Integrity Systems in Construction Organizations in Zambia

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Abstract: The construction industry is prone to unethical practices as reported in construction literature world-wide. There is a need for construction organizations to put in place methods for detecting and combating wrongdoings. The purpose of the study was to develop a method for assessing the presence of integrity systems in construction organizations. Interviews, a questionnaire survey and three case studies were used to collect data. The study established the need for the development of a method for assessing the presence of integrity systems in construction organizations. The framework developed to achieve this is presented. The study established that integrity systems in construction organizations that were sampled in Zambia were moderately developed. The framework to assess the presence of integrity systems reported in this paper could be a useful tool in evaluating ethical compliance in construction organizations. It could be used as a tool for self-assessment by construction organizations. Self-assessment can bring to management’s attention areas that require improvement.

Keywords: Construction organizations, integrity systems, unethical practices, Zambia

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1 INTRODUCTION

There is consensus both within and outside the construction industry that corruption and other unethical practices are endemic world-wide. Organizations, including those in construction, need to put in place systems for detecting and minimizing unethical incidences. Failure to detect and address unethical practices could lead to dire consequences for companies. Doran (2004), for example, cited companies that had folded up as a consequence of unethical practices. Not long ago, Enron, WorldCom and Tyco were model companies setting pace for American businesses (Doran 2004). These companies have since become synonymous with greed and corporate malfeasance, leading to tremendous losses in shareholder value, trust and a long list of legal battles. Losses resulting from unethical malpractices have been immense, but chief among them was the eroded trust and reputation, leading to the total collapse of the corporations.

Several models and frameworks have been suggested over time to address integrity and ethical compliance in organizations. They include those advocated by Kohlberg (1959), Bommer et al. (1987), Stead et al. (1990), Jones (1991), Wittmer (2002), Liu et al. (2004), Kaptein and Avelino (2005), Svensson and Wood (2007), McDevitt et al. (2007), Barnard et al. (2008), Green and Walker (2009) and Dubinsky and Richter (2009) However, none of the models examined are specific to addressing unethical challenges in construction organizations.

2 UNETHICAL PRACTICES IN THE CONSTRUCTION INDUSTRY

Being a multi-billion dollar industry, construction is a fertile sector for economic crimes that include fraud, bid-rigging, bribery, collusion, coercion, misrepresentation of facts and extortion (Shakantu and Chiocha 2009). Unethical practices are prevalent in construction industries of both developed and developing countries.

2.1 Unethical Practices in Developed Countries

Doran (2004) stated that 61% of respondents to his study in the construction sector in the USA agreed that the industry was tainted with unethical practices. Eighty-four percent of sampled respondents who included clients, architects, construction managers, contractors and sub-contractors agreed that they had experienced, encountered or observed unethical practices in the construction sector. Thirty-four percent had experienced unethical conduct on many occasions. Doran (2004) reported that 69% of respondents stated that

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the construction industry needed to pay more attention to ethical issues.

Vee and Skitmore (2003) also shed light on the problem of unethical practices in the construction industry in Australia. They highlighted conflict of interest, collusion, fraud and corruption as being endemic in the construction industry in that country.

2.2 Identified Unethical Practices in Asia

Unethical practices have also been cited in construction industries of Asian countries. In Pakistan, Ehsan et al. (2009) reported that 75% of respondents to a questionnaire in that country agreed that there were unethical practices in the construction industry. All the respondents agreed that they had experienced some degree of unethical conduct in the form of: individuals or companies undertaking work beyond their capability; bribery; favoritism; and unfair conduct. Abdul-Rahman et al. (2010) also reported that 74% of respondents to a questionnaire survey in Malaysia agreed that the construction industry was tainted by unethical practices. Under-bidding, bid-shopping and cutting, corruption, negligence, front-end loading, claims and payment games were among reported unethical practices prevalent in Malaysia. More than two thirds of respondents in the study of Abdul-Rahman et al. (2010) were not satisfied with the quality of construction industry products. Ninety percent of the respondents stated that unethical practices contributed to poor quality works. In the study by Zou (2006), it was established that in China, corruption existed among all stakeholders and at every phase of project procurement from conception, design, tendering and construction, right through to commissioning and handover. Zou (2006) criticized the effect of corruption in China, where newly constructed bridges and dams collapsed and just-completed highways showed signs of failure soon after completion.

2.3 Unethical Practices Cited in Africa

In Africa, Oywobi et al. (2011), Shakantu (2006), Shakantu and Chiocha (2009), Osei-Tutu et al. (2009), Bowen et al. (2007a), Bowen et al. (2007a) and Mwiya et al. (2009) reported the prevalence of unethical practices in Nigeria, Malawi, Ghana, South Africa and Zambia respectively. Identified unethical practices included: collusion; price differentiation; bid rigging; tampering with claims and payment certificates; conflict of interest; bribery; embezzlement; tender manipulation; negligence; lack of integrity; and fraud.

2.4 Prevention of Unethical Practices

The focus on ethics and integrity systems support organizations and their employees when operating in an environment where the law is not clear. Integrity has been found to be a central trait of effective leaders and a key determinant of trust in organizations (Barnard et al. 2008). It is considered an essential component of productive work relationships and well-being of organizations.

For many years, the construction industry has been criticized for its inability to innovate and adapt to modern management methods (Fewings 2009). Unethical practices in the industry are a calamitous cancer eroding billions of dollars in lost resources that could be utilized for development of national infrastructure. To address challenges arising from ethical malpractices, Transparency International (2006) advocated for: a Code of Ethics; civil society participation and oversight; whistleblower protection; conflict of interest rules; integrity pacts and debarment; rigorous prosecution; widely publicized contracting opportunities; awards to companies that meet contractual requirements and make best offers; clear and fair procurement rules; transparent, predictable procurement processes and results; and accountable public sectors.

3 INTERNATIONAL DEVELOPMENTS IN INTEGRITY STANDARDS

Many countries have legislated against corruption and other unethical practices, not only in construction, but other industries as well. Efforts are being taken to increase ethical standards and integrity among professionals in many regions of the world.

3.1 Developments in Enhancing Integrity in South Africa and the USA

According to Pearl et al. (2005), legislation relating to the built environment professional sector in South Africa was overhauled in the 1990s and a new suite of Acts of Parliament were promulgated in 2000 to enhance professionalism in the industry. In the USA, the Construction Management Association of America updated its Code of Ethics to include a wider range of professional services among construction players (CMAA 2006). Izraeli and Schwartz (2000) also stated that in 1991, the USA Congress enacted the Federal Sentencing Guidelines. The aim was to create incentives for ethics compliance programs. The guidelines also impose sentences on offenders as deterrence; encourage development of internal mechanisms to identify, report, and prevent unethical practices in organizations; and to apply punishment justly.

3.2 Legislation Against Bribery in the United Kingdom

The government in the United Kingdom (UK) passed the Bribery Act of 2010 (Shamdasani 2012). The Act is an anti-corruption law which introduced an offence of failure by an organization to prevent bribery. Sham-
dasani (2012) stated that the Bribery Act encourages growth and reward of companies that are ethically managed. The Law is applicable to UK companies that operate within the country and abroad. If a company has procedures to prevent bribery, such structures could be used as defense in courts of law, but not as a mitigation factor. As a result of this piece of legislation, many construction organizations in the UK have sought ways of putting controls in place to detect wrongdoing. Arising from this Act, the British Standards Institute (BSI 2011) developed an Anti-bribery Management System (ABMS) referred to as BS 10500:2011. BS 10500:2011 aims to put controls in place to identify risks early and take appropriate action. The other objective of BS10500:2011 is to ensure that member organizations, on certification, have robust anti-bribery practices in place.

3.3 Importance of Certification in Organizations
Ethics Intelligence (2012) stated that organizations develop anti-corruption compliance programs for various reasons, depending on their business strategy. Others go a step further to seek certification. According to Ethics Intelligence (2012), the advantages of certification include: increasing visibility of commitments; fostering employee support for compliance programs; promoting a clear and identifiable standard for compliance policies and procedures; providing quality assurance of compliance programs and a benchmark against other companies; and gives evidence of a company’s compliance efforts to prosecutors. Certification increases the visibility of management commitments to prevent misconduct. In the current era of increased public hostility towards ethical misconduct, it has become crucial for companies to prove their commitment to honesty and transparency. Compliance certification encourages companies to implement prevention policies and procedures designed not only to reduce legal risk, but also to gain a competitive advantage over others. Whether during an investigation or prosecution, certification provides judicial authorities with externally verifiable evidence of steps taken by a company to prevent misconduct. In terms of ethical compliance, certification is the emerging next frontier for construction organizations to embrace modern management systems.

4 INTEGRITY LEGISLATION IN ZAMBIA
In Zambia, various pieces of legislation have been put in place to combat corruption and other illegal activities. These include the Anti-Corruption Act No. 42 of 1996, the Zambia Public Procurement Authority Act No. 12 of 2008, the National Council for Construction Act of 2003, and the Public Interest Disclosure (Protection of Whistleblowers) Act No. 4 of 2010. The Penal Code Act, CAP 87 is the principal legislation prescribing penalties for crimes and criminalizing certain practices relating to procurement of infrastructure in Zambia. This Act contains a number of provisions, among them, those dealing with corruption, abuse of office and the exercise of public authority. The Competition and Fair Trading Act, CAP 417 of 1994 of the Laws of Zambia was enacted to encourage competition in the economy by: prohibiting anti-competitive trade practices; regulating monopolies and the concentration of economic power; protecting consumer welfare; strengthening efficiency of production and distribution of goods and services; and expanding the national entrepreneurial base.

5 STUDY METHODOLOGY
This paper presents the findings of a study into unethical practices in the construction industry in Zambia. The main objective of the study was to develop a framework for assessing the presence of integrity systems in construction organizations in the country. Structured interviews and a questionnaire survey were used to collect data. The data was collected between August 2011 and June 2012.

5.1 Structured Interviews
A purposive, non-probability sampling method was adopted for interviews. Fifteen professionals with 10 to 35 years of experience in the construction sector were identified and interviewed. The interviewees were from the public sector, quasi-government organizations, private companies, co-operating partners and other stakeholders such as Transparency International Zambia, the Anti-Corruption Commission and the Zambia Public Procurement Authority.

Interview questions were pilot-tested on an architect, an engineer and a quantity surveyor. These were identified to be from the three main professions in construction in Zambia at the time of the study. The purpose of the pilot was to determine whether the questions and instructions were clear and unambiguous and if respondents found the questions appropriate. All questions that were inappropriate were either reconstructed or removed. It was established that respondents preferred to remain anonymous as most of the questions were sensitive. Information identifying individuals and the organizations they represented was removed to maintain anonymity.

5.2 Questionnaire Survey
A stratified random sample was used in the questionnaire survey. Stratified random sampling ensures that a sample adequately represents selected groups in the population. The first step was to classify the population into strata, or groups, on the basis of common
characteristics such as profession. The classification was done so that every member of the population was found in one and only one stratum. Separate random samples were then drawn from each stratum. The population was divided into: consulting firms representing engineers, architects and quantity surveyors; contractors; major project sponsors; other groups such as the Anti-Corruption Commission, Transparency International Zambia, National Council for Construction, and Zambia Public Procurement Authority; as well as co-operating partners such as the World Bank, Danish International Development Agency, European Union, Japanese International Co-operation Agency, German Technical Co-operation and the Department for International Development. A stratified group of 361 firms were sampled out of a population of 565 companies as indicated in Table 1.

Three hundred and sixty-one copies of the questionnaire were prepared for distribution among the targeted sample. Since 71 of the sampled organizations could not be located, only 290 of the prepared questionnaires were administered either by hand or email. Seventy-four completed questionnaires were received after follow-up telephone calls and reminder emails. Using the formula by Neumann (2000), the active response rate was calculated as 26%. Easterby-Smith et al. (2006) stated that the expected construction industry norm is of the order 25% to 30% if appropriate measures for increasing the response rate are undertaken. Therefore, the response rate of 26% was determined to be acceptable.

6 INTEGRITY INDICATORS

The development of the framework for assessing the presence of integrity systems in construction organizations was achieved by taking into consideration reviewed literature, interviews and questionnaire survey results. The framework comprises the processes that influence the integrity capabilities of an organization. It is aimed at providing construction organizations with a tool for assessing the presence of integrity systems and to determine and put in place strategies to bridge identified gaps. The need for an effective and structured instrument for managing systems in construction organizations cannot be over-emphasized. It is important for the purpose of innovation, efficiency and effectiveness (Kululanga 1999). Kanoglu and Gulen (2013) advised that the construction industry need practical models that do not create resistance from professionals and can easily be implemented in practice. Egan (1998) also advocated for the development of management measuring instruments that should help the assessment of construction organizations’ capabilities as one of the means towards modernizing business processes of companies in the sector.

Interviewees and questionnaire respondents identified various unethical practices, out of those brought to light from reviewed literature, that were prevalent in the construction industry in Zambia. They included: compromise on quality of goods or works; leaked project base cost; ambiguous variations; collusion; conflict of interest; false representation of facts; corruption and bribery; unfair tendering process; lack of confidentiality; systematic concealment of errors; and fraud. In spite of the various unethical practices identified, it was established that 74% of the respondent firms to the questionnaire did not have systems in place for assessing compliance to integrity. Systems to assess the presence of integrity in construction organizations were lacking. It was therefore determined important that a framework for assessing the presence of integrity systems be developed for construction organizations.

From the reviewed literature, results of the interviews and the questionnaire survey, it was determined that the statement indicators identified and discussed below were important in the assessment of the presence of integrity systems in construction organizations.

<table>
<thead>
<tr>
<th>No.</th>
<th>Stratum</th>
<th>Type of organization</th>
<th>Population</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Consultants</td>
<td>Zambia Institute of Architects</td>
<td>92</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Architects</td>
<td>Association of Consulting Engineers</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Engineers</td>
<td>Institute of quantity surveyors</td>
<td>39</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Grades 1-3 Contractors</td>
<td>Association of Building Contractors</td>
<td>364</td>
<td>187</td>
</tr>
<tr>
<td>3</td>
<td>Clients</td>
<td>Major project promoters</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Interest groups</td>
<td>Anti-corruption Commission, Transparency International Zambia, National Council for Construction, Zambia Public Procurement Authority</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>565</td>
<td>361</td>
</tr>
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</table>
6.1 Organizational Strategy

Ethics should be embedded in individual practices of persons that conceive the idea of establishing a construction organization. This is important at conception of a construction organization right through its development and operation. Clear vision, mission, values, strategic objectives and operational plans incorporating ethics are cardinal in ensuring compliance to ethics. A definite and clear strategy was identified as a starting point in the development of ethical compliance in construction organizations. Ethics embedded in an organization’s strategy form the bedrock for compliance. In their study, Zayed et al. (2012) also identified clear vision, mission and goals as critical success factors affecting organizational performance.

6.2 Leadership Commitment to Ethics

Top leadership practices reflect on the whole organization (Doran 2004). Kaptein and Avelino (2005) stated that good leadership serves as a role model, leads an organization by example, and helps to develop strategies in combating unethical practices. Good leadership is also important in the formulation, dissemination and enforcement of Codes of Ethics for organizations. Leadership, according to Dubinsky and Richter (2009) addresses how an organization is accountable for promotion of ethics and integrity. Kaptein and Avelino (2005) stated that two major requirements that have to be met to improve the ethics of business are increasing management awareness of irregularities within the organization; and increasing management sensitivity regarding the extent to which an organizational structure and culture stimulates ethical conduct. Kaptein (2003) observed leadership is not only in the sense of setting a good example, but also stimulating ethical conduct of employees, having a sound understanding of ethics quality and progress of the organization, and taking appropriate measures on the basis of that knowledge.

In the study, 14 out of 15 interviewees identified top leadership commitment as one of the factors at organizational level that lead employees to act ethically. In the questionnaire survey, 94% of the respondents also agreed that top leadership commitment to ethical programs can be used to assess the presence of integrity systems in an organization. Results of the questionnaire survey also indicated that the role of leadership was to provide strategic direction on ethics; formulate, disseminate and enforce the Codes of Ethics; and provide the character of the organization. Ninety-six percent of the respondents further stated that having good and committed leadership to ethics was important in combating unethical practices.

6.3 Existence of Formal Structures

Formal structures include the way a company organizes its ethics function as part of its overall business strategy. Dubinsky and Richter (2009) stated that infrastructure covers how the ethics function is structured, staffed, and resourced, as well as its formal and informal reporting relationships. Infrastructure also includes the roles and responsibilities of those individuals who are assigned to implement the ethics and integrity function. Existence of formal structures signifies the integration of the ethics function into the organization. Sixty-six percent of the respondents to the questionnaire survey agreed that the existence of corporate structures to support ethics can be used to assess the presence of integrity systems in an organization. Nine out of 15 of the interviewees also agreed to this assertion. In their study, Zayed et al. (2012) also identified organizational structures as one of the critical success factors affecting organizational performance.

6.4 Existence of an Ethical Culture

Organizational culture includes both written and unwritten rules that dictate how work is performed. The existence of an ethical culture explores the degree to which an organization focuses on shaping its ethical conduct through mission, vision, strategy and structure. Bommer et al. (1987) stated that an organization’s culture is reflected in the attitudes and values, management styles and problem solving behavior of its employees. In the interviews, 13 out of the 15 interviewees agreed that organizational culture was one of the factors that led employees to act ethically. Eighty-six percent of the respondents to the questionnaire survey also agreed that organizational culture can be used as means to assess the presence of integrity systems in an organization.

6.5 Code of Ethics

A Code of Ethics prescribes how employees are expected to conduct themselves when faced with an ethical dilemma (Liu et al. 2004). The results of the interviews indicated that 11 out 15 interviewees agreed that the existence of a Code of Ethics in an organization can be used to assess presence of integrity systems. Interviewees also agreed that lack of effective communication and dissemination of the Codes of Ethics; inconsistencies in its application; and the failure to punish persons who breach it were major obstacles in the implementation of the codes in construction organizations in Zambia. Ninety-three percent of respondents agreed that the existence of a Code of Ethics can be used to assess the presence of integrity systems in construction organizations. However, the construction industry is comprised of diverse professional groups, each with its own Code of Ethics. Eight-nine percent of the respondents to the questionnaire agreed that having an industry-wide Code of Ethics was one of the solutions to combating unethical practices in the construction sector.
6.6 Compliance Programs

Kaptein and Avelino (2005) stated that a compliance program articulates a company’s business values, principles and standards. Kaplan (2011) identified: effectiveness in helping companies detect wrongdoing early; employees’ likelihood to report wrongdoing within the company; opportunities for whistleblowers to report misdeeds and the company to deal with unethical practices internally; demonstration to stakeholders and clients that the company is responsible and trustworthy; and in some countries, punishment due to unethical misconduct may be less severe for companies as positive aspects of having compliance programs in place.

Results also indicated that 11 out of 15 interviewees and 94% of respondents to the questionnaire survey agreed that the existence of compliance programs can be used to assess the presence of integrity systems in organizations.

6.7 Training and Education

Doran (2004) stated that to help ensure ethical compliance in an organization, there was need for more training and education in ethics. Ninety percent of respondents to the survey by Doran (2004) agreed to this statement. Kidd (2011) argued that in today’s dynamic environment, with diverse job requirements, training needs to be relevant, frequent and targeted at each particular audience. Ten out of 15 interviewees in the study reported in this paper agreed that provision of training and education in ethics was one of the strategies necessary to prevent unethical practices in organizations. Ninety-seven percent of respondents to the questionnaire survey also agreed that the extent of training and education provided in ethics should be considered in the assessment of the presence of integrity systems in an organization. Ninety-six percent of the respondents stated that training and education in ethics is an important tool in combating unethical practices.

6.8 Communication of Ethical Issues

Communication describes how ethics and integrity are articulated and promoted, both internally and externally (Dubinsky and Richter 2009). Results of the interviews indicated that 13 out of 15 interviewees agreed that frequent communication of ethical issues to employees should be one of the strategies in the prevention of unethical practices in an organization. Ninety percent of respondents to the questionnaire survey agreed that the frequency of communication of ethical issues to employees in an organization can be used to assess the presence of integrity systems. An organization needs to have a clear communications strategy with regard to ethical matters.

6.9 Reporting Systems of Unethical Conduct

Reporting systems include how ethical misconduct and dilemma are reported within the organization and to external parties such as law enforcement agencies. Transparency International (2008) stated that, if put in place, a framework within an organization to deal with self-incrimination and whistle blowing could determine levels of integrity. Kaptein and Avelino (2005) stated that once identified, measures should be undertaken to understand unethical practices, root causes and how to deal with them in the future should they recur. Results of the interviews indicated that 14 out of 15 interviewees agreed that reporting systems should be one of the strategies to combat unethical practices. Ninety-four percent of questionnaire respondents agreed that reports of unethical behavior can be used by management in an organization to assess presence of integrity systems.

6.10 Disciplinary and Reward Procedures

Disciplinary and reward procedures outline how an organization promotes ethical conduct through performance appraisal. Ethical compliance should also be linked to compensation (Dubinsky and Richter 2009). The results of the interviews showed that 12 out of 15 interviewees agreed that the type of internal disciplinary procedures was one of the factors that led employees to act ethically. Eighty-six percent of the questionnaire respondents agreed that the type of punitive and reward system put in place can be used to assess the presence of integrity systems in an organization. Eighty-five percent of the respondents stated that punishment and cancellation of practicing licenses of offenders based on Codes of Ethics should be one of the solutions to combating unethical practices in construction organizations. Eighty percent of respondents advocated for indictment and conviction of offenders.

7 FRAMEWORK FOR ASSESSING INTEGRITY SYSTEMS IN CONSTRUCTION ORGANIZATIONS

The framework for assessing the presence of integrity systems in construction organizations, shown in Table 2, was constructed by taking into consideration the ten statement indicators discussed above.

7.1 Importance of Elements in the Framework

Each element in the framework addresses a certain area in the management process aimed at improving ethical compliance in an organization. All elements contribute to the overall ethical health of an organization. The framework was developed based on statement indicators that were linked to scores. The scores provide an
overview of the strengths and weaknesses of integrity capabilities of construction organizations. Each element of the framework was sub-divided into five separate scores. Score 5 was the highest, depicting ethical compliance. Score 1 was the lowest and indicated lower or non-compliance to ethics in a construction organization.

7.2 Importance of Scores of Elements in the Framework

The scores facilitate rapid assessment of the presence of integrity systems in construction organizations for each element in the framework. The various elements are aggregated and a mean calculated to determine the overall score for an organization. The overall Score of 1 or 2 meant that the performance of the organization on integrity compliance was below average, suggesting lower or nonethical compliance in the organization; while Score 3 was average, indicating that ethical systems were fairly developed. Scores 4 or 5 were above average and indicated that the organization had well established ethics programs with respect to all the elements.

7.3 Validation of the Framework

Having developed the framework, it was next validated. Validation implies that something is verified and that the adjudication is conducted by a person or body competent to judge (Muya 1999). The competence of the adjudicator has to be specific to that which is being judged. The validation process is an important step to guarantee that the developed model best fits the available data (Zayed et al. 2012). Models are tested statistically, logically and practically to determine whether they are efficient in predicting real world results. Macal (2005) stated that verification and validation are essential parts of the model development process for it to be accepted and used to support decision making. Martini and Henaff (2010) also stated that validation of a model focuses on whether it is adequate for the purpose it is to be used for. They further stated that validation includes evaluations of the model's theoretical soundness and mathematical integrity. Church (1983) argued that the concept of validation, judgment and standards is neither based on empirical nor theoretical evidence. Empirically, anyone conducting the process of validation is unlikely to properly account for the basis of their judgment or define the relevant standards they used. Theoretically, there would be no privileged access to presupposed knowledge and values by which a pure and unchallenged judgment might be made. Muya (1999) stated that although the concept of validation appears to be undermined by these weaknesses, it was an accepted form of critique. The arguments above recognize the philosophical weaknesses which underlie the process of validation. Church (1983) nevertheless stated that validation still remained the accepted form of expert seal of approval in cases where subjective judgment might have no other alternative.

7.4 Process of Validation

Seven questionnaires were prepared and hand-delivered to senior officers of organizations dealing in or having an interest in the integrity of construction organizations. The organizations were: the Anti-corruption Commission; Transparent International Zambia; Buildings Department in the Ministry of Transport, Works, Supply and Communications; the Road Development Agency; Lusaka City Council; National Road Fund Agency; and the National Council for Construction. These represented some of the main stakeholders of the construction industry in Zambia. The National Council for Construction is the regulator of all contractors in the country. The Anti-Corruption Commission and Transparency International Zambia are involved in ensuring a corrupt-free construction industry. Lusaka City Council, Road Development Agency, Buildings Department and the National Road Fund Agency are some of the major players and financiers of construction projects in Zambia.

7.5 Validation Results

The seven respondents to the validation of the framework were asked to state the functionality, user-friendliness and usefulness of the framework. They were further asked to state whether they had used or come across a framework for assessing integrity systems in construction organizations. The results of the validation process are presented below.

Experience with Integrity Measuring Frameworks

Six of the respondents indicated that they had never come across a framework for assessing integrity systems in construction organizations. Only one suggested they had. The respondent that indicated they had come across such a framework could not, however, provide further evidence where it could be accessed. These results suggested that the majority of the respondents had never seen any framework for assessing the presence integrity systems in construction organizations.

Usefulness and Usability of the Framework

The respondents were asked to state whether the framework could be applied in the construction industry and whether it was useful. All the respondents agreed. Kululanga (1999) stated that usability included the degree to which users are able to use the tool without assistance from academics or consultants. Usability also addresses the application to various groups in the same industry.
Potential to Improve Ethical Compliance in the Construction Industry

The seven respondents were also asked to state whether the framework could be used to improve ethical compliance in construction organizations. All of the seven respondents agreed.

8 ASSESSMENT OF INTEGRITY METRICS IN CONSTRUCTION ORGANIZATIONS IN ZAMBIA

After its validation, information on integrity metrics based on the framework was elicited from construction organizations. Ninety copies of the questionnaire were distributed to: 30 contractors; 30 client organizations; 10 engineering; 10 architectural, and 10 quantity surveying consulting firms. Forty-eight organizations completed the questionnaires, giving a response rate of 53 percent. This was deemed to be an acceptable response rate. Figure 1 presents the types of firms that responded to the questionnaire.

8.1 Results of the Assessment of Integrity Systems

An analysis was undertaken to compare and contrast the results of the information gathered from construction organizations based on the framework. This was done among sampled contractors, clients and consultants. The results of the assessment are depicted in Figure 2. The results were compared for all the ten elements. They suggested that integrity systems in construction organizations were moderately developed in: organizational strategies; top leadership commitment; existence of ethical culture; Code of Ethics; compliance programs; and disciplinary and reward procedures. However, established structures to support ethics; provision of training and education in ethics; and communication of ethical issues to stakeholders were determined to be weak in the surveyed organizations.

8.2 Correlation of Factors in the Framework

Field (2000) defined correlation as a measure of linear relationships between variables. A correlation coefficient, therefore, measures the strength and direction of a linear association between two variables. Correlation analysis was undertaken between and among all the ten elements in the framework, based on the 48 completed questionnaires in Section 5.2, using the Statistical Package for the Social Sciences (SPSS). Results of the correlation exercise are shown in Table 3. The purpose for undertaking the correlation exercise was to determine the relationships among the elements. At $p < 0.05$, correlation was determined to be significant among all the elements. The results suggested that there was positive relationship between and among all the variables. Although these results show a linear relationship, Higgins (2005) stated that they do not reveal whether one variable actually causes changes in another. When two variables are correlated, it means that when one of them changes, the other seems to change predictably and correspondingly in the same direction. Positive correlation, therefore, means that an improvement in one variable will more likely have a positive effect on the other variables (Crossman 2011). Kubinger et al. (2007), nevertheless, stated that $p < 0.05$ could unequivocally be interpreted that variables either had a negative or positive dependency.

A correlation exercise was conducted between the type of construction organizations and the ten variables in the framework. The construction organizations were: contractors; consulting firms; and client organizations. It was established that there was no correlation between type of construction organizations and the ten variables in the framework. This meant that the type of organization did not have any influence on the ten variables.

9 CASE STUDIES TO VERIFY AUTHENTICITY OF QUESTIONNAIRE RESPONSES

Three case studies were conducted to verify the authenticity of the results of integrity systems in the surveyed construction organizations. The objective was to triangulate the results, i.e., to verify whether respondents to the questionnaire for assessing the presence of integrity systems in construction organizations were truthful by physically getting baseline information on three of the companies surveyed earlier. The sample population of organizations that responded to the questionnaire on industry metrics was clustered into three groups, representing contractors, consulting firms and client organizations. One organization was randomly selected from each cluster. For the purpose of maintaining anonymity, the firms in the case studies were called A, B and C. Baseline information was obtained from the three construction organizations on availability of documentation on the ten variables of the framework.

9.1 Integrity Baseline Information Available at Organization A

Firm A was a client organization mandated to construct road infrastructure in Zambia. A physical verification of available documents indicated that 6 out of 10 of the answers by Firm A to the questionnaire on industry metrics were supported by documentation.

9.2 Integrity Baseline Information Available at Organization B

Firm B was a contractor involved in the construction of buildings, roads, bridges and other civil engineering
infrastructure. A physical verification of available documents at Firm B indicated that 7 out of 10 of the answers to the questionnaire on industry metrics were supported by documentation.

9.3 Integrity Baseline Information Available at Organization C

Firm C was providing quantity surveying services to the construction sector at the time of the case study. Only 4 out of 10 answers to the questions regarding the presence of integrity systems in Firm C were supported by available documents.

9.4 Significance of Results of the Case Study

The results of the case study suggested that when self-administered questionnaires were used, some firms were not honest in their answers. The sensitive nature of unethical conduct could have had a significant contribution to respondents not to self-incriminate. Mwiya et al. (2009) stated that the subject of ethics was considered sensitive and that information was normally concealed. Organizations were not willing to self-incriminate and subject themselves to scrutiny on processes and procedures that they had put in place. All surveyed companies wanted to be seen to be ethical, but not all of them practiced ethics. In his study, Doran (2004) stated that only 16% of the respondents would “never” hire or work with a construction organization they considered to be unethical. From his results, Doran (2004) concluded that ethical considerations were not one of the main criteria for procurement of consultants or contractors. Other results from Doran (2004) indicated that 32% of client organizations would “rarely” work with unethical contractors unless under pressure; 24% stated that they “might” work with unethical contractors if circumstances dictated; and 24% stated they “certainly” could work with an unethical construction organization.

![Figure 1. Organizations which respondents belonged to questionnaire](image1)

![Figure 2. Assessment of integrity systems in construction organizations in Zambia](image2)
Table 2. Framework for assessing the presence of integrity systems in construction organizations

<table>
<thead>
<tr>
<th>Score</th>
<th>Organizational strategy</th>
<th>Top leadership commitment</th>
<th>Existence of formal culture</th>
<th>Existence of ethical culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a. Ethics integrated in mission, values, objectives of the organization b. Ethics seen as core value of the organization c. Ethics is a goal for all employees, and is a key strategic focus d. Ethics is a key component of organizational culture e. Ethics is a key component of strategic planning f. Ethics is a key component of the company's strategic success g. Ethics is a key component of the company's reputation h. Ethics is a key component of the company's financial performance i. Ethics is a key component of the company's social responsibility j. Ethics is a key component of the company's environmental sustainability</td>
<td>a. Leadership of the organization is committed to ethics b. Leadership of the organization is committed to integrity c. Leadership of the organization is committed to ethical behavior d. Leadership of the organization is committed to ethical decision-making e. Leadership of the organization is committed to ethical management f. Leadership of the organization is committed to ethical leadership</td>
<td>a. Existence of formal ethics policies b. Existence of formal ethics procedures c. Existence of formal ethics training d. Existence of formal ethics evaluations e. Existence of formal ethics audits f. Existence of formal ethics reports g. Existence of formal ethics communications h. Existence of formal ethics publications i. Existence of formal ethics events j. Existence of formal ethics awards</td>
<td>a. Existence of ethical culture b. Existence of ethical values c. Existence of ethical goals d. Existence of ethical objectives e. Existence of ethical practices f. Existence of ethical principles g. Existence of ethical standards h. Existence of ethical guidelines i. Existence of ethical metrics j. Existence of ethical indicators</td>
</tr>
<tr>
<td>Compliance programs</td>
<td>Training and education programs</td>
<td>Communication of ethical issues</td>
<td>Reporting systems of unethical conduct</td>
<td>Discipline and reward policy</td>
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<td><strong>Communication of ethical issues</strong></td>
<td><strong>Reporting systems of unethical conduct</strong></td>
</tr>
<tr>
<td>5</td>
<td>a. Leaders hold the Code of Conduct and regularly inject values of transparency and accountability into decision-making through benchmarking the best practices</td>
<td>Training and education in ethics included as part of strategy and meeting organizational expectations</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication strategy is communicated and implemented to all employees</td>
</tr>
<tr>
<td>4</td>
<td>a. Training and education in ethics included as part of strategy and meeting organizational expectations</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication strategy is communicated and implemented to all employees</td>
</tr>
<tr>
<td>3</td>
<td>a. Training and education in ethics included as part of strategy and meeting organizational expectations</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication strategy is communicated and implemented to all employees</td>
</tr>
<tr>
<td>2</td>
<td>a. Training and education in ethics included as part of strategy and meeting organizational expectations</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication strategy is communicated and implemented to all employees</td>
</tr>
<tr>
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<td>Communication of ethics policy to all employees and held with integrity</td>
<td>Communication strategy is communicated and implemented to all employees</td>
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</table>
Table 3. Sampling frame for different strata of surveyed respondents

<table>
<thead>
<tr>
<th>N1</th>
<th>N2</th>
<th>N3</th>
<th>N4</th>
<th>N5</th>
<th>N6</th>
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<th>N9</th>
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</table>

Note: ** Correlation is significant at the \( p < 0.05 \) level; \( N \): Number of observations; N1 - Organizational strategy; N2: Top leadership commitment; N3: Formal structures; N4: Culture; N5: Code of ethics; N6: Compliance programs; N7: Training and Education; N8: Communications; N9: Reporting systems; N10: Disciplinary and reward procedures

10 CONCLUSION AND RECOMMENDATIONS

From the results presented in this paper, there was an acknowledged need for the strengthening of integrity systems in construction organizations in Zambia. The majority of the interviewed construction organizations in the country acknowledged the need to operate ethically. All companies surveyed portrayed an ethical image, even though none knew of any best practice integrity system. All respondents to the questionnaire survey in the study acknowledged that unethical practices were prevalent in the construction industry in Zambia. The framework to assess the presence of integrity systems that was developed and reported in this paper could, therefore, be a useful tool in evaluating ethical compliance in construction organizations. The framework could be used as a tool for self-assessment by construction organizations. Self-assessment can bring to management’s attention areas that require improvement.

There were limitations that need to be acknowledged regarding the results presented in this paper. The proposed framework was only tested in Zambia. To determine its usefulness, suitability and acceptability, the framework needs to be tested in other countries as well. Additionally, ethics is a sensitive subject. As established in the three case studies reported in this paper, firms tend not to answer questions regarding integrity and ethics honestly. It seems that to obtain reliable results, the case study approach, in which documentary evidence is elicited, provides a more appropriate method for investigating ethical issues compared to either interviews or questionnaires which were used in this study.

REFERENCES


