As a result, the manager could allocate contracts to his brother-in-law. While there was no evidence that the manager benefited financially from this arrangement, his activities constituted a conflict of interest.

Between at least 1995 and 2004, senior executives at Kellogg Brown & Root LLC (KBR), US-based, and others devised and executed a scheme to bribe Nigerian government officials to facilitate the acquisition of multiple contracts, totaling more than $6 billion, to build liquefied natural gas production facilities on Bonny Island, Nigeria. The contracts were awarded to a four-company joint venture, of which KBR was a part. To disguise the unlawful payments, KBR and others engaged in phony consulting or services agreements with intermediaries who funneled their ostensibly legitimate fees to Nigerian authorities via a joint venture. KBR and others conducted this plan via the joint venture by employing a Gibraltar shell company managed by a UK-based solicitor ("the UK Agent") and a Japanese trade business ("the Japanese Agent") as conduits for bribery (USDOJ, 2009).

Halliburton, KBR's parent company, failed to establish adequate internal controls on international sales agents and the FCPA[7], and to maintain and enforce the controls that it did establish. As a result, Halliburton could not identify, discourage, or prevent KBR's infractions. Numerous Halliburton and KBR documents and records included incorrect information about, among other things, the UK Agent and the Japanese Agent, as well as the payments paid to them because of the program (USDOJ, 2009).

KBR admitted to conspiring with joint venture partners and others to violate the FCPA by approving, promising, and paying bribes to various Nigerian government officials, including executive branch officials, and the Nigerian national petroleum corporation officials, to acquire

[7] Foreign Corrupt Practices Act

the contracts. KBR pleaded guilty to four FCPA offences in connection with the joint venture's payment of tens of millions of dollars in consultation fees to two agents to bribe Nigerian government officials. KBR admitted that at critical points prior to the award of the contracts, KBR's former CEO, Albert Jack Stanley, and others, met with three successive former holders of a top-level executive branch of the Nigerian government to request that the officeholder designate a representative with whom the joint venture should negotiate bribes to Nigerian government officials. After negotiating bribe amounts with the officeholders' representatives, Stanley and others agreed to engage the two agents to pay the bribes. According to court filings, the joint venture paid around $132 million to the first agent, a consultancy firm based in Gibraltar; and more than $50 million to the second agent, a worldwide trading firm located in Tokyo, Japan. KBR confirmed that it planned to utilize a portion of the money paid to these agents to pay bribes to Nigerian government officials. To U.S. District Judge Keith P. Ellison in federal court in Houston, KBR pled guilty to a five-count criminal information. KBR was sentenced to pay a $402 million criminal penalties as part of the plea bargain (USDOJ, 2009).

1.5. Why committing fraud?

1.5.1. Fraud triangle and fraud diamond

Numerous theories and models have been proposed to address this subject, one of which is the fraud triangle. According to Donald R. Cressey's fraud triangle, three elements must exist: incentive, opportunity, and rationalization for first-time fraudsters (Rezaee & Riley, 2002; Golden, et al., 2006). International standards also recognize this triangle. SAS 99, for example, lists the same three risk categories and regards them as critical circumstances that are often present when fraud occurs. However, while academics have validated his concept, it has not yet made its way into practice when it comes to building fraud prevention initiatives (Wells, 2017).

Cressey also became interested in embezzlers, whom he dubbed "trust violators." He was particularly interested in the circumstances surrounding their succumbing to temptation. As a result, he omitted people who accepted their employment to steal from his investigation. Based on his interviews, he constructed the fraud triangle, which is still considered the traditional model for occupational offenders. He based his theory on the premise that trustworthy individuals would violate the trust bestowed upon them when confronted with a "non-shareable problem." The

concept of a non-sharable problem is defined as a financial issue characterized by incentive and pressure (Wells, 2017).

Incentive and pressure:

Management or other personnel may be enticed or pressured to commit fraud. When individual, divisional, or corporate performance substantially impacts compensation or promotion, people may have an incentive to manipulate outcomes or exert pressure on others to do so. Additionally, pressure may come from investors, banks, or other sources of finance's unreasonable expectations (Rezaee & Riley, 2002; Golden, et al., 2006).

Within an organization, incentives and pressure can take many forms: bonuses or incentive pay that account for a significant portion of an employee's or group's compensation; triggers built into debt covenants tied to share price targets and levels; significant stock option awards distributed throughout the organization, but especially to top management; and aggressive earnings-per-share and revenue targets set by top management and communicated to analysts, investment bankers, and others (Rezaee & Riley, 2002; Golden, et al., 2006).

Determining the existence and magnitude of these pressures or incentives is one of the auditor's objectives in assessing the risk of misstatements due to fraud. Crucially, research shows that some individuals will take extraordinary measures to meet their demands. Further, when the other components of the fraud triangle are present, the capacity to meet those requirements by unethical means increases (Rezaee & Riley, 2002; Golden, et al., 2006).

Opportunity:

Circumstances may occur that allow management or other staff members to conduct fraud. When such possibilities present themselves, persons who would not normally engage in dishonest behavior may be enticed to do so. Even people under duress and sensitive to incentives to commit fraud do not pose a severe danger to an organization until they have a chance to act on their needs. There must be an opportunity to conduct fraud, and the fraudster must feel the crime can be performed without consequence. Such possibilities may exist due to the absence or ineffectiveness of controls, a lack of supervision, or an insufficient division of roles (Rezaee & Riley, 2002; Golden, et al., 2006).

Additionally, opportunities may be inherent in the business's nature, size, or structure. Certain transactions and types of balances or accounts lend themselves more readily to forgery or manipulation than others. Particular business and organizational structures may be more impenetrable and prone to abuse. Additionally, some asset classes are more susceptible to misappropriation. In some high-profile incidents of financial statement fraud, the opportunity existed due to management's participation in the internal control system and its ability to bypass or circumvent existing measures (Rezaee & Riley, 2002; Golden, et al., 2006).

Rationalization and attitude:

Certain people are predisposed to engage in deception. With all other variables being equal, a person's proclivity for deception is determined by their ethical principles and circumstances. Both internal and external influences drive ethical conduct. External causes may include employment uncertainty, such as downsizing; or a hostile work environment, such as being passed over for advancement. Additionally, the external environment includes the tone at the top. When fraud occurs, and management fails to react correctly, others may think that the problem is not treated seriously and that they can get away with it (Rezaee & Riley, 2002; Golden, et al., 2006).

However, Wolfe and Hermanson (2004) expand the fraud triangle into a fraud diamond by positing capability as a fourth criterion that is often present when fraud occurs. Capability refers to the essential characteristics and abilities to perpetrate fraud. According to the authors, there are specific characteristics for fraud, mainly when significant quantities or a lengthy period are involved. First, the individual's position or role inside the firm may enable him or her to create or exploit a fraud opportunity not accessible to others. Second, the proper individual for fraud is intelligent enough to recognize and exploit internal control gaps and maximize the benefit of position, function or permitted access.

1.5.2. Other motivations

The theories mentioned above speculate on and propose the events and elements that contribute to fraud. However, in this section, a thorough assessment of the literature from top journals[8] has been undertaken to accomplish the research's objective. According to Wells (2017), senior managers (CEOs, CFOs, and others) and business owners may commit fraud for a variety of reasons,

[8] Top journals are journals with at least three stars based on the journal ranking of ABS 2018 and 2021.

including concealing actual business performance to understate or overstate results, as was the case with Enron. This scandal occurred because management wanted to attract investors and boost credit ratings (USDOJ, 2002; The FBI, 2002). Preserving personal status/control to avoid admitting the failure of their strategies due to their egos and preserving personal income/wealth is another reason why management commit fraud. The case of Adelphia and the Riga family is good evidence as the defendants committed fraud to repay personal loans to increase their wealth (The SEC, 2002).

Additionally, Wells (2017) suggests that business performance can be overstated for various reasons, including meeting or exceeding stock market analysts' earnings or revenue growth expectations, adhering to loan covenants, and increasing the amount of financing available through asset-based loans. In contrast, performance can be understated for various reasons, including deferring surplus earnings to the next accounting period because the current accounting period has no reward for additional performance. Moreover, US Attorney Christopher J. Christie, adds value to the "why commit fraud" literature by stating that virus programmers are empowered by technology and revel in the excitement of wreaking havoc, as the Melissa virus case revealed (USDOJ, 2002).

It is evident that there is no one specific motivation to commit fraud. The literature demonstrates a variety of reasons for deception. For instance, Bell and Carcello (2000) and Tayler and Bloomfield (2011) indicate that when a weaker internal control is framed for monitoring the firm's actions, it encourages managers to prioritize their interests, thereby increasing their proclivity to engage in fraudulent reporting behaviors. In fact, this was the case with KBR. The parent company failed to establish adequate internal controls on international sales agents and to maintain and enforce the controls that it did establish (USDOJ, 2009). In contrast, Liu et al. (2015) propose that when a business implements internal controls for monitoring reasons, managers' conduct is adversely impacted but favorably impacted when controls are implemented for coordinating purposes.

Furthermore, due to the high market value of equity securities, corporate management is under increased pressure to meet profits or other performance objectives, particularly in reaction to analyst expectations. Failure to meet such standards may result in severe reductions in market capitalization and, consequently, lower remuneration for managers whose salary is contingent on

meeting earnings or stock-price targets. The harsh nature of the stock markets has placed enormous pressure on corporate management to 'cook' the numbers. As a result of responding to such demands, management's actions may become questionable and hence may sometimes result in or constitute fraud (Public Oversight Board, 2000). Similarly, Bell and Carcello (2000) argue that an excessive focus on profits predictions and aggressive management attitudes toward financial reporting, combined with rapid growth and a poor control environment, were significant markers of managerial motivation for false financial reporting.

According to Uretsky (cited in Koornhof & Du Plessis, 2000), it is essential to understand how and why management fraud occurs not only at the organizational level, but also at the level of individual and group behavioral patterns. Cohen et al. (2010, p. 272) quote Albrecht et al. (1982), who provide three explanations for a crime, one of which is the social aspect. Indeed, throughout the last century, psychologists and sociologists struggled to comprehend the inner workings of financial criminals. In 1939, Edwin Sutherland stated that an individual's nature has no bearing on his or her proclivity to perpetrate such crimes. Rather, he believed that economic crimes emerge inside an organization's conditions and social relationships. Sutherland also made the insightful observation that crime is not limited to the lower classes and social misfits but is widespread, particularly in the realm of financial fraud. Throughout the last few decades, compelling research has claimed that two variables should be addressed when studying the fraudster's psychology and personality (Golden, et al., 2006):

- A person's biological characteristics, which vary significantly and impact behavior, particularly social conduct; and
- The social characteristics that are derived from and determine how the individual interacts with other individuals.

However, various individual-level variables have been examined to help explain why individuals participate in unethical organizational activity. Moore et al. (2012) find that an individual's proclivity for ethical conduct is a significant predictor of a wide variety of unethical actions necessary to organizations. Moreover, Davis and Pesch (2013) discovered that when the three characteristics proposed by the fraud triangle are combined with an individual's readiness to tolerate fraudulent activity, the behavior transitions from honest to fraudulent.

Academic scholars and researchers extensively investigate fraud, analyzing its occurrence from both business and personal standpoints. However, there is a notable scarcity of studies that delve into the social factors that contribute to fraudulent behavior. The purpose of this chapter is to examine the occurrence of fraud and its connection to individual behavior, with a particular focus on utilizing the theory of planned behavior (TPB) and augmenting it with three additional factors. The following section presents a comprehensive review of literature on behavior and explores the influence of social factors on behavior, including an investigation of the theory of planned behavior and other supplementary factors; to construct a new theoretical framework. Consequently, the initial research question that is expected to be examined is as follows:

R1: What are the social factors influencing fraudulent behavior?

2. Behavior and social factors

2.1. Behavior definition and why they are performed

Accounting and auditing scholars have developed several theories for analyzing employee-employer relationships. In their study, Morales-Sánchez et al. (2019) examine agency theory to analyze the organizational benefits associated with the ethical behavior of employees. Auditors work as agents in audit firms where partners (principals) direct and plan the audit procedures. Auditors are required to follow the plan in this case and notify their partners if their files contain any deficiencies or discrepancies. Thus, auditors are theoretically responsible for ensuring the information's reliability and truthfulness. If auditors breach this process unethically, a wrong audit opinion may be issued, leading financial statement readers to make a wrong decision. Partners' confidence in auditors benefit the audit process and reduces costs by reducing partner supervision time.

While scholars frequently focus on unethical behavior and its adverse effects on organizations, studies examining the social aspects of unethical behavior are rare. The term *unethical behavior* has a variety of connotations. In other words, what may be considered unethical in one company may be considered ethical in another, and what may be considered unethical in one country may be considered ethical in another. One could argue that behavior is considered ethical or unethical if it is justified and if it seeks to promote happiness for all those affected by it (Mill, 2009). On the other hand, *ethical behavior* can be defined as any action that adheres to a set of universal

application of ethical principles to all humans, regardless of context or circumstance (Hill, 2013). Additionally, *ethical behavior* is defined as individual behavior that is governed by or evaluated by generally accepted moral standards of behavior (Treviño, et al., 2006, p. 952). Unethical behavior represented here by fraudulent behavior is defined as:

a) committing fraud,
b) not adhering to the commercial laws and regulations, and
c) not adhering to the company's internal financial policies.

Bandura (1977, 1997) proposes that individuals' behavior is influenced by their perceptions of their ability to perform the desired behavior rather than their actual abilities, a concept referred to as self-efficacy. Nevertheless, we cannot assume that organizational norms and values do not affect an employee's behavior (Treviño, et al., 2006). Similarly, Adams et al. (2001) assert that employees in organizations with a code of ethics feel more ethical, encouraged, and supported to engage in ethical behavior. However, when employees act ethically, they do so because they believe it is the right thing to do regardless of their control or reward systems; employees will continue to act ethically even if the control mechanisms are removed (Morales-Sánchez, et al., 2019). In contrast, employees in Enron, at all levels, acted unethically (cited in Kulik et al. 2008), even though Enron had an extensive code of ethics (Johnson, 2003). One could argue that organizations and their internal environment may foster an artificial relationship between employees themselves or between employees and organizations, particularly during intense competition and when social network relationships are weak. When such a false relationship is established, unethical behavior spreads throughout the organization due to the absence of ethical constraints; consequently, employees will act unethically to win their competitions (Kulik, et al., 2008).

Numerous explanations for unethical business behavior have been advanced in research, including a simple lack of consciousness of the consequences of business decisions. However, little effort has been made to explain why people continue to make illegal or unethical business decisions despite their knowledge that it is a crime to do so. Moreover, several studies examine the impact of culture, laws and regulations, and religiosity on behavior. The majority of these studies examined everyday activities, such as reporting crimes to police (Kuo, et al., 2012), sex

(Adamczyk & Hayes, 2012), and fastening seat belts while driving (Acemoglu & Jackson, 2017), while only a few examined the effect of these three factors on workplace behavior.

Each behavior, however, should have a legitimate reason for being performed, a process referred to as rationalization. The cause of rationalization is cognitive dissonance, a state of discomfort caused by questionable behavior, and rationalization is how this distress is alleviated (Beauvois, et al., 1993). According to social cognitive theory, when people's self-regulatory abilities function correctly, they avoid actions that violate their moral standards because they believe they would be ashamed (Moore, et al., 2012). However, rationalization is thought to play a significant role in explaining how individuals commit human atrocities, such as corporate wrongdoing and corruption, as a variety of factors influence human behavior, including an individual's capabilities, personality, and the personalities of those around him or her, culture, the surrounding environment (Gastil, 1961), family, school, and media (Ristea, 2013). Additionally, Fishbein and Ajzen (1975) suggest that two factors can influence behavior: attitude and norms, to which Ajzen (1991) added perceived control.

The following section discusses the theory of planned behavior (TPB), a theory developed by Ajzen (1991) to help predict human behavior, which sits at the core of this study. Although this theory suggests three social factors that influence behavior, the framework used in this research extends and incorporates three additional social factors (culture, religiosity, and law awareness).

2.1.1. The theory of planned behavior overview

The theory of planned behavior has been used to investigate behavioral intentions and behaviors in various settings, including course selection (Randall, 1994), volunteer work (Harrison, 1995), consumption behavior (Fukukawa & Ennew, 2010), financial decision-making (Koropp, et al., 2014), and auditors' judgment (Cyr, et al., 2020). The theory of planned behavior is an extended version of the theory of reasoned action (Fishbein & Ajzen, 1975), which assumes that human social behavior emerges naturally and predictably from people's information or beliefs about the behavior under consideration which are informed by various experiences, including formal education and interactions with family and friends. Individual differences, such as personality, can influence people's experiences and the sources of information they encounter, and their interpretation and retention. As a result, individuals with divergent social backgrounds or personality characteristics are likely to hold divergent beliefs (Fishbein & Ajzen, 2010). However,

the primary goal of the theory of planned behavior is to predict and explain an individual's behavior (Ajzen, 1985).

According to Ajzen (1985, 1991), the primary and most accurate factor to predict behavior is the person's intention to engage in or abstain from that behavior, which is the central factor of the theory of reasoned action. The underlying assumption is that intention encompasses all factors that motivate behavior. In this instance, *intention* refers to evidence of an individual's intention to perform a behavior. The more determined an individual is to engage in a particular behavior, the more likely that individual will do so. The term *behavioral intention* has been used to describe an individual's sense of how likely they are to do something. However, it is widely agreed that people cannot act on their intentions because they do not have the skills or abilities they need. Thus, while the intention is the best predictor of behavior, the theory suggests that it is also necessary to consider one's skills, abilities, and behavior control. As a result, individuals behave in accordance with their intentions, possess necessary skills and abilities, and are not bound by environmental constraints (Ajzen, 1991; Fishbein & Ajzen, 2010)

Ajzen (1985) and Fishbein and Ajzen (2010) suggest that intentions comprise four distinct components: the behavior, the object to be targeted, the situation, and the time. Each of these components varies in terms of specificity. At the most fundamental level, a person intends to perform a specific action concerning a specific object in a specific situation at a specific time. For instance, a person plans to play volleyball (behavior) with his friends (target) on Tuesday (time) in an open yard (situation). While identifying the levels of specificity for the target, situation, and time dimensions is relatively straightforward, the behavioral dimension presents a more significant challenge. As a result, one could argue that, as rational beings, people evaluate the information available before deciding on a course of action. They consider the potential positive and negative consequences of the behavior, the opinions and reactions of essential people, and the extent to which the individual controls the behavior.

Attitudes, norms, and perceived behavioral control contribute to predicting behavioral intentions. Perceived behavioral control was incorporated into the theory to account for potential barriers/opportunities to achieving the desired outcome. Generally, the more positive an individual's attitude and subjective norms are about behavior, and the more control they think they have over their behavior, the more likely they are to do it. However, the degree to which each

component affects the intention will vary across behaviors and situations (Ajzen, 1985; Ajzen, 1991; Fishbein & Ajzen, 2010). To elaborate, consider two professors at a particular university, one male and one female, both of whom value attending a conference and believe that they are capable of doing so, but there is social pressure to abstain. If males' intentions to attend the conference are primarily determined by perceived norms, while attitudes determine females' intentions, then it is expected that the female professor to attend while the male professor will not (Fishbein & Ajzen, 2010). Additionally, a person will want to behave in a certain way if they feel good about it and feel pressure from others, but they may not intend to perform the behavior if they believe they lack control over it (Fishbein & Ajzen, 2010). Figure 1 illustrates the theory by depicting behavioral intentions as a function of three variables: attitude, subjective norms, and perceived behavioral control.

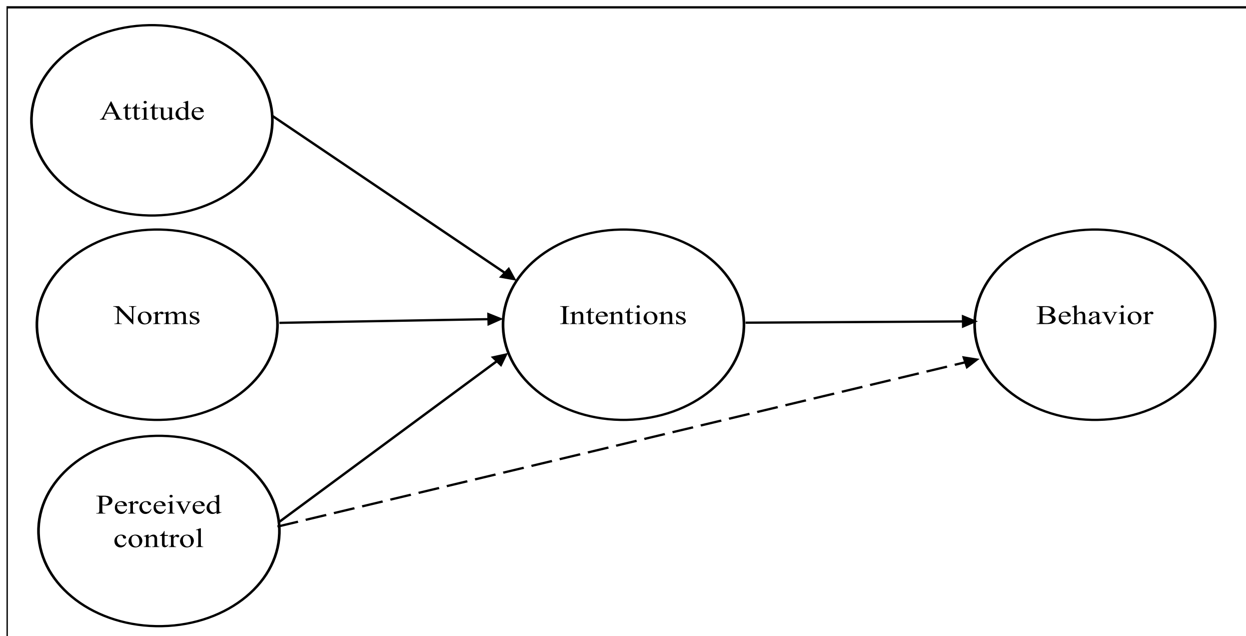


Figure 1: Theory of planned behavior (Ajzen, 1991, p. 182)

The degree to which people intend to perform a behavior can be determined by asking how strongly they intend to do so or how likely they are to do so (Fishbein & Ajzen, 1975; Fishbein & Ajzen, 2010). However, Ajzen (1991) suggests three conditions that may predict the behavior. First, the measures of intention and perceived behavioral control must be compatible with the behavior that is to be predicted. That is, intentions and perceived control must be evaluated concerning a specific behavior under consideration, and a specified context must be identical to the one in which the behavior will occur. The second condition to accurately predict behavior is that intentions and

perceived behavioral control must remain stable between assessment and observation of the behavior, as intervening events can alter intentions or perceptions of behavioral control, which results in the inability of the original measures of these variables to predict behavior accurately. Moreover, predictive validity depends on the degree of precision that participants believe they have in controlling their behavior. Predicting behavior based on perceived behavioral control should improve where perceptions of behavioral control realistically reflect actual control. Similarly, Fishbein and Ajzen (2010) assert that the measure of intention must be compatible with the behavioral criterion in terms of generality or specificity, which is perhaps the most critical requirement for predictive validity, given the occurrence and frequency of various behaviors. To address the issue of predictive validity, the researcher may explain the test or scale to the sample while they respond to actual behavior. For instance, an investigator could ask students to forecast the number of hours they intend to spend studying courses based on their actual time spent in the previous few weeks.

At the next level, to better understand intentions by examining their determinants, a review of the literature based on studies conducted and published in different journals, mainly top journals, is necessary.

2.1.1.1. Attitude

According to Fishbein and Ajzen (1975) and Ajzen (1985, 1991), an *attitude* refers to an individual's willingness to engage in a particular behavior. While this is the case, it is expected that as the individual perceives the behavior as favorable, the person is more likely to perform it. Attitude is associated with how an individual believes in a particular behavior. For instance, if a new product is introduced to the market and campaigns promote it as a healthy product, the consumer is expected either to have a positive attitude toward the product because it is healthy, or a negative attitude toward the product because it is only available to a specific group. In both cases, it is clear that attitudes are influenced directly by beliefs. Individuals' experiences result in numerous contradictory ideas about various objects, actions, and events throughout a person's life. These beliefs may be derived directly from observation or through inference processes. Certain beliefs may endure over time, while others may be forgotten, and new ones formed. Additionally, moods and emotions might have an effect on attitude. To illustrate, if a person has a fear of flying, he or she may avoid airplanes when traveling (Fishbein & Ajzen, 2010). However, to meet the

aims of this research, *attitude* is defined as the willingness and favorableness of an employee to engage in fraudulent behavior.

Although someone may have a vast number of beliefs about any given object, it appears that just a small number of those beliefs are used to determine his/her attitude at any given time. According to studies on attention, apprehension, and information processing, an average person can only pay attention to or comprehend five to nine pieces of information at a time. As a result, it is possible to claim that a person's attitude toward an object is predominantly governed by no more than five to nine beliefs associated with it (Fishbein & Ajzen, 1975). However, the model asserts that each belief establishes a link between an action and an outcome. The connotation of the outcome, whether positive or negative, influences the attitude directly regarding the perceived probability that the action will lead to the desired event (Fishbein & Ajzen, 2010).

Attitudes toward behavior are assessed using a Likert-scale containing seven points or alternatives. Typically, responses are scored on a scale ranging from 1 to 7 (from 1 to 3 is the negative side while 4 is neutral and from 5 to 7 is the positive side), and the sum or mean of all scales is used to determine the individual's attitude. The higher the score, the more supportive the respondent is toward the attitude object. Likert-scale, applied to this model, is usually constructed by adjective scales such as strong-weak, fast-slow, large-small. However, Cronbach's coefficient alpha, which can range from 0 to 1, is typically used to assess an attitude scale's internal consistency. A coefficient of 0.75 or greater is considered to indicate satisfactory internal consistency (Fishbein & Ajzen, 2010).

Fukukawa and Ennew (2010) examine the factors influencing consumer behavior in the United Kingdom. The authors distributed 1,250 questionnaires to participants (respondence rate 27.52 percent), asking them if they would engage in unethical consumer behaviors, such as altering a price tag, pirating software, or stealing a hotel's high-quality towel. Four variables were tested, one of which is attitude, and analyzed by adopting conformity factor analysis. According to the research, attitude has no significant effect on the intention to perform a behavior. Similarly, Cyr et al. (2020) examine, by multivariate analysis, the factors influencing an auditor's proclivity to accept client-preferred accounting methods that are acceptable by standards but do not accurately depict financial results. A random sample of 70 auditors (respondence rate 40 percent) from firms

other than the Big Four were chosen. The results suggest that attitude and intention are not significantly correlated.

In contrast, Buchan (2005) investigates the factors influencing the ethical behavior of public accountants in one state in the northeast of the United States using a survey of five accounting firms with a restricted access to accountants, resulting in 95 responses. The model was validated using the partial least squares method. The findings indicate that public accountants' attitudes have a sizable impact on their ethical behavior. Likewise, Carpenter and Reimers (2005) distributed questionnaires to 73 MBA students, at one of the largest state universities in the United States, who had several years of practical experience, providing them with a scenario that predicted their behavior as management toward fraud. The findings indicate that attitude has a direct impact on one's intention to engage in a particular behavior.

Additionally, Kulik et al. (2008) assert that attitudes directly impact employee behavior in highly competitive environments. The evidence demonstrates that "losers" are more likely to emulate "winners' behavior", even if that behavior is unethical. The study examined the Enron case using social psychology theories, specifically the theory of planned behavior. Additionally, Cohen et al. (2010) analyzed 39 fraud cases in the United States from 1992 to 2005 by analyzing communication journals. The authors demonstrate that in all the 39 corporations investigated, management's attitude encouraged them to engage in fraudulent behavior to increase their living standards or protect their reputation. These investigations differ from the other studies examined for this literature review in that they used real-life cases, rather than the Likert-scale proposed by Ajzen (1991) and Fishbein and Ajzen (2010) to predict behavior.

2.1.1.2. Subjective norms

There is widespread agreement that the social environment influences people's intentions and behavior. *Social norms*, in general, refer to what constitutes acceptable or permissible behavior within a group or society. However, Fishbein and Ajzen (1975, 2010) and Ajzen (1991) define a *subjective norm* as a person's perception of what most important people believe he should or should not do. Subjective norms, the theory asserts, also exert a direct influence on intentions. One's beliefs determine the motivation to act about whether significant others would support the behavior. Significant referents can be individuals or groups and will undoubtedly vary according

to context. As a result, for individuals who believe their significant others will encourage such behavior, the opportunity to engage in that behavior is high. However, for the aim of this research, *subjective norms* are defined as the impact of people (including family, friends, colleagues, etc.) on an employee's perception to engage in fraudulent behavior.

French and Raven (cited in Fishbein & Ajzen 2010) suggest that others can influence an individual's behavior through at least one type of the following powers:

a) *Reward power:* refers to the willingness to submit to social pressure to be rewarded for a particular behavior.

b) *Coercive power:* refers to the fear of being sanctioned by a social agent for failing to adhere to a particular behavior.

c) *Legitimate power:* refers to the belief that a social agent possesses greater authority due to his or her role within a particular group.

d) *Expertise:* refers to a social agent's compliance with a particular behavior due to his or her knowledge, expertise, abilities, or skills.

e) *Referent power:* refers to conformity to behavior as a result of inspiration to be like the social agent.

As with the attitude measure, norms must be consistent with or adhere to the intention and behavior measurements in terms of action, target, context, and time. Additionally, subjective norms are measured using a seven-point Likert-scale or an alternative. A higher score indicates that norms have a more significant influence. Norms are quantified using a scale ranging from 1 to 7 (with 1 to 3 being negative, four being neutral, and 5 to 7 being positive) to indicate the level of how norms affect intentions or behavior by answering questions, such as: "The majority of people who matter to me urge me to engage in the vignette's behavior;" or "The majority of individuals whose opinions I respect encourage me to engage in the vignette's behavior" (Fishbein & Ajzen, 2010).

However, social norms are the second-best predictor of intention to participate in an ethically dubious activity. According to Fukukawa and Ennew (2010), when consumers experience increased external pressure/encouragement to engage in ethically dubious activity, their intention to engage in the behavior is likely to be more significant.

The extent to which norms influence intention varies according to the situation. Chang (1998), for example, demonstrates a nonsignificant effect of subjective norm on intentions to make an illegal copy of a software, while Cox et al. (1990) reports that an adolescent frequently learns to shoplift from other adolescent shoplifters, implying that the influence of others is more subtle than simple social pressure and is related to broader concepts of social participation. Similarly, Babin and Griffin (1995) show that peer pressure to engage in such activity considerably affects shoplifters.

In the corporate setting, Davis and Pesch (2013) argue that firm culture, in addition to key referents, continues to influence fraudulent behavior in the corporate setting. Kulik (2005) similarly establishes that Enron's leadership encouraged fraudulent behavior. Additionally, Ferrell and Ferrell (2011) state that Kenneth Lay[9] did not wish to return as CEO but was pressured and convinced to do so by his board friends, demonstrating the power of norms to influence behavior. Carpenter and Reimers (2005) suggest that behavior is influenced by the positive or negative feelings of those important to the manager. Similarly, results indicate that social pressure, more precisely, pressure from colleagues and shareholders, is associated with auditors' judgment subordination (Cyr, et al., 2020).

2.1.1.3. Perceived behavior

Indeed, by integrating the concept of perceived behavioral control, the theory of planned behavior distinguishes itself from the theory of reasoned action. Consistent with the emphasis on factors directly related to a specific activity, *perceived behavioral control* refers to individuals' judgments of how easy or difficult it is to perform the intended behavior (Ajzen, 1985; Ajzen, 1991; Fishbein & Ajzen, 2010). In other words, when an individual obtains behavioral control, his or her incentive to attempt increases, and as a result, intentions influence performance. To elaborate, if two people are equally motivated to learn an activity, the person who believes he or she can succeed is more able to adhere to it than the person who has doubts about his or her skills. Therefore, when a person has entire control over behavioral performance, intentions alone should be adequate to predict the behavior (Ajzen, 1991).

Moreover, it is considered that it reflects both prior experiences and predicted barriers. It is assumed to consider the availability of knowledge, abilities, possibilities, and other resources

[9] Kenneth Lee Lay was the founder, CEO and chairman of Enron.

necessary to accomplish the activity and any potential restrictions or challenges that must be overcome. Assuming that attitudes and perceptions of social pressure encourage behavior performance, the stronger the perceived behavioral control, the stronger the intention to conduct the desired behavior. Perhaps more importantly, if people think they lack control over the performance of a behavior, they may lack the motivation to engage in it even if they have a favorable attitude and perceive social pressure to do so. This perspective on perceived behavioral control is not novel nor exclusive to the theory of planned behavior. Indeed, it has a solid resemblance to Bandura's idea of self-efficacy, which relates to one's beliefs in one's ability to plan and carry out the courses of action necessary to achieve specified outcomes (Bandura, 1977; Bandura, 1997). However, for the aim of this research, *perceived behavior control* is defined as the perception of control that an employee feels like he or she has, and it is strongly influenced by the actual control given to that employee.

As with attitudes and norms, perceived behavioral control must be defined and assessed under the compatibility principle, which requires the same aim, action, context, and time aspects as the behavioral criteria. It may be quantified by directly assessing one's capacity to engage in a behavior. Perceived behavior is quantified on a scale ranging from 1 to 7 (with 1 to 3 being negative, four being neutral, and 5 to 7 being positive) to indicate the degree of having control over behavior by responding to questions, such as: "If I wanted to, I could easily perform this behavior" or "If I am a manager, I could do this behavior" (Fishbein & Ajzen, 2010).

According to Carpenter and Reimers (2005), perceived behavioral control has no observable effect on intentions and behavior. This might be due to the participants being placed in an unrealistic setting or their lack of experience. Similarly, Buchan (2005) asserts that the same element (perceived behavioral control) does not affect public accountants' willingness to engage in ethical action. On the other hand, Chang (1998) establishes that perceived behavioral control is a more accurate predictor of conduct than attitude, implying that the theory of planned behavior outperforms the reasoned action theory in predicting unethical behavior. Moreover, Fukukawa and Ennew (2010) indicate that perceived behavioral control considerably affects customers' problematic conduct. Furthermore, perceptions of behavioral control appear to be strongly and positively associated with intentions, as Cyr et al. (2020) demonstrate in the instance of auditors who subjugate their judgment to adopt client-preferred accounting techniques.

2.1.2. Culture

The discipline of business ethics has evolved as a critical area of research for international business. Among the several factors recognized as influencing business ethical views, most practitioners and scholars have identified culture as the primary factor driving the disparities in business ethical attitudes between countries. Additionally, culture is the most widespread and perplexing of the factors affecting consumer behavior. Individuals use consumer items to express cultural groupings and ideals, and manufacture and perpetuate ideas and lifestyles (McCracken, 1986). Numerous studies conclude that culture cannot be ignored when examining individual behavior or comprehending organizational behavior (Stulz & Williamson, 2003; Phau & Kea, 2007). According to Black (1976), *Culture* is "the symbolic dimension of social life, including expressions of what is true, good, and beautiful" (Cited in Kuo et al., 2012). Additionally, Boyd & Richerson define it as the transmission of knowledge, values, and other factors affecting behavior from one generation to the next (Cited in Stulz & Williamson, 2003). Furthermore, *culture* is defined as the distinctive attitudes and behaviors that distinguish social groups (Temin, 1997), whereas in this research it is defined as an individual's relationship with his loved ones and the appreciation of one's domestic environment.

Cultures vary significantly between countries, depending on how much an individual values individualism, which refers to personal preferences; or collectivism, which refers to group preferences (Daniels, et al., 2004). However, in countries with a high level of collectivism, culture has a more significant influence on behavior. Even though both Arabs and Jews live in the same country, a study reveals significant cultural differences. In particular, it has a sizable impact on organizational citizenship behavior and performance. However, this study is limited by its sample size, as it examines only teachers and excludes immigrants (Cohen, 2006). Nevertheless, Mensah (2014) suggests that the Caribbean, Pacific Islander, Latin American, and Middle Eastern clusters have a higher proclivity for corruption than the Anglo and European clusters, despite the first cluster's higher level of government legitimacy, implying that culture has a significant impact on perceived corruption.

A study sample of 191 students enrolled in advertising courses was used to understand and analyze how an organization's ethical culture may affect its employees' level of comfort and ethical behavior. The findings indicate that ethical culture has a significant impact on the behavior of

prospective employees, particularly when organizations change their ethical policies (Keith, et al., 2003). Additionally, Kaptein (2011) employs a multidimensional model of ethical culture dubbed the “corporate ethical virtues model” to examine corporate ethical culture. The model is constructed around several dimensions (clarity of ethical standards, ethical role modeling by management and supervisors, capability to act ethically, commitment to act ethically, visibility of unethical behavior, openness to discuss ethical issues, and reinforcement of ethical behavior) in order to assess an organization’s ethical culture. The findings indicate that an organization’s ethical culture is negatively related to the frequency of observed unethical behavior within the organization. In other words, a more ethical culture results in decreased unethical behavior. Similarly, Di Stefano et al. (2019) examine the effects of organizational culture on deviant behaviors in the workplace using a sample of 954 employees from 30 different enterprises (private and public). In this study, organizational culture is presented by:

a) Clan culture, which refers to a family-like business environment,
b) Adhocracy culture, which refers to environments where employees are required to adapt quickly to changes,
c) Market culture, which relates to environments where employee competition is intense; and,
d) Hierarchy culture, which relates to environments like the military, where each employee is required to perform specific tasks based on their position.

The findings indicate that organizational significantly affects employees’ deviant behaviors. Furthermore, when an organization has a healthy cultural climate and provides employees with the time, resources, and information necessary to act ethically, and when employees feel trust and respect in their work environment, and identify and endorse the organization’s norms and rules, the perceived frequency of unethical behavior toward customers will be lower (Zaal, et al., 2019).

However, authors in some cases used different proxies to represent culture. For example, Kuo et al. (2012) used educational attainment as a proxy for culture, whereas Stulz and Williamson (2003) used religion. Culture, among other factors, represented by the level of education, influences crime-reporting behavior. The authors find that less-educated individuals are less likely to report crimes to the police because educated individuals are more litigious, preferring formal social control over informal solutions (Kuo, et al., 2012). On the other hand, according to Stulz and Williamson (2003), culture can influence finance in at least three ways:

a) Its culture determines the values that prevail in a country; for instance, charging interest may be considered a sin in one country but not in another.
b) Culture influences institutions: for example, cultural values affect the legal system.
c) Culture affects how an economy allocates resources; to elaborate, religions that promote the purchase of churches or firearms divert resources away from productive investment.

Religiosity, which will be discussed in greater detail in the following section, is a critical component of a system of beliefs. Throughout history, religions have had a great deal to say about businesses and how they should be run.

2.1.3. Religiosity

Solidarity with a group refers to the extent to which that group influences an individual's views and behavior (Alden, et al., 2010). Garner (2000) argued that religious groups have varying degrees of power that can influence their members' conduct, and there is an increasing amount of research emphasizing the importance of social interactions and network links on social action and behavior. Throughout history, religious groups have had much to say about human rights and how to treat others. As Tawney (1952) demonstrates, religion forbade usury in the western medieval church, and the second Roman Catholic Church's Council of Lyons, in 1274, imposed excommunication not just for usurers, but also for anyone who would rent a house to a usurer. Jung (1960) defines *religion* as a fundamental sociocultural factor that is central to the psychological structure of the human personality. Geertz (1973), meanwhile, defines *religion* as a system of symbols that function to establish powerful, pervasive, and long-lasting moods and motivations through the formulation of concepts of a general order of existence, whereas James (1994) defines *religion* as the feelings, acts, and experiences of individual men in their solitude concerning whatever they may consider divine. While the relationship between religions and behaviors has been extensively examined in social life, it has received scant attention in the context of business. James maintained that a devout person with a healthy intellect would have a strong feeling of the goodness of life. Thus, James concluded that religious experience was beneficial, even for biological functioning.

Religion is distinct from religiosity in that the former is identical with a particular faith or creed, while the latter depicts religion's primary objective as guiding a person's life following religious role expectations (Weaver & Agle, 2002). Swinyard et al. (2001) defined *religiosity* as the degree

to which an individual holds and practices specific religious ideas and aspirations. Additionally, Kurpis et al. (2008) suggest that religiosity aids in the formation of a commitment to moral self-improvement. According to Saroglou (2011), four characteristics must be completed for a person to be considered religious. In summary, Saroglou believes that being religious requires the following:

a) *Belief*: Adhering to a set of beliefs regarding transcendent beings.
b) *Bonding*: Having self-transcendent, emotional experiences, generally through a ritual that strengthens one's connection to others and a deeper reality
c) *Conducting oneself*: Adhering to particular moral standards and exercising self-control to act in conformity with these standards.
d) Identification and affiliation with a particular group or culture.

However, *religiosity* is interpreted in this study as the extent to which a person adheres to and values his religion, which discourages him from engaging in fraudulent behavior.

The literature on the relationship between religion and numerous facets of social life has multiplied in recent years, including sexual behavior (Adamczyk & Hayes, 2012), health (Takyi, 2003), and morality (McKay & Whitehouse, 2014). To elaborate, religion has significant societal influence on private and public life. For instance, Yirenkyi (2000) reports that during the 1980s, Ghana's Christian churches have played a more active part in national politics than ever before. Additionally, Addai (1999) examines the relationship between religion and contraceptive use and concludes that religion significantly predicts contraceptive use. Moreover, religion has emerged as a significant predictor of HIV protective and risk behaviors in Africa. Garner (2000) informs, in research conducted in Edendale, South Africa, that some Christian churches encouraged their members to abstain from extra- and pre-marital sexual activity, consequently lowering their chance of contracting AIDS. Takyi (2003) examines the relationship between religious connections and AIDS behavior modification in Ghana and demonstrates that religion strongly predicts behavior modification.

There is a dearth of research on the effects of religion on business, particularly in corporate ethics. This deficiency may be explained by the inconsistency of empirical studies, as the nature of this relationship is complex (Craft, 2013) ; or it may be explained by the fact that one impediment to a comprehensive understanding of the relationship between religion and morality is researchers'

proclivity to privilege their cultural perspective on what constitutes a moral concern. To illustrate, some individuals believe that appropriate sexual activity is of essential moral importance, while others believe that other moral concerns are more pressing. The debate over whether morality requires religion is contemporary and ancient. Subsequently, many people do not leave their religious beliefs at work, similar to the idea that individuals' attitudes, values, emotions, abilities, and behaviors spill over and impact their thoughts, feelings, experiences, and actions in organizations. Indeed, a small number of organizational experts have found a strong correlation between religiosity and job outcomes. For example, Uhlmann et al. (2011) indicate that when individuals from a devoutly religious country were implicitly primed with phrases associated with divine redemption, they were more likely to do better on a labor task than those from a somewhat less religious country.

However, religion is a significant source of morality and impacts organizational ethical conduct (Weaver & Agle, 2002). Religion enables parents to instill shared ideals in their children. Families can pass on moral practices to future generations through repeated activities (Gomez-Mejia, et al., 2011). When a family is firmly affiliated with a particular religion, religious values impact how family members think and behave during regular business operations. In Islam, ethical business practices are founded on the Quran and the Prophet Mohammed's sayings and life (the Hadith); in Christianity, the Bible is the foundation (Old Testament and New Testament). To elaborate, the Quran prohibits fraud on numerous occasions, including "*give just measure and do not cause loss to others through fraud*" (Qur'an:26:181), while Zephaniah in the Bible (1:19) states that, "*On that day, I will punish everyone who leaps over the threshold and those who fill their master's house with violence and fraud.*" Additionally, the Qur'an and the Bible both encourage good deeds and behavior on various occasions; for example, the Bible of Peter (3:16) states "*having a good conscience, so that those who revile your good behavior in Christ may be put to shame*"; and the Qur'an (2:256) states "*...normal behavior clearly distinguishes itself from error..*".

Furthermore, both the Qur'an and the Bible may influence one's consumption decisions. For example, the Qur'an (2:219) condemns alcohol consumption, declaring, "*they inquire about intoxicants and gambling, say, there is considerable evil in both;*" and the Bible clearly states in Judges (13:4), "*therefore be careful and drink no wine or strong drink, and eat nothing unclean*".

Iannaccone (1998) conducts an excellent review of the evidence on how religiosity influences decision-making, including one's proclivity to commit crimes and abuse drugs and alcohol.

Kirchmaier et al. (2018) also found that religious persons are less accepting of ethical failures and that they often volunteer more hours. Additionally, Fathalla et al. (2019) explain how religion has influenced business operations by defining what is permitted as "*Halal*" and what is prohibited as "*Haram.*" These valued habits (halal actions) established the organization's underlying ideas and norms. Muslim respondents could articulate what they believe is the "*correct*" approach to various ethical dilemmas. For instance, they stated that the company was unwilling to negotiate business transactions if it meant increasing rates to cover commissions, unfairly boosting prices to final customers. Another instance is when management requested a "*Fatwa*" (a religious edict from a scholar) on the permissibility of investing in a business that would contravene religious beliefs. Additionally, "*Zakat*" is an obligatory charitable donation to the poor. The authors demonstrate that many interviewees claimed that paying "*Zakat*" to impoverished relatives satisfies charity and kinship-related purposes.

2.1.4. Law awareness

Numerous explanations have been advanced in the past for unethical business behavior, including a simple lack of awareness of the ethical implications of business decisions. Nonetheless, little effort was made to explain why people make business decisions despite their awareness of their unethical nature. The public response to unethical behavior by business executives has historically been to propose new laws or regulations governing various aspects of business operations at the local, state, and federal levels. To elaborate, if managers engage in illegal behavior that they are aware of or should be aware of, new laws may have the opposite effect and may increase the cost of doing business (Christensen, 2008). Black (1976) described *law* as dynamic conduct that can be quantified in terms of the quantity and extent of prohibitions, responsibilities, and other criteria imposed on individuals (cited in Kuo et al. 2012).

However, expressive law theories argue that laws can adjust human behavior by altering the social meaning of the targeted behavior and thus people's beliefs about how others will behave in the future (Cooter, 2000; Romaniuc, 2016). As a result, the law is supposed to change human conduct by altering individuals' returns from different kinds of behavior. According to McAdams (2000), states impose payoffs on individuals as punishments to make them cooperative in the dominant

strategy. In other words, changing behavior by law is possible. However, it starts as a first step with imposing penalties on individuals when they break the law, which aligns with Galbiati and Vertova's (2014) conclusion that laws are implemented to change some behavior by imposing material fines and penalties on individuals as punishments.

Typically, the law serves as the foundation for social standards incorporated into the schema and internalized. Thus, the law serves as the foundation for cognitive and, to a lesser degree, social learning ethical decision-making frameworks. However, legislation is typically the consequence of discourse. Often, the discourse alone will be enough to assist a person in determining the correct moral action to adopt. In other instances, mainly if the moral intensity is great, legislation may resolve at least a portion of the conflict (Christensen, 2008). Although law establishes the framework within which business operates and partially defines business people's roles within their organizations (Dunfee, 1996), some research indicates that decision-makers rely less on legal guidelines and more on their personal beliefs during the decision-making process (Hinkeldey & Spokane, 1985). Law is not a restraint on decision-making. Instead, it serves as the anchor for social agreement and moral traditions (Dunfee, 1996). Nevertheless, formal laws and public regulations are critical in governing how individuals interact daily.

Historically, economists have investigated the optimum design of rules and regulations by concentrating on their enforcement and incentive design. The obligation component of a formal rule is the conduct that the rule specifies individuals should keep, whereas the incentives component is concerned with the consequences of maintaining or breaching the required behavior (Galbiati & Vertova, 2014). Convery et al. (2007) demonstrate that the legal obligation to charge minimal fees for plastic bags is one of the most famous legislations in Europe, resulting in a significant fall in use and associated improvements in terms of garbage reduction and unfavorable landscape impacts. As a consequence, even low-cost incentives may induce significant behavioral changes. Additionally, DeAngelo & Charness (2012) notice that individuals respond strongly when law increases the projected cost of a given behavior.

However, several voices have emerged during the last two decades to challenge the premise that monetary incentives can modify people's behavior (Frey & Stutzer, 2007). Galbiati and Vertova (2014) observe that obligations significantly affect cooperative behavior even in the absence of incentives, which is consistent with other legal scholars and social psychologists' findings that

laws efficiently regulate human behavior through their enforcement structure and the types of questions they pose. Likewise, Dawes and Thaler (1988) argue that individuals often follow laws and norms because they are the right thing to do, rather than because of the monetary repercussions of breaking the rules and norms.

Businesses and individuals are assumed to be operating legally and ethically in this research. As a result, law awareness has been added to the theory of planned behavior to determine if it can predict behavior directly, or indirectly via intentions. The word *law awareness* refers to a person's awareness and perception of the consequences of engagement in fraudulent behavior. Similarly, Terry et al. (2020) examined how the visibility and illumination of a police vehicle influences motorist behavior. They found that increasing the visibility of police cars affects motorist behavior. To illustrate, drivers drop their speed when they see a police vehicle. Additionally, when drivers notice a red-light warning (police vehicle light), their lane shifting behavior rises because they are aware of the risk of blocking lanes when police employ red lights. One may claim that drivers altered their driving conduct to comply with the legislation as a result of the steep penalties and legal repercussions associated with breaching the law.

2.2. The theoretical framework

As previously noticed, and in accordance with previous research, it has been observed that culture, religiosity level, and law awareness can have an impact on human behavior. Consequently, the present study proposes the following framework:

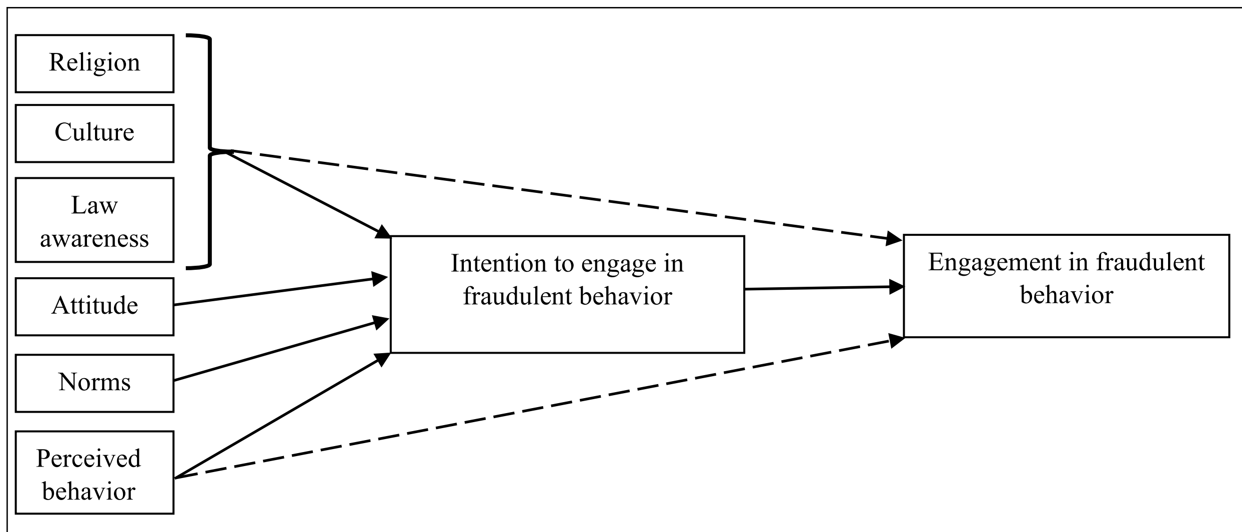


Figure 2: The theoretical framework

However, determining the appropriate methodology for a new framework is a difficult task; therefore, analyzing the methods used in previous research is an excellent place to start. To begin this process, a content analysis of academic journal articles on behavior and fraud was conducted. The papers were culled from Scopus and Web of Science using the keywords “behavior,” “theory of planned behavior,” “social aspects,” “fraud,” and “corruption.” A total of 880 articles were extracted from the population. Table 1 contains descriptive statistics about the extracted population.

Description	***Frequency***	*%*
Language wise:		
English language articles	856	97%
Spanish language articles	8	1%
Russian articles	5	1%
Articles in Other languages	10	1%
Total number of articles	*879*	*100%*
Journal classification wise:		
Four stars articles	26	2.9%
Three stars articles	53	6.0%
Two stars articles	54	6.2%
One star article	138	15.7%
Not classified journals	608	69.2%
Total number of articles	*879*	*100%*
Year wise publications		
Before 2005	106	12.1%
From 2005 to 2009	12	1.4%
From 2010 to 2014	29	3.3%
From 2014 to 2019	26	2.9%
From 2020 to 2022	33	3.7%
Total number of articles	*879*	*100%*

Table 1: Descriptive statistics of the population of the literature review

Based on these statistics, it is clear that the theory of planned behavior (TPB) application is increasing, as approximately 42 percent of the population was published after 2015—indicating that the theory is appropriate. However, due to the large size of the extracted population and language constraints, the following filtrations were applied:

a) exclusion of all articles written in a language other than English,
b) exclusion of all articles which were not published in top journals, and

c) exclusion of all articles published after 2022, as some of these articles may still be undergoing peer review.

Following these filtrations, a total of 79 articles were selected for analysis. The sample encompasses a variety of research areas. Table 2 summarizes the statistics for these articles.

Description	***Frequency***	**%**
Research area:		
Business & Management	16	20.3%
Environment & Agriculture	5	6.4%
Information Technology	3	3.8%
Learning and education	2	2.5%
Marketing	8	10.1%
Medicine and medication	11	13.9%
Personality and Social psychology	32	40.5%
Travel and tourism	2	2.5%
Total number of articles	*79*	*100%*
Type of research:		
Empirical research	69	87%
Theoretical research	10	13%
Total number of articles	*79*	*100%*
Empirical research:		
Case study	1	1.4%
Dataset	2	2.9%
Experiments	2	2.9%
Focus group	1	1.4%
Interviews	4	5.9%
Mixed methods	1	1.4%
Survey	58	84.1%
Total number of articles	*69*	*100%*
Analysis technique:		
Content Analysis	5	7.3%
Laboratory experiment	1	1.4%
Smallest Space Analysis (SSA)	1	1.4%
Structural Equation Modeling (SEM)	5	7.3%
Regression analysis	57	82.6%
Total number of articles	*69*	*100%*

Table 2: Descriptive statistics of the sample of the literature review

The primary research area in which TPB was used was personality and social psychology, followed by business and management which includes articles addressing fraud. It is apparent that scholars have utilized a wide array of methodologies in their investigations of the theory of planned behavior. The presence of diverse methodologies in this field is indicative of its multidisciplinary nature and the intricate characteristics of fraudulent behavior. Additionally, it highlights the dynamic shifts in research approaches that have occurred over the course of time.

The reviewed literature demonstrates a prevalent methodological approach characterized by the utilization of quantitative analysis. A multitude of scholarly investigations have employed surveys, experiments, and statistical modeling methodologies to quantitatively assess diverse dimensions of fraudulent conduct. Quantitative research has played a crucial role in establishing correlations, discerning patterns, and deriving generalizable conclusions pertaining to social factors and fraudulent activities. Around 87% of the aforementioned articles comprised empirical research, with the remaining articles adopting theoretical frameworks.

In contrast, there has been limited utilization of qualitative research methodologies in existing literature to acquire a more comprehensive comprehension of the intricacies associated with fraudulent conduct. Qualitative research methodologies, such as interviews, focus groups, and case studies, were employed to investigate the subjective experiences, perspectives, and contextual factors associated with fraudulent behavior.

Particularly, 58 research rely on survey methods, which is in line with Leavy's (2017) assertion that surveys are often used in the social sciences to investigate people's attitudes, views, and opinions, and report their experiences and activities. They all used the Likert-scale proposed by Ajzen (1991) and Fishbein and Ajzen (2010). However, the remaining articles used experimental methods and interviews. Regression analysis is the most frequently used analytical technique, with over 82 percent of the sample using it to analyze the data collected.

Conclusion

Although a universally agreed-upon definition of fraud is absent in scholarly literature, this study defines fraud as any illegal action or abuse which harms others with or without intent to harm them, as well as any action that misleads investors and other financial statement users. Previous

studies have examined multiple motivations for engaging in fraudulent behavior, yet only a limited number of them have focused on exploring the social factors involved.

In this chapter, an analysis was conducted on Ajzen's theory of planned behavior. As previously indicated, the theory under consideration represents an elaboration of the theory of reasoned action. This theory posits that human social behavior arises in a natural and predictable manner from individuals' information or beliefs regarding the behavior in question. These beliefs are shaped by a range of experiences, including formal education and interactions with family and peers. The theory of planned behavior posits that behavior is influenced by three key factors: social norms, attitude, and perceived behavioral control. The behavior of individuals is hypothesized to be influenced either indirectly through their intention to engage in a behavior, as discussed earlier, or directly through their perception of their ability to control their behavior. Nevertheless, it is important to acknowledge that there exist other factors that have an impact on human behavior, culture, religiosity level, and awareness of laws. Surprisingly, very few studies have examined the influence of these factors specifically on the occurrence of fraud.

The present chapter introduces a novel framework that posits the influence of the three additional social factors on human behavior. Previous research has employed various methodologies to examine and evaluate the theory of planned behavior, which serves as the foundation for the new framework. Consequently, it is initially proposed that the utilization of questionnaires would be an appropriate approach to investigate this framework which is in line with Leavy's (2017) assertion that surveys are often used in the social sciences to investigate people's attitudes, views, and opinions, and report their experiences and activities. However, while the literature exhibits a diverse array of methodologies, it is important to acknowledge the associated challenges and limitations. For instance, quantitative approaches may oversimplify complex phenomena, while qualitative methods can be time-consuming and subject to researcher bias. Additionally, the choice of methodology often depends on the specific research question and the availability of resources.

Consequently, the objective of the subsequent chapter is to examine the novel framework through the utilization of a quantitative approach in order to address the following research question:

> *R2: What is the relationship between social factors (attitudes, norms, perceived behavior, culture, religiosity, and law awareness) and fraudulent behavior?*

Chapter 2: The impact of social factors on fraudulent behavior

Introduction

The phenomenon of fraudulent behavior is a complex and widespread societal problem that has consistently captivated and alarmed individuals, organizations, and governments worldwide. The subject matter encompasses a wide range of deceptive and dishonest activities, including but not limited to financial fraud, identity theft, healthcare fraud, cybercrime, and corruption. The presence of these unlawful activities places significant economic, social, and psychological strains on both individuals affected and the broader community, thereby emphasizing the importance of investigating fraudulent conduct as a crucial area of academic inquiry.

This comprehensive inquiry undertakes an exploration into the intricate fabric of fraudulent conduct, with the objective of clarifying the intricate dynamics, motivations, and consequences that underpin this phenomenon. Fraudulent activities have demonstrated a remarkable ability to adapt and respond to the changing social and technological environments. Therefore, comprehending the underlying mechanisms of these deceitful strategies constitutes not solely an intellectual endeavor but also a vital element in ensuring the security of our economic systems, safeguarding our personal identities, and upholding the credibility of our establishments.

The aim of this chapter is to comprehensively examine some social factors and how do they influence one's behavior to commit fraud. This approach seeks to provide a comprehensive understanding of fraudulent behavior. This comprehensive investigation aims to elucidate the complex connections between fraudulent conduct and social variables, recognizing that the origins of dishonesty frequently reside within the social framework of our communities and institutions. Through the analysis of these interrelationships, a more profound comprehension can be attained regarding the motivations behind individuals' involvement in fraudulent endeavors, and the societal factors that either foster or impede such conduct.

In the subsequent sections, the research will undertake an exploration to examine the intricate relationship between fraudulent conduct and societal influences. In particular, the objective is to enhance the current understanding of the societal aspects of fraudulent conduct and offer valuable perspectives that can guide the development of policies, interventions, and strategies to mitigate the occurrence and consequences of fraudulent behaviors.

1. Theoretical framework and hypothesis

In the ongoing endeavor to achieve high standards, it is acknowledged that the existing framework's inherent structural deficiencies impede the advancement. Through the adoption of a new framework, the research objective is to eradicate these obstacles and establish a system to overcome fraudulent behavior and avoid its existence. The implementation of a novel framework exemplifies the dedication to ongoing enhancement. This research project is informed by the theory of planned behavior (Ajzen, 1985; Ajzen, 1991). It presumes attitude, subjective norms, and perceived behavioral control to ascertain the social factors that influence behavior.

The theory of planned behavior was chosen due to its ability to illuminate the critical role of social factors in shaping behavior, making it highly compatible with predicting fraudulent behavior to detect and prevent it. On the other hand, business ethics has developed into a critical area of research for international business. Among the numerous factors that influence business ethical views, most practitioners and scholars have identified culture as the primary factor driving international differences in business ethical attitudes. For example, despite the first cluster's higher level of government legitimacy, the Caribbean, Pacific Islander, Latin American, and Middle Eastern clusters have a higher proclivity for corruption than the Anglo and European clusters, implying that culture has a significant impact on perceived corruption. Likewise, Di Stefano et al. (2019) discovered that organizational culture significantly impacts employees' deviant behaviors.

Furthermore, religion is an integral part of a system of beliefs. Throughout history, religions have significantly influenced how businesses should be run. To elaborate, both the Qur'an and the Bible make numerous references to the prohibition of fraud. Additionally, both the Qur'an and the Bible make innumerable references to good deeds and behavior. Kirchmaier et al. (2018) demonstrate that religious individuals are less tolerant of ethical failures and volunteer more hours. Further, Fathalla et al. (2019) show how religion has influenced business operations by defining what "Halal" is and what is "Haram". These cherished habits (halal actions) laid the groundwork for the organization's underlying concepts and standards. For example, they stated that the company was unwilling to negotiate business transactions if it would entail increasing rates to cover commissions, thereby unfairly increasing prices to final customers.

Similarly, awareness of the law plays a significant role in shaping behavior. Numerous studies demonstrate that when people see public regulators such as the police and the army, their behavior changes. Terry et al. (2020) found that motorist behavior changes when they see police cars. In particular, drivers tend to reduce their speed when police cars are visible.

Based on the literature review conducted in the first chapter, culture, religiosity, and law awareness were either not investigated or rarely investigated in the disciplines of fraud and financial crimes. As a result, the following research question is expected to be addressed in this chapter:

What is the relationship between social factors (attitudes, norms, perceived behavior, culture, religiosity, and law awareness) and fraudulent behavior?

The previous chapter demonstrates that, in addition to the factors suggested by TPB; culture, religiosity, and law awareness are positively correlated and associated with one's behavior. As a result of this, the following hypotheses will be investigated:

H1: There is a direct relationship between attitude and fraudulent behavior in Italian retail companies.

H2: There is a direct relationship between subjective norms and fraudulent behavior in Italian retail companies.

H3: There is a direct relationship between perceived behavior and fraudulent behavior in Italian retail companies.

H4: There is a direct relationship between culture and fraudulent behavior in Italian retail companies.

H5: There is a direct relationship between religiosity and fraudulent behavior in Italian retail companies.

H6: There is a direct relationship between law awareness and fraudulent behavior in Italian retail companies.

2. Methodology

According to Creswell (2003), examining the relationships between and among variables is critical for answering questions and hypotheses via surveys and experiments. Quantitative methods are

frequently used in behavioral research, particularly surveys (Leavy, 2017). As a result, a quantitative technique, precisely a survey technique, is used to address the first research question, which examines a causal-effect relationship. Surveys rely on administering standardized questions to participants that can be statistically analyzed. They enable researchers to assemble a diverse set of data from large samples and extrapolate to the larger population from which the sample was drawn (Creswell, 2003; Leavy, 2017).

Quantitative data have quantifiable characteristics. Measuring implies the presence of a magnitude, which is typically expressed numerically. Once one is comfortable with numbers, he/she can apply mathematical procedures to the data. These can range from the simplest, such as counts or percentages, to the most complex, such as statistical tests or mathematical models (Creswell, 2003; Walliman, 2011; Leavy, 2017).

Certain types of quantitative data are unavoidably numerical: population counts, economic data, and scientific measurements, to name a few. However, other kinds of data appear unrelated to quantitative measures but can be converted to numbers. For example, while people's attitudes toward fox hunting may be difficult to quantify, if one provides a set of responses to questions about the subject in a questionnaire, he/she can count the various reactions and treat the data as quantitative. Census figures, economic data, performance data, and all measurements used in scientific endeavors are all examples of quantitative data (Walliman, 2011).

In accordance with the same methodology, data are collected using closed-ended questions by providing respondents with a few sentences and requiring them to evaluate those sentences based on a given scenario. In order to perform an analysis and investigate the relationship between factors, however, it was necessary to convert data into numbers. The subsequent sections of this chapter will provide additional information.

2.1. Questionnaire

Surveys have distinct advantages and disadvantages. Because surveys are beneficial for describing the characteristics of a large population, surveys with 2,000 respondents are not uncommon (Babbie, 2008). While this is one of the oldest data collection methods, it has a low response rate, requires considerable time and skill to design and develop, and restricts the range and scope of questioning. In comparison, they are inexpensive and quick to administer, provide easy access to

a large number of cases, eliminate the researcher's influence, and respondents can respond whenever and wherever they want (Walliman, 2011). The disadvantages of questionnaires were eliminated through the implementation of a web-based survey that ensures a high proportion of accepted responses. To elaborate, it is impossible to determine the response rate because it is impossible to determine how many people have seen the survey link. Nonetheless, 112 participants completed the questionnaire.

Inquiring is a natural approach for individuals to provide quantitative and qualitative data. By using a questionnaire, one may compose questions and gather replies without interacting with each responder personally (Walliman, 2011). The closed-ended questionnaire distributed to answer the research questions followed the below questionnaire format which is proposed by Creswell (2003) and Leavy (2017):

- The questionnaire's objective was presented to the sample, and the variables examined (see Table 3) were also specified to assure their thorough understanding.
- The sample was informed why survey research is the most appropriate method for the study. Rationales were presented to offer them further information, including the cheap cost of conducting the survey, the speedy turnaround time for data collection, and the simplicity of gathering a significant sample in a short timeframe.
- The sample was informed about the manner of data collecting. To elaborate, data were obtained using a web-based or internet survey and were conducted independently, without the involvement of a third party.

Although respondents may have been required to choose between more than two options, and they may have been disqualified, closed-ended survey was preferred over open-ended survey because respondents were required to evaluate some phrases given to them based on a specific scenario, and because analyzing and understanding closed-ended questionnaire is easier. The questionnaire used to accomplish this research's objective was adapted from an earlier study, with some modifications to the scenario and questions to fit the framework used in this study (please refer to "IV. Questionnaire" section).

Variable	*Abbreviation*	*Type of variable*	*Definition*
Fraudulent behavior	FB	Dependent variable	This variable is defined as committing fraud (online fraud, financial statement fraud, asset misappropriation, and corruption), not adhering to the commercial laws and regulations of the country in which the employee resides, and not adhering to the company's financial internal policies.
Attitude	ATT	Independent variable	The willingness and favorableness of an employee to engage in a fraudulent behavior.
Subjective norms	SN	Independent variable	the impact of people (including family, friends, colleagues, etc.) on an employee's perception to engage in a fraudulent behavior.
Perceived behavior	PB	Independent variable	the perception of control that an employee feels like he or she has, and it is strongly influenced by the actual control given to that employee.
Religiosity	RL	Independent variable	the extent to which a person adheres to and values his religion, which discourages him from engaging in fraudulent behavior.
Culture	CL	Independent variable	An individual's relationship with his loved ones and the appreciation of one's domestic environment.
Law awareness	LA	Independent variable	A person's awareness and perception of the consequences of the engagement in fraudulent behavior.

Table 3: Dependent and independent variables

Following the modifications made to the survey, it was presented to several psychologists and fraud experts to ensure that the design is appropriate. Furthermore, a pilot test was conducted to ensure that the questions were understandable and sufficiently comprehensive to address one of the research questions. In average, respondents spent 8 minutes answering the survey questions which is in line with the optimal survey duration suggested by Revilla and Ochoa (2017) and Revilla and Höhne (2020).

2.2. Pilot testing

Pilot testing is critical in survey research to demonstrate that the survey can elicit the desired responses from the target audience. Typically, pilot tests are conducted on academics or undergraduate students. The pilot instrument should be an advanced draft of a document that accurately depicts the research's progression from abstract concepts to the development of valid constructs and finally identifies reliable individual questions (Malcolm, 2003; Leavy, 2017). To increase the reliability and validity of individual questions, the entire questionnaire should be evaluated before conducting the survey correctly. A large pilot study would also enable an assessment of the measures' reliability and validity (Malcolm, 2003).

A pilot test was conducted to ensure that the questionnaires used suited the research's objectives and aided in collecting necessary data. The questionnaire was distributed to ten individuals, five of whom are psychology academics and professionals and five of whom are employees. The questionnaire-response sample used for pilot testing was omitted from the final sample and results. Additionally, the pilot testing followed the questionnaire criteria detailed in the preceding sections.

2.3. Sampling

This research aims to examine the social factors that contribute to fraudulent behavior and how businesses can prevent it from a social standpoint. The questionnaire was distributed online using the Pollfish website. In order to achieve the goal of the research, sampling technique employed focused on Italians who are at least 18 years old and who have studied and worked in Italy. Due to the high cost of finding respondents through the Pollfish website, a link to the questionnaire was posted to several different websites, such as LinkedIn and Facebook, and was given to some coffee shops close to Italian universities to reach students as part of the sample. The survey closed with 112 respondents (see Table 4 for the respondents' characteristics).

2.4. Analytical procedures

Pearson's correlation coefficient was used to determine the correlation between variables. Correlation analysis is used to determine the degree of association between variables. It quantifies the strength of linear association between two variables, and it is especially critical in cases where neither variable is believed to be dependent on the other (Malcolm, 2003; Rugg, 2007; Peat, et al., 2008; Myers, et al., 2010; Black, 2011; Lee, 2012).

Variables	N	%
Gender		
Male	60	54%
Female	52	46%
Age		
18-25 years old	53	48%
26-35 years old	34	30%
36-45 years old	16	14%
Older than 45 years old	9	8%
Occupation		
Students	61	55%
Employees	51	45%
Education level		
University education	98	79%
No university education	14	21%
Education		
Economy	71	63%
Non-economy	41	37%
Income level		
Low income	76	68%
Average income	31	28%
High income	5	4%

Table 4: Respondents' characteristics

Additionally, ordinal regression analysis, an inferential statistic, is used to evaluate the research questions or hypotheses and draw conclusions about the population from which the sample was drawn. Null hypothesis significance testing is a frequently used technique in inferential statistics. Statistical significance tests determine whether the null hypothesis, which states that no relationship exists between/among the variables, is rejected. To avoid a Type I error, the null hypothesis is tested. A *Type I error* occurs when an individual concludes that a relationship exists when, in fact, it does not. A p-value is generated due to significance testing (p refers to probability).

A p-value less than .05 indicates a probability of 5 in 100. If the p-value is greater than .05, no relationship exists between the tested variables. Significance test results should be interpreted cautiously to avoid making a *Type II error*, which occurs when one concludes that no relationship exists between variables when there is one (Malcolm, 2003; Leavy, 2017). To test the hypothesized relationships between constructs in theory used in this research, the following model was used:

$$FB_i = \alpha + \beta_1 ATT_i + \beta_2 SN_i + \beta_3 PB_i + \beta_4 RL_i + \beta_5 CL_i + \beta_6 LA_i + \varepsilon_i$$

Where FB denotes the fraudulent behavior, and ATT denotes an attitude toward deferring the expense of supplies, SN stands for the subjective norms which refers to how those close to the manager feel about the manager deferring the supplies expense. PB refers to the manager's perceived behavioral control. In other words, how much control the manager feels he or she has over the deferral of the supplies expense. RL denotes respondents' religiosity level, CL denotes respondents' culture, LA denotes respondents' awareness of the law, and *i* denotes the total number of respondents. Furthermore, α is the intercept associated with the regression line, β is the coefficient operating on the continuous independent variable, and ε is the error term or the residual of the model.

Validity and reliability are the two primary criteria for evaluating quantitative research. *Validity* is a term that refers to the extent to which a measure taps what we believe it taps. *Reliability* is a term that refers to the consistency of outcomes. A valid and reliable measure is desirable. Validity was determined by presenting the topic and methodology to experts in the field (content validity); additionally, it was determined by determining whether the statistical analysis chosen was appropriate and whether the conclusions drawn were consistent with the statistical analysis and statistical laws. Cronbach's Alpha Coefficient, on the other hand, was used to determine reliability. It is a widely used measure, particularly for newly developed instruments, and overcomes the splitting problem, though its value depends entirely on the instrument's number of items (n). Thus, sensitivity to item count should be evaluated to establish reliability (Malcolm, 2003; Walliman, 2011; Leavy, 2017).

3. Results and discussion

As described earlier, an ordinal regression analysis was used to analyze the collected data in order to accomplish the purpose of this study. Consequently, results will be presented and discussed in

this section. All tables presented in this chapter are extracted from SPSS, a statistical program used for data management, advanced analytics, multivariate analysis, and business intelligence.

As part of the performed analysis, a Cronbach's alpha-based reliability test was conducted to determine the internal consistency of the variables. The Cronbach's alpha coefficient is a statistical measure that falls within the range of 0 to 1. Higher values of this coefficient indicate a stronger level of internal consistency among the items being measured. Typically, a minimum alpha value of 0.70 is deemed satisfactory for the majority of research endeavors, signifying that the items within the scale exhibit consistent measurement of the construct. Nevertheless, in specific circumstances, it may be necessary to establish a more stringent criterion, such as 0.80 or 0.90, depending on the research goals and the characteristics of the construct under investigation (Creswell, 2003; Malcolm, 2003; Leavy, 2017).

The results indicate that the Cronbach's alpha value for the scales used ranged from 0.83 to 0.94 with an average alpha of 0.90 (table 5). These results indicate a high internal consistency, as a result, the questionnaire is reliable. Specifically, a higher alpha value suggests a higher level of internal consistency, implying that the items in the measurement scales are effectively capturing the intended construct. This reinforces the confidence in the reliability of the data collected.

		INT	ATT	SN	PB	CL	LA	RL
N	Valid	112	112	112	112	112	112	112
	Missing	0	0	0	0	0	0	0
Mean		4.00	3.95	3.88	3.97	2.23	2.01	2.54
Median		4.00	4.00	4.00	4.00	2.00	2.00	2.00
Std. Deviation		1.02	0.96	1.08	1.13	0.99	1.11	1.02
Minimum		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00	5.00
Cronbach's alpha		0.94	0.89	0.91	0.92	0.92	0.91	0.83
(number of questionnaire items)		*3*	*3*	*3*	*3*	*4*	*3*	*6*

Table 5: Descriptive statistics

In general, the respondents demonstrated a willingness to commit fraud (ATT: mean = 3.95) and that their loved ones may influence their decision (SN: mean = 4.23). Moreover, they reported that committing fraud was simple (PB: mean = 3.97). In addition, respondents described themselves as nonreligious (RL: mean = 2.54), and as having a weak relationship with their culture (CL: mean = 2.23), nonetheless, they adhere to the law and regulations (LA: mean = 2.01). The descriptive

results of the responses indicate that respondents intend to commit fraud, as more than 83 percent of respondents indicated a willingness to delay expense recognition in order to receive their bonus. However, 75 percent of the sample respondents exhibited contradictory behavior upon learning that late expense recognition is a fraudulent act under the law.

According to the correlation matrix (Table 6), attitude, subjective norms, and perceived behavioral control are significantly and positively correlated with intention (respectively, 0.73; $p < 0.01$, 0.76; $p < 0.01$, and; $p < 0.01$). In contrast, culture and law awareness are significantly and negatively correlated with intention (-0.71; $p < 0.01$, and -0.67; $p < 0.01$, respectively). According to the correlation matrix, the level of religiosity is weakly and negatively correlated with intention, thus providing preliminary support for all hypotheses except the fifth.

		INT	ATT	SN	PB	CL	LA	RL
INT	Pearson Correlation	1	.73**	.76**	.81**	-.71**	-.67**	-.05
	Sig. (1-tailed)		<.001	<.001	<.001	<.001	<.001	.307
	N	112	112	112	112	112	112	112
ATT	Pearson Correlation	.73**	1	.64**	.68**	-.55**	-.55**	.04
	Sig. (1-tailed)	<.001		<.001	<.001	<.001	<.001	.340
	N	112	112	112	112	112	112	112
SN	Pearson Correlation	.76**	.64**	1	.68**	-.56**	-.61**	-.07
	Sig. (1-tailed)	<.001	<.001		<.001	<.001	<.001	.223
	N	112	112	112	112	112	112	112
PB	Pearson Correlation	.81**	.68**	.68**	1	-.66**	-.68**	-.03
	Sig. (1-tailed)	<.001	<.001	<.001		<.001	<.001	.391
	N	112	112	112	112	112	112	112
CL	Pearson Correlation	-.71**	-.55**	-.56**	-.66**	1	.54**	.01
	Sig. (1-tailed)	<.001	<.001	<.001	<.001		<.001	.469
	N	112	112	112	112	112	112	112
LA	Pearson Correlation	-.67**	-.55**	-.61**	-.68**	.54**	1	.08
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	<.001		.213
	N	112	112	112	112	112	112	112
RL	Pearson Correlation	-.05	.04	-.07	-.03	.01	.08	1
	Sig. (1-tailed)	.307	.340	.223	.391	.469	.213	
	N	112	112	112	112	112	112	112

**. Correlation is significant at the 0.01 level (1-tailed).

Table 6: Correlation matrix

Due to the nature of the collected data and the normality test (see Table 7), multiple regression analysis, which was utilized extensively in earlier research, is inapplicable. As mentioned previously, Likert-scale data are strictly considered ordinal data; consequently, ordinal linear regression was applied. Nevertheless, according to lærd Statistics[10] (2018) and the IBM SPSS Statistics Base (2023), four assumptions must be tested to determine whether ordinal regression analysis is compatible with the proposed model.

The first two assumptions concern the dependent and independent variables, which must be ordinal data, as is the case in this study. The third assumption is that multicollinearity, which occurs when two or more independent variables are highly correlated, does not exist. The third assumption is confirmed by the absence of multicollinearity in the collected data, as shown in Table 8. The fourth premise is the existence of a proportional odd. The assumption of proportional odds is examined using the parallel lines test. The p-value is greater than .05, so the proportional odds assumption appears to have held true according to Table 9. In other words, the test of parallel lines assumes that the model's slope coefficients are the same across response categories and that lines with the same slope are parallel. Consequently, assumption 4 is validated.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
INT	.327	112	<.001	.769	112	<.001
ATT	.344	112	<.001	.778	112	<.001
SN	.311	112	<.001	.811	112	<.001
PB	.295	112	<.001	.788	112	<.001
CL	.369	112	<.001	.777	112	<.001
LA	.282	112	<.001	.815	112	<.001
RL	.221	112	<.001	.901	112	<.001

a. Lilliefors Significance Correction

Table 7: Test of normality

The test of normality, often performed using tests like the Shapiro-Wilk test or the Kolmogorov-Smirnov test, provides a p-value that indicates whether the data significantly deviates from a normal distribution. A low p-value (typically below 0.05) suggests that there is evidence to reject the null hypothesis, indicating that the data does not follow a normal distribution. Conversely, a high p-value suggests that there is insufficient evidence to reject the null hypothesis, indicating

[10] Lærd Statistics is a statistics private school located in Norway founded by Dr. Adam Lund, and Dr. Mark Lund.

that the data is approximately normally distributed. Table 7 yields a p-value of <.001. This p-value falls below the conventional significance level of 0.05, indicating that the data significantly deviates from a normal distribution.

Model		Collinearity Statistics[a]	
		Tolerance	VIF
1	ATT	.468	2.137
	SN	.440	2.271
	PB	.331	3.018
	CL	.527	1.898
	LA	.482	2.074
	RL	.976	1.024

a. Dependent Variable: INT

Table 8: Collinearity Diagnostics

Table 8 is utilized to perform collinearity diagnostics in order to evaluate the existence and influence of multicollinearity among the independent variables in the regression analysis. Collinearity is a phenomenon that occurs when there is a high correlation between two or more independent variables in a regression model, which poses difficulties in discerning their individual impacts on the dependent variable. The identification and resolution of multicollinearity is of utmost importance in order to guarantee the dependability and comprehensibility of regression findings.

The Variance Inflation Factor (VIF) is a widely employed metric for evaluating collinearity. The VIF quantifies the extent to which the variance of the estimated regression coefficients is augmented as a result of the presence of multicollinearity. A high VIF, typically exceeding a value of 10, indicates the potential presence of multicollinearity. This implies that a substantial proportion of the variability in one independent variable can be accounted for by the other variables included in the model. The findings (table 8) indicates that no variables exhibited high values of VIF.

Moreover, a test of parallel lines was conducted to test whether or not the relationship between the independent variables and the ordinal categories of the dependent variable is consistent across all categories. The results suggest evidence to reject the null hypothesis due to the fact that p-value is lower than 0.05.

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	128.696			
General	124.809[a]	3.887[b]	18	1.000

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.
a. The log-likelihood value cannot be further increased after maximum number of step-halving.
b. The Chi-Square statistic is computed based on the log-likelihood value of the last iteration of the general model. Validity of the test is uncertain.

Table 9: Test of parallel lines

The statistically significant chi-square statistic (*p<.001*), presented in Table 10 indicates that the final model provides a significant improvement over the intercept-only model used as the baseline. This indicates that the model provides more accurate predictions than guessing based on marginal probabilities for outcome categories.

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	250.878			
Final	128.696	122.182	6	<.001

Link function: Logit.

Table 10: Model fitting Information

The objective of Table 11 is to determine if the observed data are consistent with the fitted model. The table indicates that the model fits the data well, as p>.05, so the model fits the data very well. In addition, the r-square results presented in the same table support the same conclusion. The Pseudo R2 value indicates that the investigated variables explain 73.9 percent of the variance in respondents' fraudulent behavior.

	Chi-Square	df	R-square	Sig.
Pearson	342.414	382		.928
Deviance	123.150	382		1.000
Nagelkerke			.739	

Link function: Logit.

Table 11: Goodness-of-fit

In line with the correlation analysis, the regression results (Table 12) indicate that attitude, subjective norms, and perceived behavioral control have a significant and positive effect on intention (respectively, 0.013; $p < 0.05$, 0.004; $p < 0.05$, and 0.001; $p < 0.05$). On the other hand, culture influences intention significantly and negatively (0.011; $p < 0.05$). In contrast to the correlation matrix, the regression analysis indicates a weak negative relationship between law awareness and intention (0.262; $p < 0.05$) and between religiosity level and intention (0.743; $p < 0.05$).

							95% Confidence Interval	
		Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound
Threshold	[INT = 1.00]	-1.378	2.381	.335	1	.563	-6.046	3.289
	[INT = 2.00]	4.339	2.478	3.065	1	.080	-.519	9.196
	[INT = 3.00]	6.291	2.587	5.916	1	.015	1.222	11.360
	[INT = 4.00]	11.817	2.838	17.337	1	<.001	6.255	17.380
Location	ATT	.918	.368	6.227	1	.013	.197	1.639
	SN	1.011	.346	8.525	1	.004	.332	1.689
	PB	1.240	.381	10.611	1	.001	.494	1.987
	CL	-.851	.333	6.547	1	.011	-1.503	-.199
	LA	-.334	.298	1.261	1	.262	-.918	.249
	RL	-.073	.223	.107	1	.743	-.509	.363

Link function: Logit.

Table 12: Parameter estimates

The results presented in this chapter, particularly those pertaining to the three main components of the theory of planned behavior, are consistent with previous research. Specifically, the analysis indicates that attitude has a significant and positive effect on fraudulent behavior, as suggested by Buchan (2005), Carpenter and Reimers (2005), Kulik et al. (2008), and Cohen et al. (2010). Moreover, subjective norms are significantly and positively associated with fraudulent behavior, confirming the findings of Cox et al. (1990), Babin and Griffin (1995), Kulik (2005), Carpenter and Reimers (2005), Fukukawa and Ennew (2010), Ferrell and Ferrell (2011), Davis and Pesch (2013), Cyr et al. (2020). In addition, as previously confirmed by Chang (1998), Fukukawa and Ennew (2010), and Cyr et al. (2020), perceived behavior is significantly and positively related to fraudulent behavior. This is in contrast to the findings of Carpenter and Reimers (2005), and Buchan (2005). The phenomenon under examination presents a complex interplay of potential factors that demand careful consideration and comprehensive analysis. One plausible explanation for the observed results may be traced to the participants' inherent limitations in expertise and the intrinsic nature of the scenarios delineated by Carpenter and Reimers (2005) and Buchan (2005). This warrants in-depth exploration as the nature of the scenarios may pose challenges that exceed the participants' current levels of knowledge and skill.

Additionally, it is essential to underscore that the study's sample population comprises exclusively of students, without taking into account their diverse practical experiences or the distinct

disciplines within which they are pursuing their academic pursuits. This inherent homogeneity within the sample may have bearing on the outcomes observed. Further examination into the students' fields of study, their varying degrees of familiarity with the scenarios, and their levels of expertise in the relevant subject matter can yield valuable insights into the complex dynamics that underlie their responses. Thus, a comprehensive investigation is necessitated, one that delves into not only the inherent expertise limitations but also the nuanced interplay of participant characteristics that converge to shape their responses to the scenarios presented.

Regarding the other components of the model, the regression analysis indicates a significant and negative relationship with fraudulent behavior, confirming what Stulz and Williamson (2003), Phau and Kea (2007), and Adamczyk and Hayes (2012) have suggested. Contrary to the findings of Addai (1999), Garner (2000), Weaver and Agle (2002), Takyi (2003), Kirchmaier et al. (2018), and Fathalla et al. (2019), religiosity and law awareness do not predict behavior. This may be due to the observed heterogeneity in levels of religiosity among the sampled respondents which can be ascribed to a multifaceted interplay of numerous influencing factors. Foremost among these is the intricate tapestry of religious affiliations represented within the respondent pool, where diverse belief systems, denominations, and spiritual traditions converge to shape individual religiosity.

Furthermore, the variances in self-assessment criteria for religiosity employed by each respondent introduce an additional layer of complexity, as individuals' subjective evaluations of their own religious commitment may encompass a spectrum of perspectives, encompassing religious rituals, beliefs, and moral values. Beyond this, the geographical origin of respondents also emerges as a contributing factor, with disparate nations and regions imposing distinct sociocultural norms and regulations that can exert varying degrees of influence on religiosity levels. Consequently, this multifaceted landscape of factors underscores the intricate nature of religiosity assessment within the studied population, warranting a nuanced exploration to disentangle the intricate web of determinants that shape individuals' expressions of faith and spirituality.

Conclusion

In conclusion, this empirical research chapter has provided valuable insights into the framework implemented and its applicability in understanding and predicting human behavior. Through a rigorous analysis of data and the application of TPB constructs, the results have uncovered meaningful findings that contribute to both theoretical understanding and practical implications.

The chapter reaffirms the robustness of the framework implemented in explaining a wide range of behaviors across diverse contexts. The findings demonstrate that attitudes, subjective norms, and perceived behavioral control, are indeed influential factors in shaping individuals' intentions and, subsequently, their actual behaviors. This reaffirms the significance of these constructs as core determinants in the TPB model.

Furthermore, the chapter has highlighted the importance of additional variables, such as culture, which can modify the relationships within the framework. This underscores the flexibility and adaptability of the framework to various real-world situations, emphasizing the need for researchers and practitioners to consider contextual factors when applying the theory.

Additionally, the chapter underscores the utility of the framework as a valuable tool for designing effective interventions and strategies aimed at promoting behavior change. By understanding the factors that influence intentions and behaviors, policymakers, educators, and practitioners can develop more targeted and evidence-based interventions to encourage positive behaviors and discourage negative ones.

In summary, this empirical chapter has contributed to the growing body of knowledge on the Theory of Planned Behavior, reinforcing its relevance in explaining human behavior across different domains. It has also shed light on the nuanced interplay between TPB constructs and external factors, enhancing the current understanding of how this theory can be effectively applied in practice. Moving forward, researchers and practitioners should continue to explore and refine the TPB framework to address the complexities of human behavior and develop more effective strategies for behavior change.

After analyzing the framework presented in the first chapter, it is important to examine ways to prevent fraud caused by social factors before it happens. In the following chapter, the research will explore strategies and solutions that can stop fraudulent activities linked to social influences. It will dig into how these strategies work, why they make sense, and how they have worked in real-life situations.

Chapter 3: Fraud detection and prevention

Introduction

In the contemporary era characterized by significant advancements in digital technology and the increasing interconnectedness of global markets, the potential for fraudulent activities has become more pronounced and consequential. The presence of fraudulent activities not only poses a risk to the stability of financial systems, but also erodes the fundamental basis of trust that underlies economic transactions and relationships. Fraud prevention has become an essential necessity in the contemporary world for businesses, government agencies, financial institutions, and individuals alike.

The prevention of fraud entails a proactive and strategic approach in order to address the constantly changing methods employed by individuals engaging in fraudulent activities. Fraud prevention encompasses a diverse range of measures, strategies, and technologies that are specifically developed to discourage, identify, and minimize fraudulent activities across multiple domains. The preservation of economic viability and adherence to ethical standards necessitate the implementation of effective fraud prevention measures, encompassing the protection of financial assets, safeguarding sensitive information, and maintaining the integrity of markets.

This chapter undertakes a thorough investigation into the various mechanisms used for preventing fraud, with the objective of understanding the complex array of strategies and tools employed to deter individuals engaged in fraudulent activities. This study aims to comprehensively explore the multifaceted realm of fraud, analyzing the underlying incentives driving fraudulent behavior, the specific weaknesses that wrongdoers capitalize on, and the proactive strategies that individuals and organizations can implement to strengthen their protective measures.

The importance of this chapter is emphasized by the widespread prevalence and advanced nature of modern fraudulent schemes. The threat of fraud remains constant, ranging from cybercrime syndicates orchestrating extensive data breaches to individuals perpetrating white-collar crimes within organizations. The prevention of fraud is of utmost importance for entities across various sizes and sectors due to the potentially severe financial and reputational repercussions experienced by victims.

In the pursuit of comprehending the intricacies of fraud prevention, it is imperative to acknowledge the absence of a universally applicable solution. However, the implementation of successful prevention strategies requires a comprehensive approach that incorporates various elements such as technology, risk evaluation, employee education, and a culture of attentiveness. This chapter seeks to offer significant contributions to the field of fraud prevention by providing valuable insights. The objective is to empower individuals and organizations with the necessary knowledge and tools to effectively reduce risk and uphold the trust and security that serve as the foundation of our interconnected global economy.

As the chapter commences investigation into mechanisms for preventing fraud, it is important to acknowledge that, given the constant evolution of fraudulent activities, one's dedication to remaining vigilant and fostering innovation is of utmost significance. Through comprehending the dynamic nature of fraudulent activities and the various countermeasures at our disposal, we can collaboratively strive for a future characterized by reduced instances of fraud, the preservation of trust, and the safeguarding of economic prosperity.

1. Fraud detection mechanisms

Fraud in small businesses is often discovered by internal auditor recommendations and, more often than not, by accident. These findings imply that antifraud rules and procedures may contribute significantly to preventing and detecting fraud. Investors often evaluate the decreased information risk inherent in high-quality financial reporting. Reduced perceived information risk improves the efficiency and safety of capital markets, resulting in reduced capital costs and higher securities prices. As a result, society, industry, the accounting profession, and regulators all have a stake in detecting and preventing financial statement fraud (Rezaee & Riley, 2002). So, what are some of the mechanisms which companies can use to detect and prevent fraud? This chapter provides a literature review from top academic journals and books on the fraud detection and prevention mechanisms used by companies.

Goldmann (2009) proposes that fraud detection systems may be classified as basic or advanced. Among the most basic are the following procedures:

1) Surprise audits since dishonest personnel may hide fraudulent activity if they are informed of upcoming audits.

2) Surveillance measures, such as deploying closed-circuit television cameras, confidential informants, and other surveillance techniques may be beneficial in discovering physical fraud, such as supply or inventory theft, misuse of corporate equipment, or other physical assets.
3) Conducting routine internal audits as internal auditors should begin with a professional skepticism when establishing the presence and severity of fraud threats during regular internal audits.

By contrast, Goldmann's (2009) advanced detection technique is intended to capture frauds, such as those whose red flags are discovered in the organization's financial records and statements. They rely mainly on specialized anti-fraud auditing procedures to assess the organization's fraud risks and then employ professional skepticism and special audit measures to find evidence of these fraud risks. The advanced detection techniques were divided into stages as follows:

Step 1: Red flags and fraud analysis

According to the ACFE (2020), tips, or whistleblowers, accounted for 43 percent of fraud detections in 2020. During the same time period, internal auditors found 15 percent of fraud-related incidences; management review detected 13 percent; and other methods such as accident, reconciliation, external audit, and document verification detected less than 6 percent. According to scholars, finding "red flags" is one of the first steps in detecting fraud. This word refers to anything unique for the company or variables that increase the existence probability of committed fraud, such as debiting income from a credit account or crediting expenditure from a debit account. The traditional red flags described in professional literature are more concerned with financial reporting and accounting cycle fraud than operational management fraud. One explanation for this is that financial statement fraud has been researched more thoroughly. Another rationale is that accounting cycle fraud fits within the accounting profession's established frames of reference (O'gara, 2004).

Goldmann (2009) divides red flags into internal, managerial, and external categories. At the internal level, red flags refer to odd behaviors connected to the employee's duties, such as invoice recognition, payment, unjustifiable inventory variances, and unauthorized use of a USB drive. On the other hand, red flags at the managerial level can occur due to managers lying to auditors, management increasing pressure to meet budget targets, prices for frequently purchased goods or

services suddenly increasing, and sudden increases in volumes sold to specific customers. In contrast, red flags at the external level are represented by invoices that appear unprofessionally prepared or printed, e-mail messages that direct you to a Web page with an unusually long header address, and a paucity of information. The red flags indicated here are consistent with what O'Gara (2004) and Youngblood (2017) noted.

Another red flag area is reports and complaints regarding suspected scams or strange incidents seen. Tips are thoroughly explored compared to the majority of other abnormalities or anomalies. It is acknowledged that individuals are hesitant to share information about fraud or suspicion of fraud. They have no way of knowing for sure that the scam is occurring. The majority of individuals are averse to potentially exposing those they know, work, and socialize with. They think that reporting on individuals is just wrong or that they are siding with management by doing so. There is also the dread of being informed and being shunned by other workers. There is the possibility of retaliation from the suspected culprit and the supervisor, who may not believe the tip or be complicit in the deception. Therefore, businesses must have a whistleblower protection policy to address these issues since many firms lack whistleblowing or integrity hotline protocols that make it anonymous and straightforward for individuals to offer information (Gee, 2015).

However, red flags may not always indicate fraudulent activity. Indeed, by passing adjustment entries, income may be debited, costs may be credited, and stock count variances may result from a human mistake in counting, or damaged products. As a result, a deeper investigation is necessary to determine whether these red flags represent fraudulent activities. Thus, businesses in this situation are compelled to undertake some analysis. Fraud analytics has emerged as the twenty-first century's most powerful tool for finding abnormalities, red flags, and trends among massive volumes of data that may be extremely difficult to examine (Goldmann, 2009). The term *fraud analytics* refers to analysis that uses critical thinking abilities to synthesize the output of many approaches into a unified actionable analytical result (Spann, 2014). Effective use of fraud analysis tools does not need complexity. Criminals and fraudsters' strategies and antics have become more sophisticated due to technology and the ways they employ to conceal fraudulent actions (Goldmann, 2009).

Fraud analysis, or data analytics software, may aid us in filtering through all transactions in order to identify irregularities. Recognizing fraud may improve one's testing and lower the number of

anomalies to examine. Popular audit analytics software solutions, such as ACL and IDEA, which are used to analyze data from an organization's databases, can be turned into information that may be used to collect proof of fraud. These software tools may be used to look for certain red flags (Goldmann, 2009; Spann, 2014; Gee, 2015):

- At least two providers have the same phone number or mailing address.
- A vendor and an employee have the same demographics.
- Employees in the payroll master file who do not have a Social Security number have identical Social Security number of other employees.

Additionally, such software tools are beneficial for identifying duplicate transactions, extracting anomalous transaction components, and generating audit transaction samples (Goldmann, 2009; Spann, 2014; Gee, 2015). However, the analytical process necessitates the acquisition of three major developmental skill sets: information, abilities, and skills. More importantly, three variables contribute to the study (Spann, 2014):

1) It is critical that the information be accurate. Incorrect or skewed data will automatically impair the quality of the analysis.
2) The details must be precise and presented so that the information may be appropriately digested to achieve the desired outcome.
3) The data cannot be distorted or misconstrued and must include pertinent information.

Step 2: Internal auditors

According to Gee (2015), fraud detection approaches should be focused on any gaps in internal controls. Irregularities should be investigated, and the necessary corrective measures noted. The documentation will aid in implementing necessary corrective actions to the internal controls. Thus, employing internal auditors wherever and whenever there is a red flag is an efficient technique to identify fraud since internal auditors are supposed to understand the business's operations thoroughly.

According to popular belief, internal auditors perform the same functions as external auditors. They focus on financial accounts, accounting systems, and financial risk controls to ensure that the company is in order when the external auditors arrive. This, however, is only partly true. Internal audit functions may be very different in practice. While some internal audit units

concentrate only on financial accounting and the financial control environment, others have considerably more complex agendas that need diverse skills and expertise. Internal auditors evaluate accounts and transactions in conjunction with the accounting systems' underlying architecture or underlying internal controls (Golden, et al., 2006).

Internal auditors should include the organization's fraud risk assessment in their yearly audit plan and conduct frequent assessments of management's fraud detection skills. Additionally, they should interview and interact periodically with people doing the assessments and others in influential positions within the firm to ascertain if all fraud risks have been evaluated. Internal auditors should invest appropriate time and effort in assessing the design and operation of internal controls to prevent and identify significant fraud risks while conducting engagements. They should analyze actions with professional skepticism to look for evidence of probable fraud. Potential fraud discovered during an engagement should be addressed using a well-defined response strategy that adheres to professional and legal standards (Goldmann, 2009).

While fraud detection is also a traditional function of the internal auditor, awareness of the need for fraud detection has grown significantly over the previous decade. Internal audit functions are frequently well-positioned to provide this service if team members have received fraud detection training, which covers everything from attitudes and methods to recognizing when red flags of possible fraud are strong enough to call in forensic accounting specialists. In response to the rising focus on fraud detection, internal auditors are pursuing specialized training that enables them to identify fraud effectively (Golden, et al., 2006).

According to SIAS[11] 3, Internal auditors detect signs of fraud and, if required, conduct an inquiry to establish if a fraud has been perpetrated. Internal auditors have four tasks for identifying fraud, according to the same standard (Rezaee & Riley, 2002):

1) Internal auditors should have adequate knowledge and awareness of fraud to recognize situations that may suggest the presence of red flags indicating possible fraud.
2) Internal auditors should study and evaluate corporate structure to identify fraud opportunities, such as a lack of vigilant and effective corporate governance and weaknesses

[11] Statements on Internal Auditing Standards

in the internal control structure that could enable financial statement fraud to be committed in the presence of adequate incentives.

3) Internal auditors should assess the choices made by fraudsters when committing financial statement fraud and determine if those decisions present further red flags and what measures should be taken. Internal auditors' engagement in their organization's normal operations and internal control structure uniquely qualifies them to recognize and analyze financial statement red flags.
4) Internal auditors should notify relevant organizational authorities of the risk of financial statement fraud.

Internal auditors operate similarly to external auditors in carrying out their goal of fraud detection (Golden, et al., 2006). Indeed, there is little difference between internal and external auditors regarding their use of technology and conventional auditing approaches (Halbouni, et al., 2016).

Step 3: External auditors

External auditors are accountable for giving their view on financial statements, including whether they include serious misstatements. While financial auditing is often focused on discovering significant misstatements in financial statements caused by mistakes or fraud, fraud investigation also focuses on lesser errors, irregularities, or frauds that fall below the materiality threshold and thereby escape the external auditor's notice (Rezaee & Riley, 2002). External auditors acquire most of their fraud detection procedures from other parties, such as banks, suppliers, and consumers. They are classified into control testing and substantive testing (ICAI, 2008).

Controls are tested by validating certain documents and procedures and comparing them to their internal controls or policies. In other words, they are determining whether the internal procedure was followed for a particular transaction. For example, the internal process for hiring a new employee includes posting a job advertisement or publishing in a newspaper, conducting interviews, and retaining official documents such as a copy of the employee's identity card, resume, and certificates. External auditors must ensure that all these steps were followed by either verifying the employee's file or interviewing the employee and human resources department. Any control deficit should be communicated to management, along with a proposal for fixing the defect. However, the more the control deficit, the greater the fraud risk, and hence the greater the number of audit procedures required (ICAI, 2008).

On the other hand, Substantive testing is divided into analytical procedures and detail testing. The analytical procedure examines plausible relationships between data, both financial and non-financial. It compares the current year's performance to the previous year's performance or actual results to budgeted results. When performing analytical procedures, auditors must determine whether discrepancies or variations exist between the two years or between the actual and budgeted amounts by interviewing management and the responsible employees to raise some questions and obtain evidence. There is no one-size-fits-all method for analytical procedures; they can be applied customer-by-customer, month-by-month, product-by-product, or even division-by-division. However, auditors delve deeper when an interviewee fails to justify certain discrepancies or variations (Rezaee & Riley, 2002; Golden, et al., 2006; Goldmann, 2009; Wells, 2017).

The test of details is used to ensure that the accounting information in the system is traceable to the corresponding document (invoice or contract) and is recorded accurately. Auditors conduct this test by requesting a sample from the company, which can be chosen randomly or based on the auditor's judgment. Additionally, auditors may request balance confirmation from the company's customers, suppliers, and banks to ensure that the invoices or contracts recorded are not fraudulent (Rezaee & Riley, 2002; Golden, et al., 2006; Goldmann, 2009; Wells, 2017).

However, some auditors may engage forensic accounting investigators if they have even the slightest suspicion of fraud. They may bring in these forensic accounting investigators year after year for the same client; their philosophy is to consult early and frequently not only with forensic accounting investigators but also with industry experts and risk and quality auditors who typically provide internal consulting services to audit teams in the field from the central offices of major accounting firms (Golden, et al., 2006).

Step 4: Forensic accountants

The aims of forensic accounting investigators are decided by the scope of work and the desire to accomplish the objectives of the client who contracted their services. Regardless of the different constituencies' varying interests, forensic accounting investigators are often tasked with answering questions such as "Who is involved?", "Was the culprit ordered by a higher supervisor?", "When did this occur?", "How did this occur?", and "How was it identified?" (Golden, et al., 2006).

Forensic accounting investigators must constantly remember that they are essentially fact finders and are not often hired to reach or deliver conclusions, or, more precisely, views. This is distinct from the financial auditor's job, as previously stated. The financial auditor is supplied with the books and records to be audited and is responsible for determining the audit processes' type, scope, and timeframe (Golden, et al., 2006). On the other hand, the forensic accounting investigator has a unique set of talents and works under the supervision of an employer, which may be management, the audit committee, counsel, or the auditing company itself (Golden, et al., 2006).

Litigation support consulting services include attorneys determining the utility, dependability, and relevance of financial information, collecting financial data, preparing deposition questions, and conducting interrogations. Litigation consultants assist attorneys with evaluating, analyzing, and interpreting financial data. *Financial data analysis and interpretation* is the process of establishing the relevance, use, and credibility of data submitted in support of legal action. Financial statement analysis evaluates financial data submitted to the court and supports lawyers in analyzing the results. Plaintiff and defense lawyers conduct financial data detection and analysis throughout the discovery stage of their cases to prepare for the other litigation team's evidence. Forensic accountants' financial knowledge and skills may benefit lawyers since they lack the necessary financial knowledge and competence to defend their clients with forensic accounting help successfully. Expert witnesses are often fraud examiners and forensic accountants. Judges choose expert witnesses based on their unique knowledge, ability, experience, and training to aid juries in reaching judgments on matters outside their everyday experience and understanding. Judges often recognize business forensic specialists as expert witnesses during legal procedures. Fraud examination is the inspection of financial and other paperwork to detect fraudulent activities (Rezaee & Riley, 2002).

When forensic accounting investigators conduct a fraud investigation in an unknown perpetrator setting, they often begin with a sufficient number of interviews to identify potential targets (Golden, et al., 2006). Interviewing and questioning are two critical tasks performed by fraud examiners. Interviews are often performed early in the investigation process to get pertinent information about the alleged fraudulent behavior's facts and circumstances. Interrogation is often reserved for suspected criminals in order to get voluntary admissions. Not only should fraud investigators ask pertinent questions, but they should also attentively listen to the replies and

examine the person being questioned body language (Rezaee & Riley, 2002). Furthermore, forensic accountants do other tasks such as data analysis and document inspection (Golden, et al., 2006).

While internal auditors, forensic accountants, and external auditors all use comparable fraud detection methods, their duties and scope of services remain separate. Internal auditors are initially responsible for implementing and developing internal controls to prevent fraud; forensic accountants are responsible for investigating and reporting on potential fraud cases; and external auditors are responsible for expressing an opinion on financial statements based on a sample of tested financial statements (Rezaee & Riley, 2002; Golden, et al., 2006). As a result, one may argue that they should collaborate and communicate to better fraud detection.

Additionally, one may argue that each type of fraud (explained in Chapter 1) should be detected using a unique approach. Indeed, different approaches are used to identify various types of fraud. For example, corruption fraud may be identified by examining internal controls since certain red flags may appear. To illustrate, in certain countries, cash payments are limited to a certain amount; if cash payments exceed this limit, it may be a red flag that auditors and forensic accountants should examine (Goldmann, 2009). Asset misappropriation fraud may also be identified by asset verification (a surprise asset count) and the installation of surveillance cameras in offices and factories. Cybercrime scams may be discovered by having knowledgeable IT staff, implementing fraud detection software, and doing reconciliations in an irregular credit card payment. Finally, external audits of financial statements may identify financial statement fraud. As a result, a red flag should be a first step in detecting fraud, as there is ‘no smoke without fire.’

Even though the accounting and auditing literature is dense with research on fraud detection and prevention, just a few studies concentrate exclusively on avoiding fraud caused by fraudulent behavior. Consequently, the next part will review the fraud prevention literature to formulate the second research question.

2. Fraud prevention mechanisms

While there is a clear distinction between fraud detection and fraud prevention, a substantial portion of the literature refers to fraud detection measures as fraud prevention ones. According to the Oxford English dictionary (OED), detection is the act of finding or noticing anything,

particularly something difficult to see, hear, or otherwise notice, the fact of being found or detected (Oxford, 2023). At the same time, prevention is preventing something undesirable from occurring. In basic terms, fraud detection is detecting fraud after it has happened, while prevention is the process of preventing fraud before it occurs. One may argue that businesses use the same approaches to detect and prevent fraud (Oxford, 2023).

According to Gee (2015), fraud detection approaches should be focused on any gaps in internal controls. On this basis, one may conclude that internal control inadequacies result in fraud. Consequently, one of the fraud prevention techniques may be to establish, improve, or enhance the internal controls of the business. Internal control measures are a critical component in preventing asset misappropriation fraud. These controls may include job segregation, adequate safeguards, and independent reconciliations, as well as internal verification of ledger accounts (Wells, 2017). Similarly, adequate internal controls include independent checks through monitoring and audits, accurate records and accompanying papers, and appropriate authorization for transactions (Gee, 2015). In the same way, businesses with more robust corporate governance measures are less likely to encounter false reporting (Cassar & Gerakos, 2010).

Furthermore, Wells (2017) argues that anti-corruption policies may be an effective method of preventing fraud. The anti-corruption policy may be created and communicated to workers, indicating that gifts and discounts from third parties are not permitted and that gifts and discounts received from third parties should be reported to the employee's supervisor or manager. Additionally, he advises that businesses be forced to educate and warn their workers on the FCPA and the potential penalties of violating it. Similarly, Wells (2018) believes that establishing a distinct anti-fraud policy strengthens existing regulations, provides a clear message about management's intolerance of fraud, and enables staff to concentrate on the types of wrongdoing that are acceptable and those that are not. While the particular contents of anti-fraud policies vary per firm, each should have some critical components to guarantee their effectiveness. An anti-fraud policy should define fraud explicitly and state management's viewpoint or attitude toward workplace fraud. The message should be succinct and straightforward, and top management should vigorously support it.

Halbouni et al. (2016) examine the importance of corporate governance and information technology in the United Arab Emirates' fraud prevention efforts. The findings reveal that

corporate governance has a negligible impact in avoiding fraud in the United Arab Emirates and that information technology plays the same function as conventional fraud prevention strategies. However, good corporate governance not only prevents fraud but also has a substantial influence on an institution's success (Wahyuni-TD, et al., 2021).

Additionally, Rezaee and Riley (2002) argue that a watchful board of directors, a vigilant audit committee, careful management, and a sufficient and competent internal audit function all contribute to fraud prevention. To prevent online fraud, businesses may implement anti-fraud software tools to filter unwanted emails and advertisements (Youngblood, 2017). These tools may employ a variety of analytical procedures, including but not limited to signature-based prevention mechanisms that rely on predefined features/patterns to identify negative impressions or traffic, or anomaly-based prevention mechanisms that rely on statistical analysis and historical data to identify suspicious placements (Zhu, et al., 2017). Additionally, Youngblood (2017) proposes that businesses urge workers to refrain from working on their computers or using business computers for personal purposes.

According to Biegelman (2013), detecting fraud is one approach to avoiding it. He suggests that to identify fraud schemes, one should contact law enforcement, government organizations, and consumer groups since they all give valuable information on avoiding fraud. Additionally, he argues that education and awareness are critical instruments for combating fraud. Furthermore, organizations can demonstrate to employees, shareholders, and the government that they take fraud detection and prevention seriously by hiring former federal agents and prosecutors with experience in investigating and prosecuting fraud and white-collar crime for their internal investigation and legal departments. Moreover, the United States Sentencing Commission and the Open Compliance and Ethics Group demonstrate that robust ethics procedures deter ethical wrongdoing and avert ethical and legal catastrophes such as Enron (cited in Ferrell & Ferrell, 2011).

Both the psychological characteristics of the workers and the availability of possibilities for fraud play a significant role in understanding the fraud (Cohen, et al., 2010). Additionally, Morales-Sánchez et al. (2019) argue that having trustworthy auditors (who act ethically) enables the organization to trust them. Moreover, they suggest that auditors' behavior and decisions regarding audit planning and execution should be guided by standards such as independence, integrity,

objectivity, incompatibilities, professional secrecy, technical training, professional capability, professional diligence and responsibility, fees and commissions, and advertising.

Existing research indicates that enacting formal controls demonstrates management's mistrust of its staff and may result in more dishonest and unethical reporting (Liu, et al., 2015), which contradicts Gee's assertion (2015). Consequently, Liu et al. (2015) propose that businesses should assess whether the control being applied is compatible with the control's disclosed goal, as contradictory signals undermine the control's effectiveness in reducing false reporting. Therefore, communication plays a critical role in preventing fraud. Similarly, this was evident in South Africa. The South African Banking Risk Information Centre was determined to have used its website to proactively engage with customers to raise awareness and educate them about e-banking fraud protection measures. As the 2017 and 2018 numbers were compared, a considerable rise in proactive communication through different activities was evident; consequently, there was a 33 percent drop in financial crime events from January to June 2018 compared to the same time in 2017 (Barker, 2020).

Additionally, Carpenter and Reimers (2005) conclude that reinforcing top management's attention to ethical decision-making should help prevent false financial reporting choices. The cornerstone for efficiently combating fraud is a robust organization's governance and anti-fraud program. This encompasses the organizational culture, tone of management, and the organization's policies. To clarify, Pearce et al. (1997) argue that managers who exhibit entrepreneurial behavior positively affect their subordinates' supervisor satisfaction.

The way an organization operates demonstrates its culture, as does the degree to which those policies are taken seriously and successfully enforced. A culture of anti-fraud is founded on ethics and compliance; it is a culture in which behavior and decision-making at all levels are motivated by the objective of doing the right thing. As a result, having a strong ethical culture is one of the most effective anti-fraud systems a business can have, as it directs workers' reactions to all organizational processes and transactions. Additionally, people who work in organizations with a strong culture of ethics and compliance are less likely to feel pressured to perpetrate fraud or participate in misbehavior (Wells, 2018). Similarly, Cascarino (2013) proposes that the most effective means of countering corruption's gradual infiltration into an organization is to

intentionally develop and execute a culture that neither supports nor tolerates corruption in any form.

According to Cascarino (2013), an anticorruption culture will be founded on the organization's adherence to agreed standards. Typically, these standards are founded on management's stated ethical stance and intolerance for corrupt activity in any form. When management makes a strong statement about the unacceptability of corruption, levels inside the company fall precipitously within a brief time. Additionally, Wells (2018) suggests that good company culture is most often noticed via its outcomes rather than any component. Fostering an ethical culture requires more than adopting a checklist of projects; similarly, a culture of corruption may persist even in organizations with regulations resembling good governance. However, the following evidence point to a corrupted culture:

a) Inappropriate attitudes or bullying among peers.
b) Low employee morale and a lack of teamwork.
c) High absenteeism or turnover.
d) A high volume of whistleblower complaints, particularly those made anonymously.
e) A lack of response to employee questions, concerns, or suggestions for process improvements.

Van Scotter and Roglio (2020) demonstrate that personality is a powerful predictor of controversy. Personality disorders, in particular, were extraordinarily excellent predictors of ethical scandals, with an average of nearly 90 percent accuracy for ethical misbehavior, fraud, and sexual misconduct. Consequently, one may argue that firms should evaluate their workers' personalities as a fraud protection measure. Additionally, one method of preventing fraud is paying relative salaries, which is connected with lesser employee theft. Overpayment, in particular, reduces the employee theft (Chen & Sandino, 2012).

According to Biegelman (2013), each of us has a role to play in the battle against fraud. Indeed, every one of us must take responsibility for preventing fraud and minimizing the possibility of being duped. Additionally, business organizations must be responsible for fraud prevention inside their enterprises. According to the ACFE, fraud prevention involves a set of rules that, when combined, limit the chance of fraud while increasing the likelihood of discovering any fraudulent behavior that may occur. The prospect of being apprehended most often dissuades would-be

criminals from committing the deception. As a result of this concept, having a comprehensive control system in place is critical for fraud prevention. While the fundamental components of a fraud prevention program are addressed inside the organization, repetition and reinforcement with workers are vital due to their criticality to its success.

Additionally, Wells (2018) proposes that management should educate workers on the collaborative nature of fraud prevention and the shared duty to prevent, detect, and report fraud instances. Indeed, organizational accountability for anti-corruption efforts must be clearly defined and conveyed to all personnel. Each individual must understand his or her part in the overall strategy and how to report any suspected misbehavior (Cascarino, 2013).

In summary, while the terms fraud detection and fraud prevention are separate, a significant section of the literature refers to fraud detection techniques as fraud prevention one. In the most straightforward words, fraud detection is the act of identifying fraud after it occurs, while prevention is the process of avoiding fraud before it occurs. Fraud prevention encompasses both basic and advanced methods. Basic methods, like camera surveillance for physical assets, suffice in less complex situations, while advanced methods, such as internal audit controls and forensic investigation, come into play when fraud indicators are prominent. These roles have distinct responsibilities, with internal auditors focusing on preventive controls, forensic accountants investigating fraud, and external auditors assessing financial statements. Enhanced cooperation among these entities can improve fraud detection. Given the diversity of fraud, tailored identification techniques are essential.

In contrast to fraud detection, fraud prevention aims to forestall fraudulent activities. A range of prevention techniques exists, as illustrated in Figure 3. However, understanding the psychological and behavioral factors driving fraud is fundamental for effective prevention. Thus, grasping the motivations behind fraudulent behavior is integral to developing robust preventive measures. The triangle and diamond theories (covered in Chapter 1) explain the same thing from a business perspective, but no studies have been undertaken to determine the procedures and mechanisms to prevent fraudulent behavior caused by social factors. As a result, the third research question is:

> *R3: How do companies prevent engagement in fraudulent behavior resulting from social factors?*

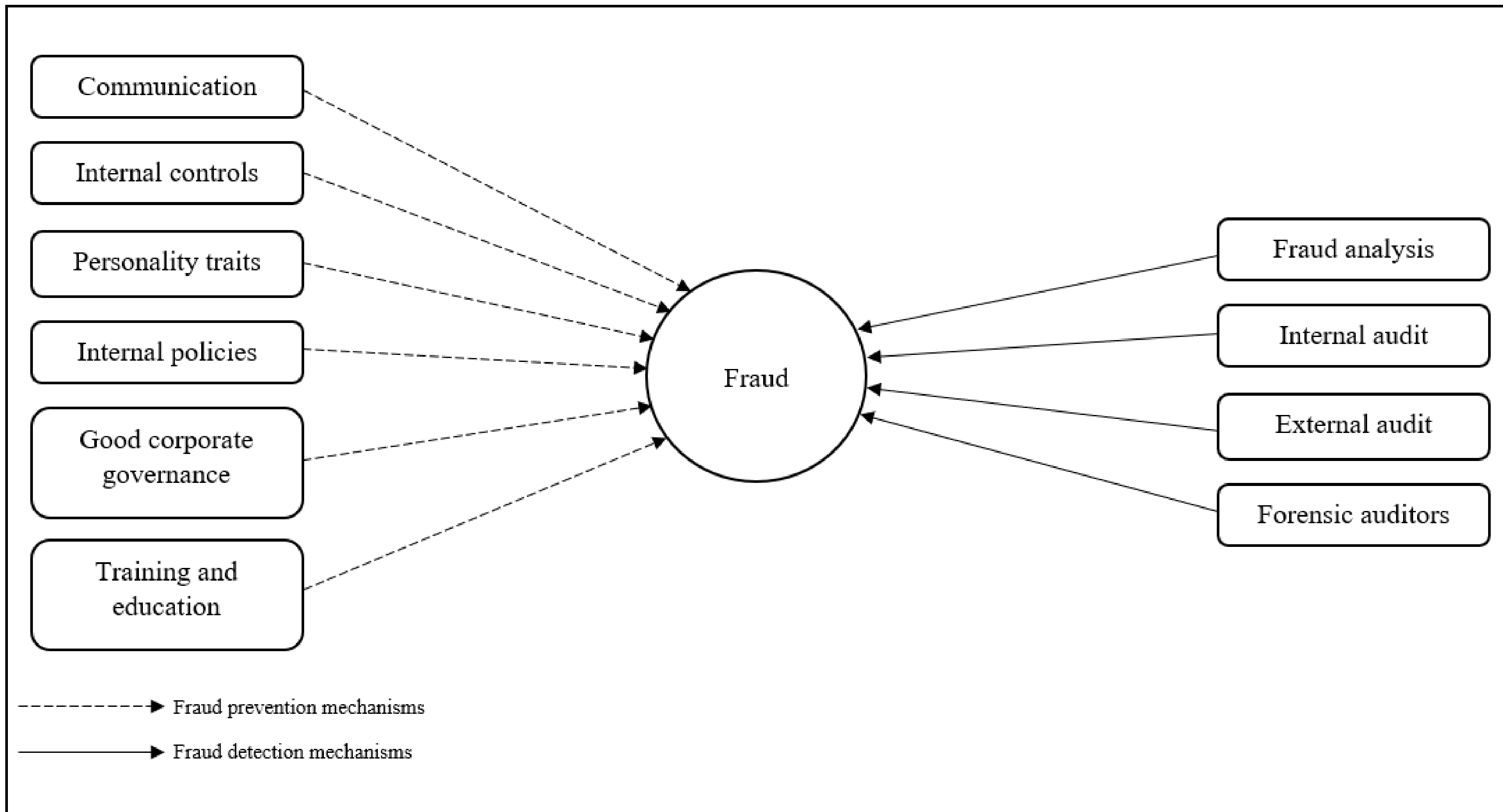


Figure 3: Fraud prevention and detection mechanisms

3. Methodology

Given the importance of social factors in determining an individual's behavior and thus the likelihood of fraudulent behavior, the purpose of this study is to develop a model to prevent fraud resulting from social factors by recommending procedures and policies for the accounting profession to adopt. This will be accomplished by investigating the perceptions of financial auditors and forensic accountants on how to prevent this particular type of deception based on their experience. Consequently, the following research question is implemented:

> *How do companies prevent engagement in fraudulent behavior resulting from social factors?*

Although there is a wealth of research on fraud and fraudulent behavior prevention and detection mechanisms, none of these studies focus on social aspects. Additionally, much of the literature makes no distinction between fraud detection and prevention. Fraud prevention is distinct from fraud detection in that it aims to thwart and prevent fraud before it occurs, whereas fraud detection is a series of steps taken to detect fraud after it occurs. As a result, this research question is expected to benefit auditors, compliance professionals, and academics because it aims to create a system that prevents fraud by focusing on social factors. In other words, the primary goal of this study is to develop a system that will aid in reducing or preventing fraudulent behavior in Italy regarding this subject. Additionally, to strengthen the forensic accounting system and its fraud prevention capabilities and expand the current accounting system into a new forensic accounting system that incorporates social factors. In light of these objectives, the following section will summarize the research methodology used in this study.

Qualitative research does not rely on numerical data, but information expressed in descriptions, accounts, opinions, feelings, and experiences. This approach is frequently used when studying people, tiny groups, or individuals, but it can also examine more general beliefs or customs (Babbie, 2008; Walliman, 2011; Leavy, 2017):

In particular, interviews were conducted to collect qualitative data. There are several advantages to having an interviewer administer a questionnaire rather than a respondent such as higher response rate, and a faster method than surveys (Babbie, 2008; Walliman, 2011). Interviewers can also act as a buffer against perplexing questionnaire items. If a respondent misunderstands the

purpose of a question, the interviewer can clarify, eliciting appropriate responses. Finally, the interviewer can observe as well as question respondents. For instance, the interviewer can note the respondent's face if this is deemed an inappropriate question to ask (Malcolm, 2003; Leavy, 2017).

By and large, in-depth interviews were conducted in this study, either inductive or open-ended, and ranged from unstructured to semi-structured. In other words, questions are not pre-defined in terms of acceptable responses, such as true or false. Rather than that, participants are free to use their language, provide lengthy and detailed responses if they desire, and respond to the question in any way they wish.

Before conducting interviews, interview guides were prepared that included everything from a general list of topics to cover to detailed lists of open-ended questions. The guideline was developed by determining whether all interviewees will be asked the same questions in the same order and whether interviewees will be permitted to take the interview in a different direction. The success of an interview research project is highly dependent on the rapport developed with the participants (Leavy, 2017). As a result, participants were assured of their interest in what they were saying through eye contact and gestures. Additionally, participants were asked for examples and stories to reassure them that the researcher wished to continue their discussions.

Following the interviews, an interview transcription was conducted to ensure that the interview was recorded entirely. Leavy (2017) suggests clearly labeling and marking the transcript to facilitate analysis. The analysis and interpretation processes are facilitated by going the extra mile during data preparation. The six-phase approach suggested by Terry et al. (2017) was followed in conducting the analysis which will be explained in the next chapter.

3.1. Sampling

In response to the second research question, approximately 50 elite interview invitations were sent out via LinkedIn, and e-mail to auditors and anti-fraud experts, of which, six accepted to do the interview. It is critical to emphasize that the invitations were sent to all levels and included both males and females. All interviews conducted were video recorded after seeking the participant's consent, records are kept strictly confidential as requested by all interviewees, as a result, their identity is not published in the research. Additionally, all interviews were conducted online by using Google Meet and Microsoft Teams. Moreover, the interviews were saved on GoogleDrive,

and the author's personal computer, and they were all password protected. In average, interviews lasted for 34 minutes, the shortest interview lasted for 20 minutes, and the longest one for 55 minutes.

At the beginning of each interview, a basic question was posed to all participants in an effort to make them more at ease when answering subsequent questions. A question similar to "tell me about yourself and your experience" was asked at the outset, followed by a brief explanation of the research and definitions of all technical terms. Table 13 summarizes the sample interviewed.

Code	***Age***	***Gender***	***Position***	***Experience***
Sam. 1	30 years old	Female	Financial Controller / ex-financial auditor	9 years
Sam. 2	56 years old	Male	Financial controller / ex-forensic accountant	29 years
Sam. 3	48 years old	Male	Partner in Forensic & Integrity Services	23 years
Sam. 4	45 years old	Male	Fraud consultant for Milan court	25 years
Sam. 5	29 years old	Male	Forensic Consultant	9 years
Sam. 6	27 years old	Female	Risk & Compliance / ex-forensic auditor	7 years

Table 13: Demographical information about the interviewees

3.2. Analytical procedures

Qualitative data were analyzed using thematic analysis. *Thematic analysis* is a technique for analyzing qualitative data that entails identifying recurrent concepts, referred to as themes, within a data set (Jason & Glenwick, 2016). Thematic analysis is adaptable because it can be used to analyze various data types, including those collected through traditional face-to-face data collection methods such as interviews and focus groups. Additionally, it can be used with textual data gathered through qualitative surveys, diaries, story-based methods such as vignettes and story completion tasks, online discussion forums, and other media sources (Terry, et al., 2017).

Thematic analysis entails a greater degree of researcher involvement and interpretation. It goes beyond counting exact words or phrases to identifying and describing implicit and explicit ideas contained within the data. Typically, codes are created to represent the identified themes and applied or linked to raw data to serve as summary markers for subsequent analysis (Guest, et al., 2014).

4. Results and discussion

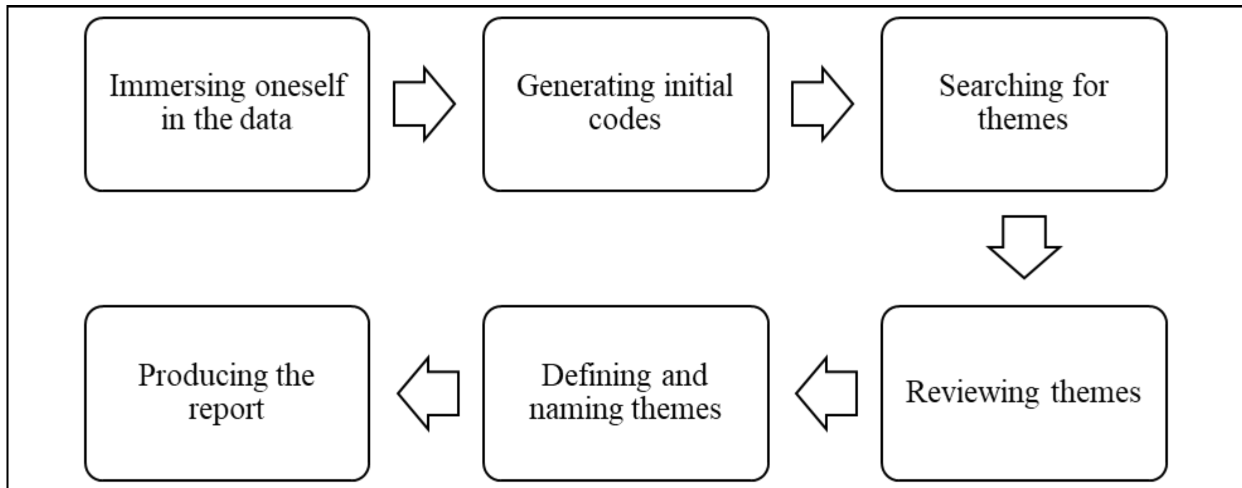
For the purpose of answering the second research question, six professional auditors and forensic accountants were interviewed. Unsurprisingly, they all encountered at least one instance of fraud during their professional careers. However, one of the most intriguing cases mentioned in the interviews involves a person who committed fraud solely out of revenge. After he was fired from his job, one of his loved ones suggested a plan of retaliation because the individual was feeling so depressed. This again demonstrates that subjective norms may influence an individual's behavior.

Interviews were built on four different themes, a) fraud case, b) fraud general motivations, c) social factors, and; d) fraudulent behavior prevention mechanisms. Each theme was divided into different sub-themes. However, for the aim of this research, the importance was given only to the fourth theme (fraudulent behavior prevention mechanisms) and its sub-themes. The sub-themes of the fourth theme include, internal policy, education and training, accountability, and the well-being. The sub-themes are presented and discussed in details in this section.

The six-phase approach suggested by Terry et al. (2017) was followed in conducting the analysis as presented in graph 1. The first phase of thematic analysis is familiarization with the data, which can begin during data collection and entails transcription of interviews and repeated reading of transcripts. The second phase entails developing codes that immerse the researcher deeper in the data and serve as the foundation for analysis. It is likely that as the researcher progresses through the coding process, they will begin to notice similarities and patterns in the data. However, it is critical to remain focused on coding the entire dataset before transitioning to the third phase of theme construction. After the data has been coded and the material associated with the same codes has been gathered, a search for themes may begin. This stage entails determining how various codes fit together within broader themes.

A fourth phase, reviewing themes, is required, in which researchers must review and refine the identified potential themes. Specific themes may be irrelevant to the research question, while others may be combined into broader concepts or distinct themes. Following that, the fifth phase requires researchers to define and name themes. At this stage, the themes may be refined further. The critical task here is to pinpoint the central idea of each theme and give it a succinct name. Finally, the report is produced. The report writing process provides a final opportunity to make

changes that improve the analysis and effectively communicate the analyst's story about the data. These steps were taken and implemented to address the second research question.



Graph 1: Thematic Analysis process

Thematic analysis performed resulted 3 themes, of which is the Interviews were

In addition to other questions, all interviewees were asked the same question: "How do companies prevent employees from engaging in fraudulent behavior due to social factors?" The interviewees proposed a number of methods for preventing fraud in general and socially motivated fraud in particular. For instance, one of the suggested solutions is the implementation of new, effective internal controls. According to Sam.2 and Sam.6, respectively:

> "*Internal controls are a solution, particularly if the cost is less than the benefit. For instance, if I have a salesperson who steals from the inventory to sell it for himself, but he is a good salesperson and brings in new clients who cover the cost of the stolen inventory, I would accept it because hiring and training a new salesperson would be more expensive*".

> *"Effective internal controls are solutions for preventing fraud resulting from social factors"*

Moreover, other interviewees strongly advocated for a continuous internal control improvement, especially considering that after a certain number of years with the same employer, an employee would be able to crack the internal control system, as stated by Sam.3, and Sam.4, respectively:

"First, I would recommend that they continue to enhance their internal controls, as employees will be able to comprehend the internal system after a few years"

"I would add that implementation of internal controls and continuous improvement would also add value"

Education and training were also mentioned as methods to prevent fraud. Sam.2 elaborates by stating:

"Periodic training sessions and explanation of the legal and professional consequences to the employees would prevent such conduct... Not being the case in Italy, teaching the law in schools would aid in fraud prevention"

Furthermore, Sam.5 states that:

"Providing training sessions and informing employees of the individual risks of committing fraud and their legal repercussions would undoubtedly be a viable solution"

Moreover, Sam.3 states that:

"Keeping employees apprised of legal changes and providing them with training would unquestionably aid in preventing fraud, as well as in altering mentalities"

Similarly, Sam.4 identifies education and mental shifts as means of preventing fraud by stating:

"In Italy, education and mentalities should be modified and enhanced. Nobody takes care of public facilities because they are not owned by anyone, whereas in other countries, public facilities are owned by everyone, so everyone takes care of them. This mindset and education should be adopted in Italy"

Other solutions such as segregation of duties (Sam.2, 2023) and job rotation (Sam.5, 2023; Sam.6, 2023) were mentioned; however, making employees accountable for their actions was overwhelmingly mentioned as a solution. Sam.3 elaborates by stating:

"Making an employee accountable for his or her actions would aid in the prevention of fraud. The secret to making an employee accountable is to make him or her feel like an integral part of the company. For instance, if an employee feels

like he is an integral part of the company, he will never commit fraud because he feels a strong connection to the management"

Similarly, Sam.1 believes that employees should be held accountable, but in a different manner:

> *"In my opinion, the key to making employees accountable for their actions is to ensure their well-being. To elaborate, if an employee is happy at his workplace, he will defend it and act in the best way possible. Since employees spend the majority of their time at their workplace and with their coworkers, if employees are happy at their workplace, they will view their workplace as their home and may sacrifice their own interests to benefit the company"*

Sam.4 mentions the issue of well-being when he states:

> *"Management should always strive to narrow the wage gap between employees, because an employee who earns less than his coworker may try to make up the difference by engaging in fraudulent behavior"*

Sam.5 concurs with what was stated previously regarding holding employees accountable for their actions. However, he believes that employees should be held accountable by "*requiring them to participate in every management decision. Employees are frequently viewed as the final cog in the company's wheel, but they are the company's true value-creating asset*". In a similar vein, *"Management should always involve employees in every decision, and they should feel valued"* (Sam.4, 2023).

Employers should provide incentives to employees to discourage them from engaging in fraud. In this context, the term "incentives" includes both financial and social incentives. An employee would be pleased to see his/her name in a news article stating that he/she is honorable because he/she uncovered a fraud, and would enjoy the positive comments on social media about his/her actions (Sam.3, 2023).

Moreover, communication with employees is always a good solution, especially if management is concerned about employees' personal issues. If management attempts to address these issues, employees would not consider committing fraud. In other words, if an employee is caring for a loved one while experiencing financial difficulties, he/she would ask management for money to

solve his/her financial problem, even as a loan. The employee would appreciate it and it would prevent him/her from committing fraud, thereby saving the company from "losing reputation" and money due to fraudulent behavior (Sam.1, 2023).

Connecting this chapter with the preceding one, one could argue that law awareness as a predictor may depend on the scenario, particularly if a person uses the "cost-benefit" method to evaluate the situation. To illustrate, if a person steals 1 million euros, he or she may not mind spending a year in jail; however, if a person steals 10,000 euros and spends a year in jail, he or she would likely reconsider. Additionally, one could argue that even if there are procedures and mechanisms in place to prevent fraud, the desire to commit fraud to achieve personal goals would still exist; therefore, the best solution in this situation would be to change oneself. These arguments might be well-explained by the X/Y theory.

McGregor's Theory X/Y postulates that managers can exert varying degrees of authoritative behaviors, ranging from "boss-centered leadership" to "employee-centered leadership," or from autocratic to democratic authority, depending on the level of "freedom" they wish to grant others when making decisions (Russ, 2011). Specifically, McGregor predicts that managers with a theory X orientation will assume that employees primarily seek to satisfy their physiological and safety needs through tangible rewards such as pay and bonuses, as well as by avoiding threats and discipline. Theory X managers typically assume employees dislike their jobs, are incapable of self-direction, require top-down direction, must be coerced into working, and avoid taking responsibility for organizational outcomes. Further, theory X managers typically believe that employees must be controlled, directed, or threatened with punishment in order for them to exert sufficient effort toward the achievement of organizational goals (Kopelman, et al., 2008; Russ, 2011; Gurbuz, et al., 2014; Lawter, et al., 2015).

In contrast, McGregor predicted that managers with a theory Y orientation typically assume that employees have an innate drive to perform, are accountable for achieving results, and are capable of self-direction and self-control. In this vein, theory Y managers typically assume that employees are motivated to meet higher-order needs by completing meaningful work, being involved in making work-related decisions, and contributing valuable input to improve the effectiveness of an organization. According to McGregor, a theory Y manager frequently assumes that an employee

will exercise self-direction and self-control in service of his committed objectives (Kopelman, et al., 2008; Russ, 2011; Gurbuz, et al., 2014; Lawter, et al., 2015).

Several studies investigate the influence of theory X/Y on various topics. Russ (2011) demonstrated the impact of the theory X/Y assumptions of managers on participative decision making. Specifically, he reported that theory X managers view participatory decision-making as having a negative impact on their authority. In addition, Gurbuz et al. (2014) investigated the impact of theory X/Y managerial assumptions on the attitudes and behaviors of subordinates. The findings suggested that the theory Y management style is significantly and positively related to subordinates' satisfaction with the leader, affective commitment, and organizational citizenship behaviors. In contrast, the theory X management style had a negative impact on subordinates' satisfaction with the leader but had no effect on affective commitment and organizational citizenship behavior. However, only one study examined the influence of theory X/Y hypotheses on the perception of organizational ethics, which is relevant to this topic because organizational ethics are intended to prevent fraud. According to Neuliep (1996), managers with a theory X orientation view unethical behavior as more effective than managers with a theory Y orientation.

By communicating with lower management and workers, upper management would be able to prevent fraud. It is essential to have a healthy organization and a welcoming atmosphere for employees to feel at home and assume responsibility for their actions. According to Sam.1, "*the key to making employees accountable for their actions is to ensure their well-being. To elaborate, if an employee is happy at his workplace, he will defend it and act in the best way possible. Since employees spend the majority of their time at their workplace and with their coworkers, if employees are happy at their workplace, they will view their workplace as their home and may sacrifice their own interests to benefit the company.*" However, motivating employees and building a healthy, fraud-free organization is not a simple task, as management must always consider what motivates employees and what type they are (type X or type Y).

Preventing fraud is a difficult task, and the argument itself has been contested on a theoretical and practical level for decades. Nevertheless, the professionals interviewed suggest fraud prevention mechanisms, whereas the literature focuses on fraud detection methods more than fraud prevention methods. In addition, certifications such as CPA, ACCA, and CFE provide a variety of fraud detection mechanisms, but only one fraud prevention mechanism, namely "internal controls." One

could argue, however, that having a solid background and being raised with an ethical mindset would alter the situation. Education, in particular, as also mentioned by the professionals interviewed (Sam.1, 2023; Sam.2, 2023; Sam.3, 2023; Sam.4, 2023; Sam.6, 2023); would be a solution to have a solid anti-corruption foundation and a generation with an anti-corruption mindset.

In addition to schools, families play a significant role in shaping an individual's behavior and attitude. Sam.3 states, "*Education is also a very important part, and by education I don't just mean school education, but also family education.*" This statement demonstrates once again, as presented in Chapter 1, that subjective norms have a significant positive effect on one's behavior. Zhang and Liang (2023) suggest that education level has a substantial positive effect on marital satisfaction. In addition, they assert that enhancing educational development will improve marital satisfaction and promote social harmony. Moreover, speaking of fraud, Burke et al. (2022) conduct a survey experiment among a representative sample of U.S. adults and find that brief, online educational interventions can significantly reduce fraud susceptibility and that the effects last for at least three months if a reminder is provided.

The significance of training is not less than that of education. Cerda-Navarro et al. (2022) examine the strategies and policies of academic integrity during the evaluation of academic dishonesty in postgraduate studies. They report that PhD students receive more training on academic and research integrity than master's students, which could explain why PhD candidates have a higher rate of passed plagiarism tests (83.3% vs. 66.7% for Master's theses). In addition, every interviewee mentioned training as a method for preventing fraud. For instance, Sam.1 states, "*As a preventative measure, I would include providing training sessions highlighting the risks of committing fraud and sending recurring emails to employees explaining corruption and their responsibility to report it if they observe it.*" Moreover, Sam.2 states "*Periodic training sessions and explanation of the legal and professional consequences to the employees would prevent such conduct... Not being the case in Italy, teaching the law in schools would aid in fraud prevention.*" In addition, Sam.6 states, "*As a preventive measure? I would attend the training! But not the e-learning training in which employees can click "next" to advance to the following slide. By training, I mean a good, well-structured training that would unquestionably add value to the*

employee and also change something within the company." Likewise, Sam.3 states and adds, "*...and sending them reminders would be my method for preventing fraud.*"

Conclusion

In conclusion, this chapter has yielded significant findings regarding the complex terrain of fraud prevention mechanisms. By conducting a comprehensive analysis of diverse strategies and methodologies, it has revealed the intricate complexity of fraud prevention in modern contexts. The chapter's findings and subsequent discussions highlight several crucial factors that enhance the current comprehension of efficient fraud prevention.

The chapter has identified the significance of adopting a comprehensive and diverse strategy in order to effectively mitigate fraud. The integration of both basic and advanced measures is imperative within a comprehensive strategy that takes into account the distinctive attributes of an organization, its operational environment, and the particular fraud risks it encounters. This approach recognizes the fact that the prevention of fraud is not a universally applicable solution, but rather a flexible and adjustable process.

Additionally, it underscores the importance of comprehending the underlying motivations and behaviors that compel individuals to engage in fraudulent activities. The previous chapter's analysis highlights the significance of acquiring a more profound understanding of the psychological and behavioral dimensions of fraudulent activities, as this knowledge can contribute to the creation of more precise and efficient strategies for preventing such occurrences. The acknowledgment of the human factor in the prevention of fraudulent activities underscores the imperative for continuous training, heightened consciousness, and the cultivation of ethical organizational environments.

Furthermore, the qualitative analysis has provided insight into the pivotal significance of collaboration and communication among diverse stakeholders engaged in the prevention of fraudulent activities. Internal auditors, forensic accountants, and external auditors, although they have different responsibilities, can contribute to the improvement of fraud prevention by effectively collaborating and exchanging information.

The chapter highlights the significance of customizing prevention mechanisms to effectively address specific risks, as evidenced by the wide range of fraud types discussed. Fraud prevention strategies ought to possess a dynamic nature, adapting and evolving in accordance with the emergence of new threats and vulnerabilities.

In brief, this chapter has enhanced the current comprehension of mechanisms employed for the prevention of fraud by exploring their complexities and contextual subtleties. Organizations can enhance their ability to safeguard their assets and uphold principles of integrity and transparency by recognizing the ever-changing nature of fraud and the significance of employing a comprehensive strategy. The dynamic nature of fraud necessitates continuous research and adaptation of preventive measures to effectively combat fraudulent activities.

Conclusion

In conclusion, this study constitutes a substantial investigation into the complex correlation between the TPB and fraudulent conduct. Through a comprehensive examination of the three fundamental elements of the TPB, as well as the supplementary factors of culture, religiosity level, and culture, scholarly literature has achieved a more profound comprehension of their impact on fraudulent conduct. In Chapter 2, an examination was conducted on the three primary constituents of the TPB. The results of this investigation align with prior research.

The study revealed that attitude plays a substantial and favorable role in influencing fraudulent behavior, aligning with the findings of Buchan (2005), Carpenter and Reimers (2005), Kulik et al. (2008), and Cohen et al. (2010). Moreover, the presence of subjective norms exhibited a positive correlation with fraudulent conduct, thereby corroborating the conclusions drawn by Cox et al. (1990), Babin and Gryphon (1995), Kulik (2005), Carpenter and Reimers (2005), Fukukawa and Ennew (2010), Ferrell and Ferrell (2011), Davis and Pesch (2013), and Cyr et al. (2020).

Additionally, the findings indicate a positive correlation between perceived behavioral control and fraudulent behavior, which is consistent with the studies conducted by Chang (1998), Fukukawa and Ennew (2010), and Cyr et al. (2020). Nevertheless, the outcomes presented here diverge from the conclusions drawn by Carpenter and Reimers (2005) as well as Buchan (2005). The intricate nature of the phenomenon being examined implies the existence of multiple variables, such as the participants' limitations in expertise and the characteristics of the scenarios being presented. These factors necessitate additional investigation in order to gain a deeper understanding of their influence on the outcomes.

Furthermore, it is imperative to acknowledge that the sample utilized in their study solely comprised of students, without taking into account their varied practical experiences or the diverse academic disciplines they were pursuing. The lack of diversity within the sample may have had an impact on the observed results. A more thorough examination of the students' academic disciplines, level of familiarity with the given scenarios, and proficiency in pertinent subject matter could yield valuable insights into the factors influencing their responses.

Shifting focus to additional elements of the model, the regression analysis yielded results indicating a statistically significant and inverse association between culture and fraudulent

behavior. This finding is consistent with prior research conducted by Stulz and Williamson (2003), Phau and Kea (2007), and Adamczyk and Hayes (2012). In contrast to the findings of Addai (1999), Garner (2000), Weaver and Agle (2002), Takyi (2003), Kirchmaier et al. (2018), and Fathalla et al. (2019), the present study did not observe a significant relationship between religiosity, law awareness, and behavior. The observed disparity can be ascribed to the divergent degrees of religiosity exhibited by the participants, which can be influenced by a myriad of factors.

The factors encompassed in this category consist of the wide range of religious affiliations, denominations, and spiritual traditions that are present among the participants, as well as the individual differences in how they evaluate their own level of religious dedication. Additionally, the religiosity levels of respondents may be influenced by their geographical origins and the sociocultural norms prevalent in their respective regions. Hence, a comprehensive examination is required to decipher the intricate factors that influence individuals' manifestations of faith and spirituality within the population under investigation.

Beyond the TPB framework and fraudulent behavior, the research extends its focus to encompass the crucial domain of fraud prevention mechanisms. As previously mentioned, the implementation of a comprehensive strategy is imperative in order to achieve successful fraud prevention. Internal controls, training and education initiatives, welfare programmers, and robust communication strategies are recognized as essential elements of this comprehensive approach.

Efficient internal controls play a crucial role in establishing a strong framework for preventing fraudulent activities. The purpose of these controls is to mitigate the potential for fraudulent activities by implementing rigorous checks and balances within the operational framework of an organization. A variety of measures are included in this framework, spanning from the segregation of duties to access controls and transaction monitoring. Internal controls serve as a robust deterrent against fraudulent activities by addressing vulnerabilities and strengthening the integrity of financial processes.

Training and education programmes are identified as an additional crucial component in the prevention of fraud. It is imperative to provide employees with education regarding the diverse manifestations of fraud, the resulting repercussions, and the ethical implications associated with fraudulent activities. These programmes enable individuals within an organization to identify possible warning signs and promptly report any suspicious activities. Moreover, the promotion of

a culture that upholds ethical conduct and ensures accountability is an additional aspect of training and educational programmes that supports a comprehensive approach to preventing fraudulent activities.

The implementation of employee welfare and well-being initiatives is crucial in the context of fraud prevention. The presence of job dissatisfaction, financial stress, and workplace pressures has the potential to induce individuals to engage in fraudulent behavior. Organizations that place a high value on the well-being of their employees through the implementation of equitable remuneration, conducive work environments, and opportunities for stress alleviation can effectively address these risk factors and diminish the probability of engaging in fraudulent behaviors.

Effective communication within an organization is of paramount importance in the prevention of fraudulent activities. The establishment of open channels of communication plays a crucial role in enabling the reporting of suspicious activities and ensuring that concerns are promptly and effectively addressed. Creating a work environment that fosters a sense of security and encourages employees to report concerns without apprehension of reprisal is instrumental in facilitating effective fraud prevention measures. The scope of effective communication encompasses the distribution of fraud prevention policies and procedures across the entire organization.

In brief, this study establishes a connection between theoretical constructs, as outlined by the TPB, and practical perspectives on mechanisms for preventing fraud. The results not only enhance the existing understanding of the mechanisms involved in fraudulent conduct but also emphasizes the necessity of adopting a comprehensive and proactive strategy for preventing fraud within organizations. The intricate interaction of various factors that impact fraudulent activities, combined with the diverse and intricate nature of strategies employed to prevent fraud, underscores the significance of continuous research and flexibility in organizational approaches to address emerging fraud risks. In the context of fraud, it is crucial for organizations to incorporate psychological insights and implement effective prevention mechanisms in order to protect assets, maintain reputations, and uphold principles of integrity and trust.

This study makes a substantial academic contribution to the disciplines of accounting and auditing, primarily by providing valuable practical insights into the realm of fraud prevention. This study offers guidance to human resource professionals by highlighting the significance of taking social

factors into account when making hiring decisions. It underscores the potential influence of individual attitudes and perceptions on unethical behavior within organizations. Moreover, this study suggests that educational institutions, specifically universities, should integrate ethics and fraud prevention into their curricula, based on the proposal of a comprehensive framework and solutions. The combined efforts of these contributions are directed towards the improvement of measures for preventing fraud, the promotion of ethical conduct, and ultimately the strengthening of the integrity of financial reporting and auditing practices.

Nevertheless, it is crucial to recognize specific limitations in this research that necessitate further investigation in subsequent studies. Initially, it is worth noting that the sample size utilized in this study consisted of 112 individuals who completed the questionnaires, along with an additional 6 participants who were interviewed. While this sample size was deemed appropriate for the preliminary investigation, it is important to acknowledge that it may be considered relatively small in relation to the population of Italy. Therefore, it is recommended that future research endeavors consider utilizing larger sample sizes in order to improve the generalizability and statistical robustness of the findings. Furthermore, it is important to note that the research sample consists solely of individuals residing in Italy. This particular characteristic of the sample introduces a potential limitation in terms of cultural and contextual specificity. Hence, it is recommended that forthcoming studies delve into the suitability of the suggested model in various national and cultural contexts, in order to evaluate potential disparities in results.

Furthermore, this study provides a theoretical examination of the effectiveness of Theory X/Y as a strategy for preventing fraud in relation to social factors. However, it is necessary to conduct empirical research in order to substantiate its practical efficacy in effectively reducing the risks associated with fraud. The research also acknowledges that an individual's position within a specific scenario can impact their ethical perspectives, indicating the necessity for additional investigation into the complex aspects of ethical decision-making within organizational environments.

Moreover, the present study was carried out in Italy subsequent to the pandemic, a timeframe characterized by instances of corporate and audit shortcomings, as well as widespread occurrences of fraudulent reporting. Future research endeavors could potentially derive benefits from

conducting investigations on this topic across various temporal and geographic contexts, in order to evaluate the reliability of findings and the potential impact of contextual factors.

Ultimately, further investigation could explore the enduring effects of education on the prevention of fraudulent activities. Longitudinal studies possess the potential to yield valuable insights regarding the efficacy of educational interventions in fostering ethical conduct and mitigating fraudulent behaviors over an extended period. The exploration of these potential areas for future investigation is crucial for the progression of the current comprehension of fraud prevention and the cultivation of ethical behavior within diverse organizational and cultural contexts.

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II. List of abbreviations

Abbreviation	***Stands for***
ACFE	Association of Certified Fraud Examiners
USDOJ	The US Department of Justice
ICAI	The Institute of Chartered Accountants of India
SEC	Securities and Exchange Commission
AICPA	American Institute of Certified Public Accountants
NFIB	The National Fraud Intelligence Bureau
KBR	Kellogg Brown & Root LLC
FCPA	Foreign Corrupt Practices Act
TPB	Theory of planned behavior
FB	Fraudulent behavior
ATT	Attitude
SN	Subjective norms
PB	Perceived behavior
RL	Religion
CL	Culture
LA	Law awareness
SIAS	Statements on Internal Auditing Standards

III. List of definitions

Term	***Stands for***
Fraud	Any illegal action or abuse which harms others with or without intent to harm them, as well as any action that misleads investors and other financial statement users.
Globalization	The process through which the interconnectedness of individuals from various countries grows and deepens.
Online fraud	Any illegal activity carried out via the internet or computers with the intent to harm others by stealing their money, stealing their confidential information to blackmail them, misleading them into making decisions, and taking their money for products or services without providing them with anything in exchange.
Financial statement fraud	The deliberate misrepresentation or omission of financial reporting numbers or disclosures to mislead financial statement users.
Asset misappropriation	Stealing the assets of a company or misusing the power given to a person to use a company's assets for personal use.
Corruption	Illegality; a malicious and dishonest purpose of circumventing the law's restrictions; and the conduct of an official or fiduciary who illegally and maliciously utilizes his position or character to get some profit for himself or another person, in violation of his responsibility and the rights of others.
Bribery	The act of offering, donating, receiving, or soliciting anything of value in order to sway an official act.
Ethical behavior	Any action that adheres to a set of universal application of ethical principles to all humans, regardless of context or circumstance.
Fraudulent behavior	Committing fraud (online fraud, financial statement fraud, asset misappropriation, and corruption), not adhering to the commercial laws and regulations of the country in which the employee resides, and not adhering to the company's financial internal policies.
Intention	The evidence of an individual's intention to perform a behavior.

Behavioral intention	The individual's sense of how likely they are to do something.
Attitude	The willingness and favorableness of an employee to engage in fraudulent behavior.
Subjective norm	The impact of people (including family, friends, colleagues, etc.) on an employee's perception to engage in fraudulent behavior.
Perceived behavior control	The perception of control that an employee feels like he or she has, and it is strongly influenced by the actual control given to that employee
Culture	A person's values, norms, beliefs, knowledge, and customs that aid in engaging in a fraudulent behavior.
Law awareness	A person's awareness and perception of the consequences of engagement in fraudulent behavior.
Religiosity	An individual's level of religiosity which discourage him from engaging in fraudulent behavior.
Red flags	Anything unique for the company or variables that increase the existence probability of committed fraud, such as debiting income from a credit account or crediting expenditure from a debit account.
Fraud analytics	The analysis that uses critical thinking abilities to synthesize the output of many approaches into a unified actionable analytical result.

IV. Questionnaire

Q1. Gender
- Male
- Female

Q2. Age
- 18 - 25 years old
- 25 - 35 years old
- 35 - 45 years old
- Older than 45 years old

Q3. What is your highest education level?
- Elementary school
- Secondary school
- High school
- Bachelor's degree
- Master's degree
- Ph.D
- Not educated

Q4. What is your position at the company you work for?
- Employee
- Assistant Manager
- Manager
- Director
- CFO
- CEO
- Unemployed
- Student
- Housewife
- Other

Q5. Company size
- Less than 10 employees
- 10 to 50 employees
- More than 50 employees
- Not applicable

Q6. Anti-corruption methods applied in the company
- Anti-corruption policy
- Anti-corruption mail communication and training
- Anti-corruption department
- No anti-corruption method
- Not sure
- Not applicable

Q7. Personal annual income
- Less than 30.000 euro
- 30.001 - 50.000 euro
- 50.001 - 70.000 euro
- 70.001 - 90.000 euro
- More than 90.000 euro

Q8. Courses studied during education period
- Accounting / finance courses
- Business ethics
- Management
- Economy
- Engineering (software, infrastructure, electrical, etc.)
- Languages
- Psychology
- Sociology
- Other courses

Q9. Of which of the following best describes you at the present time?
- Atheist (I don't believe in God)
- Agnostic (I believe we can't really know about God)
- Unsure (I don't know what to believe about God)
- Spiritual (I believe in God, but I don't practice)
- Religious (I believe in God and practice religion)

Q10. For the past year, how often have you done the following?

Statement	*Never*	*Yearly*	*Monthly*	*Weekly*	*Daily*
Thought about God					
Prayed					
Mediated					
Attended worship service					
Read/studied scriptures, holy writings					

The scenario given:
Please read this scenario carefully, and evaluate the following sentences. You are a division manager of a large public company. Your bonus is calculated on your division's net income targets that you must meet. This year's target is $1.5 million. You are authorized to sign off on any decision made within your division. You are faced with the following situation: On December 15, your division of the company ordered $1,500,000 worth of supplies in anticipation for the seasonal rush. These supplies were delivered on the evening of December 29 and you expect to use all of the supplies by the end of the year. If you record this supplies expense this year, your net income will be $1.45 million and you will not meet the target and will therefore not receive your bonus of $50,000 that you have worked hard for.

Statement	*Strongly disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly agree*
I intend to delay the recording of this supply expense to next year					
I will try to delay the recording of this supply expense to next year					
I will make an effort to delay the recording of this supply expense to next year					
Delaying the recognition of this supply expense to next year is good					
Delaying the recognition of this supply expense to next year is beneficial					
Delaying the recognition of this supply expense to next year is wise					
Most of my family members think that I should tempt to defer this supply expense to next year					
Most of my colleagues think that I should tempt to defer this supply expense to next year					

Most of my friends think that I should tempt to defer this supply expense to next year					
I have complete control of making the decision to defer the recognition of this supplies expense to the next year					
For me to defer the recognition of this supplies expense to next year is easy					
If I want to, I could easily defer the recognition of this expense to next year					
I feel I have strong ties with the community					
I feel I have strong ties with my peers					
My parents have strong ties with each other					
We have an intimate home environment					
Assuming that postponing the recognition of the expense is a fraudulent action, I would commit fraud to achieve my own goals					
If I commit this fraudulent act, I don't think I would be arrested by police					
If I commit this fraudulent act, I don't think I would be convicted by the court					

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