Compliance and Ethics Programs in Department of Defense Government: Relationship Between Compliance and Ethics Programs and Contracting Fraud Penalty Cost

La’Donna R. Davis, Juritsa Ford

Abstract: Compliance with regulatory directives has been at the forefront of concern regarding federal contract spending. Private firms, federal agencies, and scholars allocate tremendous amounts of time, effort, and resources to produce efficient methods and strategies to combat the proliferation of compliance infractions, that often result in sanctions. The purpose of this research is to assess the performance of companies with C&E programs and those without C&E programs. A literature review of historical and current unclassified government data was collected from several public U. S. Government systems to determine the statistical relationship between Compliance and Ethics programs and non-Compliance and Ethics program penalties. The population under study consisted of 49 DoD contractors totaling an aggregate value of $312.4 billion obligated contracting dollars. A total of 364 fraud cases and $6.2 billion in fines were identified in this study. The study concluded that companies with Compliance and Ethics had a statistically significantly higher penalties and a penalty ratio than those without Compliance and Ethics. However, there were no differences in dollars obligated based on Compliance and Ethics programs. The implication of Compliance and Ethics programs decreasing fraud penalties in DoD contracting supports the need for effective regulatory oversight within organizations and future research on the compliance and ethics programs of firms contracting with the DoD.

Keywords: Compliance, Effectiveness, Ethics, Compliance and Ethics Programs, Department of Defense (DoD) Contracting, Fraud, Regulatory Oversight, Penalty Cost, Penalty Occurrence

I. INTRODUCTION

Government contract fraud existed well before Congress enacted statutes, laws, and regulatory requirements to combat the frequency of fraud occurrence [26, 2]. Social media provides massive awareness of this subject to the public and maintains an important role in exposing misconduct and corruption across various sectors. Though efforts to contest fraudulent activity are enacted, instances of misconduct continue to grow exponentially [41]. The general problem is that the Department of Defense (DoD) continue to face vulnerabilities to contracting fraud, waste, and abuse due to weaknesses in five key areas: (a) sustained senior leadership, (b) capable acquisition workforce, (c) adequate pricing, (d) appropriate contracting approaches and techniques, and (e) sufficient contract surveillance [17]. The specific problem is that despite regulatory requirements to incorporate a Compliance and Ethics program, many organizations are not completely convinced that a Compliance and Ethics program has the propensity to mitigate and or minimize internal misconduct. However, these programs are mandatory, and all organizations must comply [17]. Regulators, prosecutors, governments, scholars, and other officials continue to examine methods by which prevention and deterrence of improper conduct permeates organizations of all types. In response to cases of misconduct and corruption, the government creates new legislations, and in most cases, amends pre-existing regulations [31]. In 2009, the Federal Acquisition Regulation (FAR) clause 52.203-13 was amended to include a section requiring the establishment of an effective compliance and ethics (C&E) program and internal controls system to increase ethical behavior, reduce misconduct, and maintain compliance with federal contracts [15]. According to Joint Publication 3-0, an official documentation of the United States Department of Defense, the measure of effectiveness is a criterion used to assess changes in capability, system behavior, or operational environments that are tied to measuring the attainment of an end state or desired result, achievement of an objective, or creation of an effect. Measurement of effectiveness is designed to correspond to the accomplishment of mission objectives and to assess whether the organizations comply with the set regulations [21]. This is because an effective measure of effectiveness must contextualize and take into consideration the compliance with the prescribed norms. Despite heightened awareness and legal requirements to maintain a C&E program, organizations continue to garner the spotlight of negative publicity due to compliance infractions. In 2018, the Office of the Under Secretary of Defense for Acquisition and Sustainment submitted a report to Congress outlining Defense Contracting [37]. According to the report, 443 fraud-related cases were filed, totaling $6.3 billion in recovered fines, penalties, civil judgements and more [37].
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On October 14, 2020, the Office of the Comptroller of the Currency (O.C.C.) released an article outlining a total assessment of $85 million worth of penalties against the United Services Automobile Association (USAA), due to failure to implement and maintain an effective compliance risk management program [35].

Because of the increase of unfavorable ramifications against organizations, stakeholders, stockholders, and in severe cases the economy, several Attorney Generals openly support compliance and ethics efforts in both private and public arenas [36, 4]. During the 2009 Foreign Corrupt Practice Act (FCPA) Conference, Former U. S. Deputy Attorney General, Paul McNulty quoted the adage, “The cost of non-compliance is great. If you think Compliance is expensive, try non-compliance” [10]. The emphasis of this statement was to increase awareness on the significance of complying with regulatory requirements.

The U. S. Department of Defense (DoD) continues to increase its private contracting, which unfortunately, opens more opportunities for organizational misconduct (i.e. fraud, waste, abuse, and mismanagement). As organizations struggle and even fail to establish adequate risk management measures, they become vulnerable to misconduct, compliance infractions, and penalties. When organizations fail to appropriately rectify possible compliance infractions, they may promote challenging conditions because the onus of misconduct detection and prevention begins with the organization. An effective C&E program is required by the Federal Acquisition Regulations (FAR) and Federal Sentencing Guidelines to identify cost-saving initiatives, analyze ethical and financial compliance concerns, and ultimately avoid costly consequences from non-compliance. With the rapid increase in government contracts, the need for adequate oversight and a strong culture of compliance, ethics, and risk management is essential.

This research assesses the relationship between C&E programs and non-C&E program penalties. This research contributes to a growing body of knowledge on the relationship between effective compliance and ethics programs. It further highlights penalty cost and penalty occurrence associated with misconduct and non-compliance infractions. This research study applies a comprehensive quantitative research model using independent sample t test to assess the relationship between C&E programs and non-C&E program penalties. Following the introduction is a literature review; hypothesis; methodology; results; limitations; and conclusion.

II. LITERATURE REVIEW

Despite organizational uncertainties regarding the impact of compliance and ethics programs and the complexities involved in DoD contracts, collectively they continue to gain significant attention [24]. DoD is unique in that it has two appropriation bills [24]. According to Needham [32], government reporting via The Department of Justice (DOJ) implies that there is a relationship between government contracting and incidents of fraud. The increase in compliance breach cases implicates the necessity for further research [32]. The foundation of research that grounds the bases for this study begins with understanding past and current compliance, ethics, and compliance and ethics programs. Compliance is “either a state of being in accordance with established guidelines or specifications, or the process of becoming so” [42]. A study written on corruption control highlights governing efforts established prior to the late 1940’s, which attempted to mitigate and prevent theft and bribery [3]. According to Perkins [38], it was critical for the government to regulate financial conflicts of interest in 1950 - 1980’s due to the incorporation of increased regulations. Due to the reactive environment of regulatory reform compliance to preexisting, current, and new legislation continues to necessitate efficient oversight. Compliance encompasses “efforts to ensure that organizations” follow industry regulations and government legislation [42]. Compliance requires companies to maintain full understanding of their regulatory compliance obligation to act according to behavioral standards.

Warburton [46] conducted research on ethics, germane to basic philosophy, and suggested that theoretical duty-based ethics, goal-based ethics, and rights-based ethics may have a role in business-centric interpretation and decision-making. Regarding duty-based ethics, or deontological ethics, Kant asserted that action should be ruled by acts that became universal law [6, 23]. Duty-based ethics purport that consequences that follow may be insignificant as long as duty was executed [46]. Goal-based ethics aims to maximize good results to balance pleasure in lieu of pain [33]. Goal-based ethics likens to the golden rule, accentuating concern for others. Rights-based ethics advocate endorsing individual human or legal rights. Rights-based ethics promotes rights to privacy, and to own property rights [33]. Conversely, philosophical rights diverge from positive and negative rights [47].

Current views suggest that ethics may be thought of as a method explained by a rational procedure of right behavior or what ought to be right behavior [44]. As a branch of moral philosophy, ethics may be defined by inherent views on right versus wrong or good versus bad [25, 7]. Stewart defined ethics in relation to processing moral choices [29]. A behavioral perspective maintains that ethics reflects how the moral choice is applied, regardless of legal consequences [19].

Behavior in organizations may be guided by Compliance and Ethics Programs, which “means a program designed to prevent and detect criminal conduct” [45]. Seven elements are necessary for organizations to have an effective compliance and ethics program according to subsection (f) of §8C2.5. An organization shall—

1. exercise due diligence to prevent and detect criminal conduct; and

2. promote organizational culture that encourages ethical conduct and a commitment to compliance with the law.

3. use reasonable efforts not to include any individual whom the organization knew or should have known through the exercise of due diligence, has engaged in illegal activities or other conduct inconsistent with an effective compliance and ethics program.
(4) take reasonable steps to communicate periodically and in a practical manner its standards and procedures, and by conducting effective training programs and otherwise disseminating information appropriate to individuals’ respective roles and responsibilities... members of the governing authority, high-level personnel, substantial authority personnel, the organization’s employees, and the organization’s agents.

(5) ensure that the organization’s compliance and ethics program is followed, including monitoring and auditing to detect criminal conduct; and to evaluate periodically the effectiveness of the organization’s compliance and ethics program; and §8B2.1; publicize a system, which may include mechanisms that allow for anonymity or confidentiality without fear of retaliation.

(6) be promoted and enforced consistently throughout the organization using appropriate incentives and appropriate disciplinary measures for engaging in criminal conduct and for failing to take reasonable steps to prevent or detect criminal conduct.

(7) take reasonable steps to respond appropriately to the criminal conduct and to prevent further similar criminal conduct, including making any necessary modifications to the organization’s compliance and ethics program… periodically assess the risk of criminal conduct and take appropriate steps to design, implement, or modify each requirement to reduce the risk of criminal conduct [45].

Limited research has focused on compliance in Department of Defense (DoD) contracting. Current work shows the evolution of compliance and ethics programs and links government contracting. Organizations do not represent typical offenders. Managing ethics in organizations includes a focus on moral trustworthiness across various stakeholder relationships [22]. Guidelines for individuals are geared towards punishment [30]. Conversely, organizational guidelines are geared towards providing restitution and appropriate fines for the organization through probation provisions [30]. Importantly, the guidelines focus on deterrent, and provide benefits for organizations that have an “effective program to prevent and detect violations of law” [30]. They provide means for rehabilitation via probation, and to institute and maintain an effective compliance program [30]. Compliance is designed to create new governance for organizations to incorporate and adapt to the legal, regulatory, and social norms [20]. Though the government made considerable improvements by establishing agencies such as but not limited to, Defense Audit Agency, Defense Contract Management Agency to audit and monitor contracts, the incorporation of new regulations to combat corruption increased the need to comply to new reforms. As such, the need to comply with the increased regulatory requirements necessitated incorporating compliance. As recent as November 20, 2020, the Department of Justice, Office of Public Affairs reaffirmed their position to hold contractors accountable for overcharging and causing the government to pay excessively for contracted goods and services [14].

Cognosante L.L.C., contractor (provides healthcare and information technology solutions) “agreed to pay the United States $18,987,789 to resolve allegations that it violated the False Claims Act by using unqualified labor and overcharging the United States for services provided to government agencies under two General Services Administration (G.S.A.) contracts” [14]. Acting Attorney General Jeffrey Bossert Clark of the Civil Division stated: “M.A.S. contract holders must deal forthrightly with federal agencies during negotiations and throughout the life of their contracts” [14]. A prior example exposes an employee of a government contractor who plead guilty “in a scheme to overbill a contract administered by the General Services Administration (GSA) by approximately $1.25 million, and to solicit and receive kickbacks from a subcontractor in exchange for providing that subcontractor valuable contract modifications” [13].

Elmer Baker, of Gulf Breeze, Florida, was the project manager for his company’s contract. “After his company awarded subcontract to a construction company for work on the facility, Baker began receiving kickbacks in the form of meals, golf sessions, vacations, and other things of value” [13]. Around 2015, he “demanded monetary kickbacks valued at 10 percent of the amount of each of the subcontract modifications that he awarded the subcontractor” [13].

Baker initiated inflated subcontract estimates, used fake invoices, and a shell company to receive payments over several subcontract modifications. “The Criminal Division’s Fraud Section is the nation’s leading prosecuting authority on government procurement fraud and corruption matters” [13]. Another recent case involves Green, an American military contractor, sentenced “to more than three years in prison for his role in a theft ring on a military installation in Kandahar, Afghanistan” [13].

Green’s imprisonment sentence was “followed by two months supervised release”, and restitution of $179,708, for “conspiracy to defraud the United States and commit theft of property (generators and a truck) of value to the United States worth over $300,000”, and other counts “with a third-country national middleman who facilitated the sale of the items to unknown persons in Kandahar, Afghanistan” [13]. Green aided and abetted co-conspirators in the creation of false official documents that facilitated “both the entry of unknown and unvetted Afghan nationals and their vehicles onto the military installation and effectuated the removal of the stolen property from the installation”, which “compromised the security of U. S. military and civilian personnel” [13].

Government fraud refers to intentional illegal acts of misrepresentation and deception, which subsequently interferes with government funding. Linder [24] states that fraud is “acts or attempts to defraud the Government or its agents, create a cause for disbarment or suspension, or violate the False Claims Act 31 U.S.C. 3729, or Anti-Kickback Act 42 U.S.C. 1320. This definition considers hidden defects where the product is structurally inferior, and half-truths. Defects can be deemed patent (easily discoverable) or latent (not easily discoverable) [24].

Regulatory oversight refers to the implementation of proper supervision over regulation efforts in practice. Proper regulatory oversight is critical in bridging the gap between official requirements for regulatory policy and the operation of accurate regulatory actions.
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Linder asserts that regulations are the “result of the Executive Branch implementing a statute or Executive Order or policy” [24]. “Contractors cannot perform inherently governmental functions” [24]. As such, managing risk and disruption necessitates that government contractors include compliance and ethics as a key activity aligned to their overall management strategy [24].

Penalty occurrence affects several aspects of contracting such as but not limited to competitive necessity and reputation.

A new law impacted contractor use of offshore subsidiaries to avoid certain payroll taxes [32]. “Several contractors stated that they initially used offshore subsidiaries to hire U.S. workers to perform services overseas in order to offer competitive prices when bidding for DoD contracts, and as this practice grew, it became a competitive necessity” [32]. Opportunism via reputation and continuity tends to be constrained through social sanctioning. The sanctions may include contraction or expansion of exchange with an organization, whereas the ultimate punishment is termination of the relationship. “Opportunistic parties’ punishment may extend to refusal to do business in the future. “Threats of future sanctions create disincentives for opportunism in the present, tending to motivate cooperative behavior” [8]. Tracking of penalty occurrence allows the performance and reputation of the contractor’s previous transactions to ascertain relatively easy. If the contractor were less than cooperative in the relationship, it would greatly damage its reputation with other firms [78]. Outlined in the U. S. Federal Sentencing Guidelines, chapter 8 offers incentives to organizations to reduce penalties and ultimately eradicate misconduct provided they have an established effective C&E program [16]. The Appendix outlines the base fine point system structure corresponding to the offense level [16]. In accordance with the United States Attorney Manual, penalty costs are not subject to organizations alone. Individuals are also held responsible for misconduct [12]. According to the Government Accountability Office [18], there are no all-inclusive, government-wide documents which categorizes specific fees, fines, or penalties. The Office of Management and Budget (OMB) and the Department of the Treasury (Treasury) report data that include collections at the budget account level, that covers a set of agency activities or programs [18]. Additional data, such as amounts of specific penalties, would increase transparency, and facilitate oversight [18]. Accordingly, such data could help identify some form of trend apparatus for government and contracting oversite.

In practice, compliance and ethics programs differ per organization, as it mainly operates from contractual requirements and the culture of the organization. Kaptein [22] maintains that this irregularity may affect its compliance and ethic programs effectiveness. There is a disparagingly large gap between compliance and ethics programs across private contracting companies [22]. Unfortunately, lack of continuity between the government and the compliance and ethics profession may lead to some compliance and ethics programs failure. Organizations may lose faith in effectiveness of compliance and ethics programs. Organizations could become vulnerable to various compliance infractions, likely to result in expensive penalty costs. A widespread body of empirical literature has examined code efficacy above any other element of compliance and ethics programs [28].

Few studies found positive connections between a successful program, which was measured by the increased ethical attitudes, and the existence of a code of conduct [1, 27], ethical behavioral intentions [5, 43], or a decline in the proclivity to participate in unethical behavior [39]. McKinney et al. [27] maintains that a code of business conduct promotes and positively influences the organizational workforce. While organizations have complete autonomy in creating their code of business ethics and compliance and ethics program the strategy is a critical factor to determine because it is the foundation from which the organization will grow ethically [9].

With or without a C&E program, DoD contracts are still subject to a level of misconduct due to human error. The literature review suggests a correlation between government contracting and breaches of compliance incidents, which is vital in this study. This research is positioned in the context of the need for continuing inquiry to enrich knowledge in the field of compliance and ethics programs’ effectiveness in government contracting.

III. RESEARCH STATEMENT, METHODOLOGY, AND DESIGN

This study analyzes the relationship between penalty variables and DoD contracting companies with and without C&E programs. To evaluate the relationship associated with penalties a series of tests are established using the number of penalty occurrences, penalty costs, and the ratios of those costs. The investigative inquiry addresses the posited research questions concerning the existence of a compliance and ethics program on performance, fraud occurrence, and penalty costs as related to government contracting. To test this, four possible hypotheses are created to evaluate penalty occurrences, penalty costs, penalty ratios, and dollars obligated between C&E programs and non-C&E programs. The testing is intended to establish whether C&E programs are beneficial in that they have the proclivity to mitigate and or minimize organizational misconduct and penalty variables. The following hypotheses are tested: The first hypothesis seeks to determine if there is an independence association between the presence of C&E and non-C&E programs and penalty occurrences. The test evaluates the relationship of whether companies with C&E programs are confronted with less penalty occurrences than companies without C&E programs. The null hypothesis is that no significant relationship or association exists between penalty occurrences of companies with or without the presence of a C&E program. The alternative hypothesis is that a significant relationship or association exists between penalty occurrences and companies with or without a C&E program. The second hypothesis seeks to determine the average amount of penalty cost paid by companies with and without C&E programs by dividing the penalty cost by penalty occurrences.
The test evaluates whether the average penalty cost paid for companies with or without C&E programs are higher or lower when divided by the penalty occurrences. The null hypothesis is that average penalty cost is higher between companies that have C&E programs compared to companies without C&E programs. The alternative hypothesis is that average penalty cost is lower between companies that have C&E programs compared to companies without C&E programs. Accordingly, the third hypothesis seeks to determine the percentage of penalties companies with and without C&E programs are paying by dividing total amount by total dollars obligated.

The test reveals the performance ratio associated with total penalties by total dollars obligated. The null hypothesis is that there is not a significant difference in penalty ratios paid between companies that have C&E programs compared to companies without C&E programs. The alternative hypothesis is that there is a significant difference in penalty ratios paid between companies that have C&E programs compared to companies without C&E programs. The fourth hypothesis seeks to determine if the government awards higher dollar contracts to companies with C&E programs than those without C&E programs. The test evaluates the amount of dollars obligated to companies with and without C&E programs. The null hypothesis is that there is not a significant difference in the amount of dollars obligated between companies that have C&E programs compared to companies without C&E programs. The alternative hypothesis is that there is a significant difference in the amount of dollars obligated between companies that have C&E programs compared to companies without C&E programs.

A. Methodology

The proposed research design enabled the ability to establish the statistical pattern between two seemingly interconnected variables, the performance C&E programs and non-C&E programs within DOD contracting companies. To test the hypotheses data was collected and measured from two separate unclassified government databases. It is a plan of selecting the sources and types of information that were used to answer the research hypothesis of the study. This section provides a framework that specifies the relationship between variables. The variables of interest include C&E programs and non-C&E program penalties. Penalty cost is measured by using the cost a company pays for committing an offence, while penalty occurrence is measured by using the dollars obligated. The less probable a company is prone to penalty occurrences the more likely dollars are obligated to the company. The study tests the hypothesis whether the inclusion of a C&E program positively impacts the performance, penalty cost, penalty occurrences, and dollars obligated to DOD contracting companies or not.

B. Data Collection and Analysis Tools

The sample for this research contains an accumulation of unclassified government data acquired from the System for Award Management (SAM) database, Project on Government Oversight (POGO), and other government records, and financial databases encompassing a time period of six years. SAM is the Official United States Government system that consolidates federal award data such as federal contracts, obligated award funding, and commencement dates in which the contracts were awarded. POGO uses the Department of Justice (DOJ) press releases to assemble and disseminate information regarding DoD federal contractor misconduct data (FCMD) by way of Contractor Misconduct. POGO provides a compilation of alleged misconduct as well as confirmed misconduct committed by the top federal contractors. Additionally, POGO provides data regarding the top federal contractors that were penalized, the occurrence of penalization, and the annual fraud penalties paid by the organizations dated from 1995 to current day [40]. For purpose of avoiding truncated data, this research limits data collection between the time frame of 2014-2019. For measurement, the top 100 DoD contracting companies were selected from the SAMs database and evaluated between the period of 2014-2019. Data cleaning was conducted prior to completing the analysis. Some of the aspects of data cleaning included evaluating each of the DoD contracting companies to determine (a) whether the organization maintained a Compliance & Ethics program, (b) instances of misconduct occurrences between 2014-2019, (c) penalty cost of misconduct between 2014-2019, and (d) the obligated cost allocated to the DoD contracting company. The main purpose of collecting the data was to test the hypothesis related to the correlation relationship between penalty cost and penalty occurrences of the top contracting companies with and without compliance programs in a six-year timeframe. After the data was cleaned, several data were now available for analysis which included data for firms with compliance programs and data for firms without compliance programs. Descriptive statistics as well as inferential statistics were used to analyze the data to answer the hypothesis of this study. Descriptive statistics was obtained for the data for firms with compliance programs as well as for firms without compliance programs. Similarly, independent sample t test which was the inferential statistics used in the study was obtained for companies with compliance programs as well as for companies without compliance programs.

IV. DATA ANALYSIS AND RESULTS

This section presents the findings of the analysis of the data that was collected. Both descriptive and inferential statistics were used to analyze and present the findings. The descriptive statistics covered means and standard deviation companies with and without C&E programs. Similarly, independent sample t test which was the inferential statistics used in the study was obtained for companies with compliance programs as well as for companies without compliance programs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penalty Cost</td>
<td>$27,653,802</td>
<td>$336,471,274</td>
</tr>
<tr>
<td>Dollars Obligated</td>
<td>$1,616,172,225</td>
<td>$8,020,811,475</td>
</tr>
</tbody>
</table>

Table 1: Descriptive Statistics with Compliance and Ethics Programs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penalty Cost</td>
<td>$6,246,498</td>
<td>$10,834,628</td>
</tr>
<tr>
<td>Dollars Obligated</td>
<td>$1,850,053,226</td>
<td>$3,016,498,701</td>
</tr>
</tbody>
</table>

Table 2: Descriptive Statistics without Compliance and Ethics Programs
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Table 1 and 2 presents the means and standard deviation of all the variables of interest. Outliers were removed; however, the standard deviation is large due to the mass difference in the amount of dollars obligated, ranging from $354 million to $47 billion with C&E programs, and $415 million to $9.2 billion without C&E programs. Additionally, the standard deviation for penalty cost is larger with C&E programs than without C&E programs due to the range of penalty cost per company, $0 to $1.8 billion with C&E programs, and $0 to $29 million without C&E programs.

The penalty cost and dollars obligated are presented for companies with C&E programs and those without compliance C&E programs. It is evident from the table that the mean penalty cost for companies with compliance ($27,653,802) is higher than that of companies without compliance ($6,246,498). However, the standard deviation for companies with compliance ($336,471,274) is also greater than that for companies without compliance ($10,834,628). The table also indicates that companies with compliance have higher mean dollars obligated ($1,616,172,225) than companies without compliance ($791,072,873). Moreover, companies with compliance programs have a higher standard deviation ($791,072,873). Moreover, companies with and without C&E programs have a higher standard deviation ($386,058,102).

To test the hypotheses of this study a chi-square test and an independent t-test are utilized. The results are as shown in table 3, table 4, table 5, and table 6. A chi-squared test (table 3) is used to evaluate the first hypothesis. The first hypothesis seeks to establish whether an independence association between the presence of C&E and non-C&E programs and penalty occurrences. Independent t-tests are used in tables 4, 5, and 6. The second t-test in table 4 evaluates the second hypothesis. This hypothesis is purposed to determine the average penalty cost by organization and completed by dividing the penalty cost and penalty occurrences. The third t-test in table 5 evaluates the third hypothesis. This hypothesis is established to observe the performance ratio associated with total penalties by total dollars obligated. The fourth t-test in table 6 evaluates the fourth and final hypothesis. This hypothesis is established to determine whether the government awards higher dollar contracts to companies with C&E programs than those without C&E programs by observing the amount of dollars obligated.

Table 3: Number of Penalty Occurrences with and without Compliance & Ethics

<table>
<thead>
<tr>
<th>Observed Occurrences</th>
<th>With Compliance &amp; Ethics</th>
<th>Without Compliance &amp; Ethics</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penalty Occurrences</td>
<td>31</td>
<td>3</td>
<td>34</td>
</tr>
<tr>
<td>No Penalty Occurrences</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td><strong>39</strong></td>
<td><strong>8</strong></td>
<td><strong>47</strong></td>
</tr>
<tr>
<td>Expected Occurrences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty Occurrences</td>
<td>28.21</td>
<td>5.79</td>
<td>34</td>
</tr>
<tr>
<td>No Penalty Occurrences</td>
<td>10.79</td>
<td>2.21</td>
<td>13</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td><strong>39</strong></td>
<td><strong>8</strong></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>

The test evaluates whether companies with C&E programs are confronted with less penalty occurrences than companies without C&E programs. The results of the chi-square test show an association between the presence of C&E programs and penalty occurrences ($\chi^2(1) = 5.85, \ p = 0.02$). The association indicates a difference in the two variables and penalty occurrence is not dependent upon whether a company has a C&E program or not. The inference is that regardless of a C&E program, companies are penalized for non-compliant infractions. A possible conclusion for this observation is that companies with C&E programs have higher penalty occurrences than without C&E programs due to the higher level of government scrutiny and oversight. The observed companies with higher penalty occurrences also had higher penalty costs. Further tests of the variables are conducted using subsequent t-tests.

Table 4: Average Penalty Cost by Organization t-Test: Two-Sample Assuming Unequal Variances

<table>
<thead>
<tr>
<th></th>
<th>With C&amp;E</th>
<th>W/o C&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>$4,477,068</td>
<td>$2,459,522</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>$7,519,005</td>
<td>$5,185,627</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td><strong>Hypotthesized Mean Difference</strong></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>df</strong></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>t Stat</strong></td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td><strong>P(T&lt;=t) two-tail</strong></td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td><strong>t Critical two-tail</strong></td>
<td>2.13</td>
<td></td>
</tr>
</tbody>
</table>
The results of the t-test demonstrate companies with C&E programs have higher average penalties compared to companies without C&E programs ($t(15) = 9.0, p = 0.38$). The difference between the average of companies with C&E and without C&E is not big enough to be statistically significant. These results may be due to the small and disproportionate sample sizes of companies with C&E programs (33) and without C&E programs (8). Additionally, some companies may have been penalized without cost implications.

The data reflects average penalty cost by penalty occurrences and includes companies penalized (penalty occurrences) without cost implications associated therein, which can impact the overall output of average penalty costs [11]. Under FAR 3.104-7, contractor penalties may include other penalties that are not associated with cost (i.e. of the contract, suspension, debarment). Furthermore, there may be a conflict of interest with regards to compliance with the established rules. Arising out of the executive arm of the government laxity to comply with the C&E program and its failure to actuate penalty costs.

Table 5: Penalty to Dollars Obligated t-Test: Two-Sample Assuming Unequal Variances

<table>
<thead>
<tr>
<th></th>
<th>With C&amp;E</th>
<th>W/o C&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.027</td>
<td>0.003</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.059</td>
<td>0.004</td>
</tr>
<tr>
<td>Observations</td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>2.32</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.027</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2.03</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 provides information regarding penalty ratios in which companies are paying. The ratios are totaled by dividing penalty cost and dollars obligated. This information is significant to determine the performance ratio associated with penalties of total dollars obligated. The t-test indicates companies with C&E programs on average had higher penalty ratios compared to companies without C&E programs ($t(33) = 2.32, p = 0.027$). A possible conclusion for this observation may be due to the fact that the companies observed with C&E programs were awarded higher obligated dollars from the government than companies without C&E, thus penalty cost percentages were higher when sanctioned by the government. Further observation is required to determine the significance in the amount of dollars obligated between companies that have C&E programs compared to companies without C&E programs.

Table 6: Amount of Dollars Obligated with and without C&E t-Test: Two-Sample Assuming Unequal Variances

<table>
<thead>
<tr>
<th></th>
<th>With C&amp;E</th>
<th>W/o C&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$4,715,875,929</td>
<td>$1,850,053,226</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>$8,506,816,767</td>
<td>$3,016,498,701</td>
</tr>
<tr>
<td>Observations</td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>1.308</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.200</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2.035</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 provides information to determine whether the government awards higher dollar contracts to companies with C&E programs than those without C&E programs. The t-test indicates there is not a difference in the amount of dollars obligated between companies with versus without C&E programs ($t(33) = 1.308, p = 0.200$). The difference between the average of each column is not big enough to be statistically significant. The observation indicates that the implementation of a C&E program does not guarantee companies will receive higher obligated dollars. Therefore, the overall conclusion of this observation is that the US government does not view C&E programs as a measure of insurance; or does it utilize the absence or presence of a C&E program as a criterion for awarding higher dollar contracts.

V. LIMITATIONS

As with any study the present research has identified limitations. This research focuses on the relationship between C&E programs and non-C&E program penalties between the top 49 consecutive contracting companies between 2014-2019. There are several factors involved in managing an effective compliance and ethics program which encompasses but is not limited to: the culture of the organization, budget of the organization, the experience and knowledge of the C&E professionals working within the compliance and ethics program. The aforementioned factors, to include several other factors are very vital in the success and efficiency of an effective compliance and ethics program. Such information was not used in the study due to the scope. Incorporating these factors would have created too large of a study, thus convoluting the intent and purpose of this study.

Another limitation is represented by the methodology, as the scope of research did not include opportunity for random selection. Future research should include the prospect to approach this topic from a broader range of time, to assess data of pre- and post-non-compliance effects of private government contracts. Such data may provide insight on process-related reform acumen to distinguish effective and ineffective compliance programs.

VI. CONCLUSIONS

This research study applied a comprehensive quantitative research model via chi-squared test and independent sample t-test. Results of the chi-square indicate that there was an association between the presence of C&E programs and penalty occurrences. This was then further evaluated with independent sample t-tests. The chi-squared test and independent sample t-test were utilized to measure the performance of companies with C&E programs and those without C&E programs. The study concluded that firms with C&E programs had statistically significantly higher penalties and a significantly higher penalty ratio than those without C&E programs. However, there were no differences in the amount of dollars obligated between companies with C&E programs compared to those without C&E programs. Multiple testing and specifications were measured, which reflected by normal standards, the association between the variables reproduced relationship to Compliance and Ethics programs and the impact of the occurrence of penalties, albeit weak.
Compliance and Ethics Programs in Department of Defense Government: Relationship Between Compliance and Ethics Programs and Contracting Fraud Penalty Cost

Fraud assessors often encounter compliance and ethical challenges. Upholding a code of professional conduct in government contracting is essential for practice, and for reputation. Maintaining an effective compliance and ethics program is critical to support an organization’s regulatory oversight and to mitigate risk sanctions. The implication of Compliance and Ethics programs decreasing fraud penalties in DoD Contracting includes the demand for further research on the importance of establishing effective Compliance and Ethics programs for ultimate mitigation within organizations.

This study evaluated the effectiveness of compliance and ethics in government contracting with organizations (with and without ethics and compliance programs). Besides a code of ethics, there are other measures from which effectiveness can be measured. This study is limited in scope due to the lack of time and resources. Effective professionals most of the time require professional training. Future research can be evaluated from the perspective of whether individual compliance and ethics professionals managing the department is experienced enough to perform the necessary requirements of an effective program. Questions to consider include: 1) is there is an educational, certification, or training requirement to manage the program, if so, what skill set would an effective compliance and ethics professional need; and 2) do professionals with proper credentials provide more effective compliance and ethics program; and 2) do professionals with proper credentials provide more effective programs? There appears to be an abundance of research yet to be uncovered regarding the effectiveness of a compliance and ethics program within government contracting, specifically, impacting the reduction of fraud occurrence and penalty cost.

REFERENCES


AUTHORS PROFILE

La’ Donna Davis is a Board-Certified International Compliance and Ethics Professional (CCEP-I) through the Society of Corporate Compliance and Ethics (SCCE). Davis has expertise in Federal and State contract, program, and compliance management. She is very passionate about education, cultural diversity, and encouraging aspiring student to higher learning. Davis attended Texas Southern University and Regis University. She earned a Bachelor of Business Administration degree in Accounting and a Master of Business Administration in Finance & Accounting. Currently, she is pursuing a Ph.D. in Business Administration at Hampton University, VA.

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