

Corruption in Construction Industry and Mitigation Actions in the UAE

الفساد في قطاع البناء وطرق تخفيفها في دولة الإمارات العربية المتحدة

by

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**Dissertation submitted in fulfilment
of the requirements for the degree of
MSc CONSTRUCTION LAW AND DISPUTE RESOLUTION**

at

The British University in Dubai

October 2020

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ABSTRACT

Corruption and malpractices in Construction Industry become most critical issue in the Construction sector especially in the UAE. Preventive measures are taken to eradicate or minimize the damage and laws are introduced to safeguard the industry. This dissertation covers the subject and is well supported by suggestions by various authors and various literature reviews confirming such a situation occurs in the industry across the world.

Hence, the construction industry dominated by the multicultural society, especially the expatriate community, which they hold the various managerial positions in the UAE construction sector, they intend to make quick money through malpractices and get away with the gaps in Contract Clauses and the legal system.

After conducting the survey, collecting data and one to one interviews with many industry professionals at many levels, it was well supported as primary and secondary data. After evaluating all data it suggested that many projects from inception to the close out phase, it significantly contribute to corruption and malpractices. [Most of the projects, time is critical and no time to go into depth and review the procurement cycle, scope or the construction methodically.

It further suggested, eradication of malpractices totally is impossible but preventive measures can be taken to minimize and control the situation in UAE as well as globally. This will help to select the best procurement strategy maintaining the Quality, Time and Cost within the high value and highly complex projects.

This is the obligation of all industrial professionals to support the country's legal framework to introduce new laws and preventive measures, follow the code of ethics and moral values to support the industry, especially the construction sector.

أصبح الفساد والممارسات السيئة في صناعة البناء أكثر القضايا أهمية في قطاع البناء وخاصة في دولة الإمارات العربية المتحدة. يتم اتخاذ تدابير وقائية لاستئصال أو تقليل الضرر ويتم إدخال قوانين لحماية الصناعة. تغطي هذه الرسالة الموضوع ومدعومة جيداً باقتراح من قبل العديد من المؤلفين ومراجعات الأدبيات المختلفة التي تؤكد حدوث مثل هذا الموقف في الصناعة في جميع أنحاء العالم.

ومن ثم ، فإن صناعة البناء التي يهيمن عليها المجتمع متعدد الثقافات وخاصة مجتمع المغتربين ، الذين يشغلون مناصب إدارية مختلفة في قطاع البناء في دولة الإمارات العربية المتحدة ، يعتزمون جني الأموال بسرعة من خلال الممارسات الخاطئة والتخلص من الثغرات الموجودة في بنود العقد والنظام القانوني.

بعد إجراء الاستطلاع ، وجمع البيانات والمقابلات الشخصية مع العديد من المتخصصين في الصناعة على عدة مستويات ، تم دعمها جيداً كبيانات أولية وثانوية. بعد تقييم جميع البيانات ، اقترحت أن العديد من المشاريع منذ البداية وحتى مرحلة الإغلاق ، تساهم بشكل كبير في الفساد والممارسات السيئة. | في معظم المشاريع ، يعد الوقت أمراً بالغ الأهمية ولا يوجد وقت للعمق ومراجعة دورة الشراء أو النطاق أو البناء بشكل منهجي.

واقترح كذلك أن القضاء على الممارسات السيئة تماماً أمر مستحيل ولكن يمكن اتخاذ تدابير وقائية لتقليل السيطرة على الوضع في الإمارات العربية المتحدة وكذلك على مستوى العالم. سيساعد ذلك في اختيار أفضل استراتيجية شراء تحافظ على الجودة والوقت والتكلفة ضمن المشاريع عالية القيمة والمعقدة للغاية.

هذا هو واجب جميع المهنيين الصناعيين الذين يدعمون الإطار القانوني للدولة لإدخال قوانين جديدة وتدابير وقائية واتباع مدونة الأخلاق والقيم الأخلاقية لدعم الصناعة وخاصة قطاع البناء.

Table of Contents

| | | |
|------|--|----|
| I. | ABSTRACT..... | |
| II. | CHAPTER 1: INTRODUCTION | 1 |
| | 1.2 Background Information | 1 |
| | 1.3 Problem Statement | 3 |
| | 1.4 Research Objectives | 4 |
| III. | CHAPTER 2: NATURE OF CORRUPTION & MALPRACTICES IN THE CONSTRUCTION INDUSTRY | 5 |
| | 2.2 The Concept of Corruption | 5 |
| | 2.3 Causes of Corruption | 5 |
| | 2.3.1 History & Culture | 6 |
| | 2.3.2 Socio-economic Factors..... | 7 |
| | 2.3.3 Political and Governmental Factors..... | 7 |
| | 2.3.4 Complex nature of Construction Industry..... | 8 |
| | 2.4 Types of Corruption in the Construction Industry | 9 |
| | 2.4.1 Administrative Approvals..... | 10 |
| | 2.4.1 Corruption in Land & Property Sector..... | 10 |
| | 2.4.3 Project Selection Stage | 11 |
| | 2.4.4 Planning Stage | 11 |
| | 2.4.5 Procurement Stage..... | 12 |
| | 2.4.6 Conceptual Brief and Design Stage | 13 |
| | 2.4.7 Awarding of Contract and Project Implementation Stage | 13 |
| | 2.4.8 Construction Stage..... | 14 |
| | 2.4.9 Operation, Maintenance and Management Stages | 15 |
| IV. | CHAPTER 3: METHODOLOGIES TO PREVENT CORRUPTION IN CONSTRUCTION INDUSTRY | 16 |
| | 3.2 Prevention of Corruption | 16 |
| | 3.3 Preventing Corruption in Construction Projects: Supervision and process of a Project Life Cycle | 18 |
| | 3.3.1 Project Initiation Stage | 18 |
| | 3.3.2 Selection of Procurement Route and Tendering Stage | 19 |
| | 3.3.3 Construction Stage..... | 20 |
| | 3.3.4 Project Post-Construction Stage..... | 20 |

| | |
|--|----|
| 3.4 An effective way to Fight Corruption | 21 |
| 3.5 UAE Institutions and Government’s Role in Fighting Corruption | 22 |
| V. CHAPTER 4: RESEARCH METHODOLOGY AND DATA COLLECTION..... | 23 |
| 4.1 Research Design..... | 23 |
| 4.2 Population, Sample, and Data Collection | 23 |
| 4.3 Questionnaire and Survey Approach | 23 |
| VI. CHAPTER 5: DATA ANALYSIS AND DISCUSSION | 24 |
| 5.1 Professional Profile | 24 |
| 5.2 Respondents’ Age Groups, Capability, and Educational level | 24 |
| 5.3 Participants’ Job Title and Organizational Roles..... | 26 |
| 5.4 Participant’s Involvement in Construction Life Cycle..... | 27 |
| 5.5 Knowledge and awareness of Malpractice in the Industry | 27 |
| 5.6 Reasons behind Corruption in the UAE..... | 28 |
| 5.7 The Percentage of Corruption at Every Phase of Construction | 29 |
| 5.8 Corruption Effect | 29 |
| 5.9 Mitigation process at Every Stage of Construction to minimize the Corruption | 30 |
| 5.9.1 Land Acquisition and Government Approval Phase | 30 |
| 5.9.2 The Design Stage | 31 |
| 5.9.3 Procurement Phase | 32 |
| 5.9.4: Construction Stage..... | 32 |
| 5.9.5 Warrantee Stage..... | 33 |
| 5.10 The Importance of Fighting Against Corruption?..... | 34 |
| VII. CHAPTER 6: CONCLUSIONS & RECOMMENDATION..... | 35 |
| 6.1 Conclusion | 35 |
| 6.2 Recommendations..... | 35 |
| VIII. Works Cited | 37 |
| IX. APPENDIXES | 42 |

CHAPTER 1: INTRODUCTION

1.2 Background Information

Over the past few decades, the global construction industry has experienced tremendous growth. With the improvement in technology and advancements in the construction technical know-how, this industry has become the leading contributor to the world's gross domestic product (GDP). The trend is expected to gain an exponential rate in the coming years. According to the report by the Global Construction, the output in this industry is expected to increase by 70% to USD15 trillion by 2025 (Betts and Farrell 9). This number will then increase by 85% to USD 15.5 trillion in 2030 (Mullen and Elliott). From a global point of view, the major contributors to this section of the economy are China, India, and the United States. However, all other countries all over the world are in an equal trend. In the Middle Eastern region, for example, the Gulf Cooperation Council (GCC) and the associated countries are playing major roles in this path of development.

The GCC construction industry is mainly dominated by the United Arab Emirates. The entire region has experienced a remarkable infrastructural development since 2015. In 2017 alone, the value of all construction awarded in the entire GCC amounted to USD108 billion ("GCC Construction"). As much as most of the jurisdictions in the region have recorded some decline in performance over the last two years, Dubai has remained in a steady growth trend. With limited government restrictions in the industry, more private entities in Dubai have been motivated to enter the market. Subsequently, the total value of all the project which are still at the planning stages is over USD2 trillion ("GCC Construction"). As a result, the construction industry in the country has become the most dominant in the entire economic structure of the UAE. Currently, among all the country's projects pipeline, construction constitutes 59%, which is followed by transport at 18%, of the state's total budget ("GCC Construction"). This data is an indication that the country is still in high

demand for construction products – a pointer to the continuous boom in the industry. As much as such growths should call for a celebration, the stakeholders must be conscious of the growing rates of corruption and bribery in this industry.

The complex nature of the construction industry makes it one of the most vulnerable sectors to corruption. According to a report by Transparency International, public works – which is majorly a construction endeavor – is the most likely to be bribed among all other 19 sectors (Robertson et al. 1). A combination of high-risk industry, corruptible jurisdiction, and the availability of intermediaries makes construction one sector that every state in the quest of curtailing corruption must focus on. For example, the Sochi 2014 Winter Olympics of Russia had an initial budget of USD12 billion; which was eventually inflated to USD51 billion to cater for kickbacks and embezzlements (EU Anti-Corruption Report). Due to the high budgetary nature of such products, corruption in the construction industry results in huge monetary losses. Such cases of corruption are also evident in the Arab world. For example, a report by Arab News on October 2013 revealed that “judicial bodies in Arab countries had issued rulings against over 60,000 people on various corruption charges in the last five years” (Robertson et al. 1). Hence, the UAE needs to formulate corrective policies to curb the growing rates of corruption in the industry.

As much as corruption still remains a moderate risk in the UAE, bribery in the construction industry has become a major concern due to massive financial loss the vice is associated with. With time, the people in the region are getting to understand that bribery is not a victimless crime, especially when it hits the industry that contributes to the largest percentage of the country’s GDP. With an annual budget of over USD108 billion, corruption in the construction sectors may result in a massive loss of private and public funds. Upon this realization, the UAE’s judicial and legislative systems need to formulate various laws and policies aimed at curtailing corruption in the country. Despite the old pieces of legislation

such as the UAE's Federal Penal Code, articles 234 to 239, as well as other bribery legislative changes, the country is yet to create specialized interventions to address corruption in the construction industry.

1.3 Problem Statement

The United Arab Emirates is experiencing exponential growth in the construction industry. As a result, this sector constitutes the largest section of the country's GDP. Conversely, the menace of corruption and bribery has infiltrated the country. With the complexity of construction endeavors, this sector becomes one of the most vulnerable industries to corruption. Various phases of a construction project offer the opportunity for bribery and other forms of corruption. For example, in the construction of, say, a building, there are possibilities of leakages in the tendering process, the procurement phase, acquisition of building permits, and during the actual construction. If all or some of these phases experience financial leakages – coupled with the fact that construction is a multi-billion endeavor – billions of public and private funds will be lost. As a result, it will be imperative to create policies that are specific to this sector of the economy.

Over the last three decades, the UAE has appreciated the rising nature of bribery and corruption. As a result, the country has formulated numerous pieces of anti-corruption legislation to curb this vice. So far the issue of corruption in the country is mainly addressed under the UAE Federal Law no.3 1987, which is also referred to as the *Penal Code*.

However, the country does not have a stand-alone anti-corruption act such as the Bribery Act 2010, of the United Kingdom. This lack of specific legislation has limited the ways in which the county handles corruption cases. For his reason, the country is experiencing growing cost overruns in construction projects (Ramabhadran 2). For example, in February 2016, when Sweett Group Plc failed to prevent an act of bribery in UAE, it is the UK that sentenced and fined the company using its developed legislative framework. Hence the problem that this

research is going to address is the issue of corruption in the UAE's construction industry. It will explore the legislative gaps that the country has and what should be done to prevent this problem. Subsequently, the researcher seeks to unearth other measures – in addition to legislations, which the country needs to develop in order to save the growing construction industry from the plague of corruption.

1.4 Research Objectives

1. To establish the global, regional and national trends in the construction industry with the aim of appreciating the contribution of this sector to the UAE's economy.
2. To assess the concept of corruption and establish its impact on the country's construction industry.
3. To come up with recommendations that UAE can adopt to address the corruption vice in the construction industry.

CHAPTER 2: NATURE OF CORRUPTION & MALPRACTICES IN THE CONSTRUCTION INDUSTRY

2.2 The Concept of Corruption

Corruption, in general, refers to the criminal or dishonest activity undertaken by an individual or a group of people in a bid to illicit benefit at the expense of others or the public. In order for one to analyze this concept properly, it is imperative that they appreciate the fact that English, as well as other languages, have provided vastly different meanings of corruption over the history of humanity (Friedrich 15). However, the core concept of this vice is that it is deviant behavior that only prevails in a given political or social context. As Friedrich puts it “corruption is a deviant behavior associated with a particular motivation, namely that of private gain at public expense” (Friedrich 15). This concept has a classical foundation but has been vastly evident in the contemporary political environment. Corruption mirrors the political thought of individuals such as Machiavelli, Montesquieu, and Rousseau (Johnston 16). For example, Machiavelli believes that, through corruption, the *virtu* of the general public is undermined, resulting in the eventual destruction (Machiavelli 29). On the other hand, Montesquieu argues that “plays the lead antagonist to a flourishing polity,” and can exist in any form of government if effective precautionary measures are not put in place (Teachout 347). Therefore, corruption is a classical vice which is still detrimental and destructive in the contemporary political atmosphere.

2.3 Causes of Corruption

Corruption is one of the major menaces that governments all over the world face. As much as every country has some elements of corruption, some countries are far more corrupt than others. For example, Scandinavian countries, as well as other countries such as Singapore have some of the lowest levels of corruption. On the other hand, corruption in developing countries, such as African nations, the levels are so high to the extent that this

vice has crippled most of their development endeavors. In UAE, corruption is at a moderate level which still calls for mitigation measures to prevent its spread in the country's social fabric. In order to address this issue it is important to understand the causes of corruption, especially in the construction sector. According to Goel and Nelson corruption is caused by factors that can be social, cultural, economic, political or related to the governance of a country (443). The history of a country can also contribute to its propensity to be corrupt. Therefore, in understanding the causes of consumption, it imperative to explore it in a global context, within all sectors of the economy, while ensuring the case of UAE and the construction industry is placed into consideration.

2.3.1 History & Culture

Corruption started as early as the beginning of human social development. This concept has been criticized by various philosophers and critical thinkers. As early as the fourth century BC, Plato, in his book *The Republic*, criticized corruption and posited that it is the nature of political institutions that philosophers should endeavor to prevent (Bloom and Kirsch 166). On the other hand, history shapes the cultural norms of a country or a generation, hence dictating their tendency to become corrupt. Goel and Nelson argued that "bribe-givers and bribe-takers develop "efficient" mechanisms over time for engaging in corrupt practices" (451). These tendencies get embedded in the culture of these societies. As a result, some countries create a social environment where corruption is accepted while other countries have a culture where corruption is frowned upon. The number of years in which the country has been independently determined the effect of history and culture in creating a corrupt landscape in the state (Goel and Nelson 451). In UAE, for example, there is a mild culture of corruption in the country resulting in loss of public funds in the measure of millions of dollars. The culture of the country, however, makes bribes and embezzlements become uncommon phenomena. Nonetheless, there are still rare cases of corruption in the

corruption industry, as well as other industries, that have prompted the country to formulate an anti-corruption framework.

2.3.2 Socio-economic Factors

Various socioeconomic variables have either direct or indirect correlation with the prevalence of corruption in a country. For example, a socioeconomic parameter such as democratic accountability has a positive correlation with corruption – countries with a social system which calls for economic accountability have lower levels of corruption (Brown and Shackman 325). Other major socioeconomic factors that affect the rate of corruption in a country include “the wealth of a country, the distribution of national income and how the public revenues are invested in the overall structure of the State, which fundamentally shapes the quality of life of the population” (Buscaglia 12). For example, a country that has high national income has the ability and resources to effectively support the criminal justice system. This is to say, higher levels of national income or GDP is associated with low levels of corruption in the country. With a GDP of 425.00 USD, Billion and GDP per capita of 40,698.85 USD UAE still remains an economically stable country with relatively lower prevalence of corruption compared to poor countries such as Uganda (Router). However, despite the economic strength of the country, there are still some elements of corruption. Most of these are brought by other factors that may not be associated with socioeconomic characteristics of the country.

2.3.3 Political and Governmental Factors

The structure of the government, the political process, and the legislative and legal frameworks of a country determine its vulnerability to corruption. Ali and Isse maintained that political freedom has a negative correlation with the level of corruption in a country, but they also pointed out that the correlation coefficient of these variables is not statistically significant (453). Additionally, a government structure that provides for federalism or

decentralization has a lower susceptibility to corruption. Brown and Shackman maintained that “although the current degree of democracy is not a significant variable in predicting corruption, long exposure to democracy predicts lower corruption” (321). Low or lack of democracy results in results in illegitimate political power which creates avenues for biased appointments resulting in corruption in these sectors. Inefficiencies in the governance also result in bureaucracy which is an indication of less meritocracy hence higher levels of corruption (Buscaglia 14). In the UAE, the government does not have efficient systems for fighting corruption. The country still relies on the outdated UAE Federal Law no.3 1987 to combat corruption. This is why ... pointed out that “a strong element of corruption underlies the smooth efficiency of the UAE business world, lying in wait for the unprepared” (Howell 415). The country also lacks democratic accountability which gives the leakage for corruption and lowers the corrective effect of civic self-enforcement and the rule of law.

2.3.4 Complex nature of Construction Industry

One major cause of corruption in the construction industry is its complex nature. “The construction industry is fragmented, involves a large number of stakeholders in a complex contractual structure, and a variety of psychological human behaviors that expose to corrupt activities” (Nordin 64). In a corrupt system, it is possible to find instances of corruption at every face of construction. Being that every step involves massive funds, the complex nature of construction makes it possible for huge losses in the measures of millions of dollars. Subsequently, construction projects involve several professionals and stakeholders. If the construction is for a public purpose, the main players become the central government and the respective ministries. Additionally, there are planners, appraisers, architects, geologists, surveyors, engineers, and several other professionals through which the process of construction passes. At every level, there are decisions regarding appointment, quality, and finances that make it possible for corruption to occur. Its complexity also makes it difficult to

establish whether corruption has taken place or not. One parameter that can be used to determine the existence of corruption in a project is by assessing the quality of the final product. However, “construction involves large, complex, non-standard activities in which quality can be very hard to assess” (Kenny 1). Hence, the complexity of construction endeavors exposes these projects to corruption and makes it difficult to know whether this vice has occurred or not.

2.4 Types of Corruption in the Construction Industry

As mentioned before, construction projects are so complex and involve several steps that make it more vulnerable to corruption. Most construction projects start with administrative approval, especially in public projects. At this level, the leader of the states or the ministers responsible comes up with the idea of developing a project in order to address a certain infrastructural gap. The next step is the land acquisition or allocation for the project. After obtaining the land, the next stage is to select the most viable project among the existing alternatives. For example, in constructing a road, the policymakers must select that appropriate road standard that they think will be the most appropriate. This step will then be followed by procurement to find the most qualified contractor. The contractors will then design and draw conceptual briefs for the project. After the contract has been awarded, the project implementation and the construction process starts. At the end of construction, the project is handed over to the respective agency which will ensure there will be effective maintenance and management of the structure. In every step of the way, players have the ability to solicit bribes, over-value the costs, provide sub-standard quality, or any other form of corruption. Hence, in order to curb corruption in the construction industry, it is imperative to address every level of construction.

2.4.1 Administrative Approvals

Every project which involves infrastructural development requires approval by the administrative authorities. Within the various sectors in the government or an organization, it is the responsibility of the leaders to identify an infrastructural gap that needs to be filled. This process should always happen only if the administration realizes that there is lower efficiency in public or private operations that can be boosted by constructing more structures. This is the very genesis of corruption in the construction industry. For example, the political leaders can propose a project that is not needed and will just result in redundancy, with the aim of opening an avenue for embezzlement of funds. In corrupt countries, projects are proposed, not because the citizens need them but because it opens an avenue for stealing the public funds. People in power and authority make decisions at these levels which may either accelerate corruption or close any space for embezzlements. For this reason, the best way to prevent corruption in this phase is to eliminate unnecessary power and authority in the project approval level (Zou 20). The government should “establish a complete and detailed supervising procedure to allow the supervising officials to work proactively, positively, continually and independently, and to avoid administrative interference and at the same time, protect the innocent public” (Zou 20). This move will increase the credibility and authenticity of project selection and approval in the UAE construction industry.

2.4.1 Corruption in Land & Property Sector

Another process in a construction project is the acquisition or allocation of land for the project. For public projects, land can either be acquired through an allocation from land banks or through compulsory acquisition or resettlement of the public. In cases where forced resettlement is necessary, a resettlement action plan and inventorization of the affected property and property owners should take place (Al Atahar 259). In corrupt jurisdiction, the valuation for compensation is compromised resulting in higher values so that the balance

goes to corrupt politicians. In the case of the UAE, the compensation falls within the powers of the municipalities. The legal provision for this process is covered in Article 3 of Law No. 17 (Roberts). However, this legislation does not provide the exact procedure and methodology for land acquisition and compensation (Roberts). This gap has resulted in various municipalities undertaking the process in their own accord – giving space for corruption.

2.4.3 Project Selection Stage

The project selection stage is a very sensitive part of a project. It involves selecting the right contractors, and engineers to oversee the project. It is at this stage that critical decisions such as tender and supplier decisions are made. The common corruption red flags during this stage include strong inertia in the supply team composition and conflict of interests. In UAE, there have been cases of bribery where outsiders such as suppliers undertake to bribe the tender committee to choose them as one of the suppliers (Joras et al 245). In very lucrative public and private projects in UAE, suppliers often jostle to be picked as the major supplier. Under this competition, some suppliers resort to using bribes so as to be picked. Similarly, such projects often attract a beeline of engineers and other professionals both domestically and from abroad. To avoid the lengthy process of vetting, some engineers may resort to bribing the picking committee to choose them either as the lead engineer or part of the construction team. Conversely, on some occasions it is the committee charged with the selection process who may resort to soliciting bribes from contractors, engineers, and suppliers in order to pick them. The danger with this is that the contractor, engineer or supplier chosen may be of poor standards compared to others in the pool.

2.4.4 Planning Stage

The planning stage in the construction industry is an important part of a project. It entails estimating the number of resources required, calculating the time for individual

projects, the overall budget of the project, and developing the work schedule. Corruption in the planning stage can occur in many ways. To begin, corrupt individuals in the UAE have taken advantage of the process of calculating the resources required to inflate construction costs. This means that the project ends up costing more money than it should in reality. After paying the correct figures, these individuals are left with more money (Kerr, Ryburn, McLaren, & Denton 13). This inflation of construction costs happens during the planning stage. Another instance of corruption during the planning stage that is common in the construction industry in UAE is extending the time that an individual project takes to complete. Extending the time that individual projects take will result in spending more time on a project than it really should. This way, the project ends up using more money than was budgeted for. In this case, the few individuals involved in the scheme end up getting more money than was initially budgeted for. This kind of corruption is quite common in the construction sector in the UAE.

2.4.5 Procurement Stage

UAE, like most developing nations, a lot of fraud and corruption in the construction industry occur during the procurement stage. The forms of corruption can occur in ways such as fraud, extortion, manipulation of documents, bribery, and computer fraud. A popular form of corruption in the procurement stage is inflating the costs of goods and equipment to be used in a project. What this means is that people who are involved here deliberately over-quote the prices of items to be purchased. They then go ahead and buy these items at their original prices. After the process is over, these individuals end up with money made from the difference between the original prices of the item and the over-quoted price (Mantzaris, 69). Another common type of corruption in the construction industry in the UAE during the procurement stage is bribery. This is a case where individuals in the procurement department get bribed by outside individuals such as suppliers in order to supply items. The problem with

this kind of corruption is that it compromises the quality of a project. This is because in many cases, the quality of equipment, items, and tools supplied by these suppliers is substandard.

2.4.6 Conceptual Brief and Design Stage

This is the stage where a client is briefed on the full progress and development of the project. Here, the architects are made to understand what the requirements of the client are. The client is also made to know of any problems or situations which may derail the project. This problem forms the basis of the design. The common form of corruption under a conceptual brief and design stage in the construction industry in UAE comprises providing false information (Chudley, and Greeno 70). The information provided to the client may be falsified with the intention of getting more money from him/her. For example, during the conceptual brief stage, the engineers may give the client false information about the feasibility of the project based on the allocated budget. The client who may be unaware of the truth may be duped into pumping more money into the project which ends up in the pockets of a few individuals. Such cases, though rare, have been reported in the construction industry in the UAE. Another instance of corruption in the design stage is misinformation regarding the time of the project. The client may be misguided intentionally about the time frame of the project and other matters concerning the overall design of the project.

2.4.7 Awarding of Contract and Project Implementation Stage

Just like in the procurement stage, this is another part that is rife with corruption within the construction industry in the UAE. Common causes of corruption under this category include; bribery, attempts by private firms to influence the appraisal of the project, attempts to influence the budget and attempts to influence the overall design of the project. Another common form of bribery in the construction industry in the UAE includes bribing inspectors, contractors, and engineers. Such cases are quite prevalent in the UAE and happen every now and then. Even though they may be counted as small and harmless, the overall

damage that these acts cause to a project is quite immense (Graycar, Adam, and Tim Prenzle 67). Among the forms of corruption mentioned above, bribery of government inspectors is one of the most common ones. For example, there have been numerous cases of bribing government inspectors by contractors building the world cup stadiums to be used for the FIFA 2020 world cup. Another common form of corruption in the construction industry in UAE is private firms with interests in a project asserting some form of influence. For example, contractors often try to get a big financial budget for public projects. This way, they take the surplus money for personal gain.

2.4.8 Construction Stage

The construction stage is another part of construction wrought with corruption in the UAE. The construction stage is characterized by the actual building or construction of a project. Some major types of corruption that occur during this time include embezzlement, fraud, and bribery. In terms of embezzlement, individuals responsible for releasing the money to such projects occasionally siphon some funds for personal gain. This denies the project of adequate funding which may cause delays or use of sub-standard tools and equipment (Al-Hajj and Hamani 221). In terms of bribery, people and firms with interests often bribe contractors and engineers to do certain things in their favor. For example, contractors in the UAE often bribe government inspectors in order to get a favorable report or just to ‘look the other side’. This often happens when contractors have not been able to meet the quality standards required of them. In terms of fraud, there are cases in the UAE where contractors ‘disappeared’ with equipment and tools belonging to the government. After a project is complete, some tools and equipment belonging to the public often don’t find their way back to the government. Instead, they end up being the personal property of private individuals. This costs the public a lot of money as the government will again have to purchase some of these pieces of equipment for the next public project.

2.4.9 Operation, Maintenance and Management Stages

After the completion of a project, such projects must then be maintained to ensure that they are well-maintained and operational. Even in this stage, some form of corruption usually occurs within the construction industry. A major form of corruption that occurs in this stage is inflating the costs of maintenance. In many cases, some contractors over-quote the amount of money required for the maintenance of structures, tools, and equipment (Yap et 35). By over-quoting maintenance costs, the officer in charge remains with the surplus money which he uses for personal gain. Another form of corruption in the maintenance stage is the stealing of equipment and tools. In some cases, tools and equipment have been found to be missing. Often, these pieces of equipment end up being sold by their care-givers. Another form of corruption that is also quite common during this stage is over-quoting of operational costs. Most constructions, even after their completion will require an operational budget to keep the project functional. Facilities managers in the UAE can sometimes inflate the costs of running such facilities to surpass their real costs. Their intention is to use the surplus money for their own benefit. Such acts are forms of corruption because they cost tax-payers more money than what they should really cost. They make the overall cost of the project more costly.

CHAPTER 3: METHODOLOGIES TO PREVENT CORRUPTION IN CONSTRUCTION INDUSTRY

3.2 Prevention of Corruption

Currently, the UAE does not have a single law or legislation that specifically deals with corruption and bribery cases. However, there are specific provisions in the various federal laws and penal codes that – either directly or indirectly point to corruption litigations (Dackiw). Some of these legislations that touch on corruption include “Federal Law n. 3 of 1987 (UAE Penal Code)” and “Federal Decree Law no. 11 of 2008 (Federal Human Resource Law)” (Global Legal Insights). The country also has Jurisdictional penal codes and laws that operate within individual states within the country. For example, Dubai has the Financial Fraud Law, Dubai Human resource Law, and Dubai Penal Code (Global Legal Insights). These legislative frameworks have superficial mentioning of corruption and bribery. However, the laws do not give specifications to the vices and the respective interventions. With the lack of a proper legislative framework, curbing corruption in Dubai still remains an elusive endeavor.

The existing laws that deal with corruption give both the general idea about the crime and provide corresponding penalties for the violation of the same. For example, Article 234 of the country’s penal Code provides that any person in a public office who accepts or gives out bribe as a privileged or gift will be punished by temporary imprisonment. This legislation neither provides the specific jail term nor gives limitations and exceptions in regard to the application of this law. Such lack of specificity provides a loophole for league violation hence accelerating corruption – especially in major sectors such as the construction industry. However, Dubai Financial Fraud Law provides specific details on corruption and the subsequent litigations. For example, the law gives specific breakdown of punishment and jail term for every amount of money involved in corruption, embezzlement, or bribery (Global

Legal Insights). For instance, anybody responsible for corrupt deals that results in the loss of public funds amounting to between 5,000,000 AED and 10,000,000 AED will get an imprisonment period of not less than 15 years (Global Legal Insights). Despite the thoroughness of this legislation, its jurisdictional authority is limited to just one emirate – Abu Dhabi. It is for this reason that the UAE needs to strengthen its legislative system to give more priority to financial crimes.

In order to strengthen the financial system and to ensure proper implementation of the available legislative provisions addressing corruption, EAE has formulated an anti-corruption unit. In “May 2015, His Highness Sheikh Mohammed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, gave a directive establishing a new anti-corruption unit to focus on combatting corruption” (Hudson and Abdelrehiem par. 2). This unit operates within the Abu Dhabi Accountability Authority and is designated for investigating financial crimes and identifying the gaps within the existing legislation. Another institution that deals with corruption in the country is The Dubai Economic Security Center which also helps in fighting embezzlements, bribery, counterfeit, fraud, financial terrorism, and other forms of economic crimes (Global Legal Insights). One of the interventions that these anti-corruption units have recommended is the formulation of “specific and up-to-date anti-corruption legislation” which will not only revamp the process of fighting corruption in the country but will also make the work more efficient and effective (Hudson and Abdelrehiem par. 1). Therefore, in order to prevent and deter corruption in the UAE’s construction industry, the country needs to comply with the recommendation of the country’s anti-corruption unit, by formulating a new Federal statute of penal code that will focus specifically on fighting the vice.

3.3 Preventing Corruption in Construction Projects: Supervision and process of a Project Life Cycle

As mentioned before, due to the complexity, the dimension of projects, and the massive financial investment involved in construction projects, this industry is more prone to corruption than most others (Nordin et al. 64). Consequently, corruption in the construction industry results in loss of huge amounts of money and low-quality infrastructure which have major effect on both the economic status of the country or organization, as well as the social well-being of the people (Krishnan 112). In order to address this problem, one needs to evaluate every level of a construction project to ensure that integrity systems are airtight hence will prevent any form of financial crime. In every stage of construction, there needs to be transparency initiative where all the stakeholders have the ability to monitor the process and detect any case of malpractice. Subsequently, there should be an integrity pact among the players at every construction level. This effort will create mutual commitments among the parties, making them refrain from the act of bribery and any form of corruption (Stansbury 3). A construction project also needs to have an anti-corruption system where this endeavor is made an integral part of the project management. This approach will ensure that the project management team applies uniform integrity measures at every level of construction (Stansbury 3). In all the four main stages of construction – project initiation stage, procurement stage, construction stage, and post-construction phase – anti-corruption measures must be put in place to prevent this vice in the industry.

3.3.1 Project Initiation Stage

This stage involves project conception and design to come up with an infrastructure with the maximum possible utility. The project conception is usually done by the client or the government body involved. It is the role of these individuals or organizations to realize the gap that the infrastructure is going to fill and the utility that it will serve. This is the point

where public projects can be initiated without consideration to its requirement but rather to create an avenue for exploitation of public resources. In order to prevent such cases and above, the institution or the government must undertake an initial screening to ensure the viability and the need that the infrastructure is going to fill (Wells 5). This step should be followed by an extensive and transparent feasibility study. The study should be objective and scientific to ensure that the intended project will be of the highest and best use of the company's or the public funds. The result of the feasibility study should give the guidelines as to whether the project should be adopted or not, and the specific adjustments which should be made to optimize its use (Zou 16). By making decision based on objective and empirical analysis of the existing data and information, the project initiation will be prevented from the influence of corruption. This is because decisions will be made based on what is the most viable project, and not which project will bring maximum money in individuals' pockets.

3.3.2 Selection of Procurement Route and Tendering Stage

At this stage of project development, the project team and the procurement officers start the ordering and obtaining of materials, equipment, and labor force. It is at this stage where the main contractor and the various professionals who will be involved in the project are identified. Hence, the procurement stage is where the construction projects are most vulnerable to corruption (Osei-Tutu and Owusu-Manu 237). It is the point where large contracts and sales are at stake and everybody is fighting for some form of consideration. Therefore, every effort to prevent corruption in a construction project must give the most priority to this phase. As Osei-Tutu and Owusu-Manu concluded, "in the pursuit to control corruption practices, this would require the constitution of a sound procurement system and pro-social equity policies that would foster good governance, corporate social responsibility, transparency, accountability, judicious public expenditure, and national progress" (p. 236). Another way of curbing corruption at this level involves the application of the politics of

visibility and encouraging luminous arrangement. Under such intervention, the actors are given the autonomy to make their own decision while they are also guided by the anti-corruption policies (Neu, Everett, and Rahaman 49). This approach may not necessarily offer direct prevention to corruption but may encourage some actions and reactions which will instill discipline and efficiency among the project players. This stage also requires intense supervision from external bodies and strict compliance with the procurement laws.

3.3.3 Construction Stage

This phase of construction involves the actual work where each player or professional provide their schedules for the purpose of project management. Several professionals and interested individuals participate at this level. It is at this point where the quality standards are ascertained and deadlines are established. In order to make sure that everybody does their work effectively and in compliance with the set quality standards and deadlines, the project management team needs to create various anti-corruption measures (Sohail and Cavill 731). One initiative that they can implement is revamping the transparency levels during the construction process (Stansbury 2). This should be done by making every process and information available for all stakeholders to encourage public scrutiny. By so doing, more eyes will be available to spot any form of corruption or deviation from the set standards and deadlines. Another intervention would be to ensure that every professional or player in the project signs an integrity pact. The pact should provide for disclosure of all the information, sanction in case of any violation, conflict resolution methods, and monitoring and evaluation by external parties (Stansbury 4). These initiatives, together with others may help in eliminating corruption and misdemeanors at this stage of a construction project.

3.3.4 Project Post-Construction Stage

After the completion of the construction process, the project is handed over from the constructor to the client – who can be the general public in case this was a public project.

This stage also requires a high level of transparency to ensure that the hand-over is done in compliance to set regulations. During this time, the infrastructure can be tested to establish whether the contractor achieved the quality and specification requirements. Subsequently, this is the level where the post-construction deals are set. Such deals may involve repair and maintenance as well as monitoring and evaluation. One of the ways of detecting and responding to corruption at this stage is by undertaking an audit variation to the project. “A detailed and careful review of the completed project is essential because the corruption would be purposely hidden” (Zou 27). This audit involves a comparison between the project budget and the eventual final cost. Auditors may also identify the variations and establish whether they were unavoidable or are results of corruption, negligence or misdemeanor (Zou 27). Subsequently, in case there are variations in budget and the project cost, the auditor needs to establish the reason and whether the inconsistency was avoidable or not.

3.4 An effective way to Fight Corruption

The above analysis has revealed that corruption can occur at every level phase in a construction project. The main perpetrators of corruption in this sector are the project participants, especially government officials, procurement officers, contractors, clients, and consultants (Zou 27). Hence these participants are the first line of attack or defense when it comes to formulating anti-corruption measures in the construction industry. Therefore, an effective way of fighting corruption, in this case, does not involve just vesting on an individual but in focusing on all parties concerned. At every phase of a construction project, there should be a rigorous auditing process to identify any form of deviation or malpractice. Subsequently, it is important to realize that even if the legal systems provide the check and balances for monitoring and countering corruption, laws alone may not end corruption. For this reason, it is important to strengthen the management, the process, and the transparency of

any construction process. Related personals should also be educated on ethical issues and directed to take integrity oaths before commencing the project.

3.5 UAE Institutions and Government's Role in Fighting Corruption

The government of the UAE has put into place various measures to curb the growth of corruption in the entire sector of the economy. As early as 1987, the country had formulated a federal law that gave provisions on combatting corruption. Subsequently, individual emirates have created various legislations that focus on deterring economic crimes. The government has also created the anti-corruption unit, tasked with investigating and addressing issues related to corruption. The unit was also given the authority to suggest or recommend any change addition or formulation of a legislative framework that will address corruption in the country. So far, the unit has recommended that the country needs legislation which focuses only on corruption and related crimes. As a result of the relentless efforts by the UAE government, the rate of corruption has remained at moderate levels. However, there are still several avenues for improvement to expunge this vice out of the country.

CHAPTER 4: RESEARCH METHODOLOGY AND DATA COLLECTION

4.1 Research Design

Being that this study is aimed at exploring a behavioral characteristic within a society, a qualitative research approach will be the best alternative as compared to a quantitative approach. Exploring corruption in UAE requires an understanding of human and social science which involves a qualitative study (Dornyei 96). In this study, the researcher will administer an online survey where the respondents will self-administer the structured questionnaire. Some of the advantages of using an online survey are that it is easy to administer, it requires minimum time and cost increases the rate of response, and provides automation in data input and handling (Vaske 151). This methodology offers the most efficient model for research design and data collection.

4.2 Population, Sample, and Data Collection

The target respondents' populations in this study are professionals who are involved in the construction industry. This number is huge and almost impossible to establish the exact population size, given limited resources and time. As a result, the researcher used a random sampling technique. The sample size was 50, most of who confirmed that they were actively involved in the industry. Survey questionnaires were sent to the respondents via online survey sites. The researcher estimated a minimum response rate of 50% which will give a total number of 28 respondents. The survey questionnaire used in this study is attached in Appendix 1.

4.3 Questionnaire and Survey Approach

The researcher undertook an online survey in a bid to collect feedback from professionals that can help in supporting this study. 50 questionnaires were sent to professionals within the UAE construction industry. 28 respondents filled in their questionnaires correctly and were used in the analysis section.

CHAPTER 5: DATA ANALYSIS AND DISCUSSION

5.1 Professional Profile

In order to validate the authenticity and quality of the despondence, the researcher undertook a profile analysis of the professional groups who were involved in the study. The first few questions were aimed at establishing the capacity of the respondents and inquire whether they are actually professionals in the construction industry. 96% of the respondents responded in affirmative, with only one respondent stating that they are not qualified professionals in the field. Below table 5.1 representing the respondents' professional profile.

| Answer Choices | Responses |
|----------------|-----------|
| Yes | 96% |
| No | 4% |

Table 5.1: Respondents' Professional Profile

5.2 Respondents' Age Groups, Capability, and Educational level

The respondents were of varied age groups ranging from below 20 years old to 60 years old. Most of the participants were mature individuals with a bigger percentage (32.14%) being between the ages of 31 and 40. There were also 25% who were 51 to 60 (Table 5.2). The maturity of age was also backed with relevant academic qualifications in the field of construction and engineering. 32.14% of the respondents hold master's degrees, 60.71% had bachelor's degree qualification, while the remaining 7.14% had diploma in a field related to construction (Table 5.3). Subsequently, most of the respondents had several years of experience in the industry, giving them a bender understanding of the issues within this sector of economy. Only 17.86% had experience of less than 5 years. 21.43% of the respondent had between 5 and 10 years' experience, 35.71% have been in the industry for

between 10 and 20 years, while the remaining 25% have more than 20 years of experience (Table 5.4). With maturity in age, relevant professional background, adequate years of experience, the reliability of the respondents is higher hence can be considered empirical in this study.

| Answer Choices | Responses |
|----------------|-----------|
| 30 or under | 28.57% |
| 31-40 | 32.14% |
| 41-50 | 14.25% |
| 51-60 | 25% |
| 61 and above | 0% |

Table 5.2: *Participants' Age*

| Answer Choices | Responses |
|--------------------|-----------|
| 0-5 Years | 17.86% |
| 5-10 Years | 21.43% |
| 10-20 Years | 35.71% |
| 20 Years and above | 25% |

Table 5.3: *Participants' the Industry Experience*

| Answer Choices | Responses |
|-------------------|-----------|
| Master or above | 32.14% |
| Bachelor's degree | 60.71% |
| Diploma | 7.14% |
| Other | 0% |

Table 5.4 *Participants' education level*

5.3 Participants' Job Title and Organizational Roles

To further explore the capacity of the respondents, the researcher established the sector in which the respondents are, within the construction industry, as well as their specific roles. This was necessary as various sections of a construction process can be attributed to some elements of corruption. In regard to the job sectors in which the participants were attached, 21.43% were clients, working with public and private sectors, 42.86% indicated that they were consultants, while the remaining 35.71% were either contractors or sub-contractors (Table 5.5). In regard to the current position in the company, 64.29% were in the management or mid-management positions, 32.14% were at junior management position, while the remaining 3.57% were working in other departments such as human resource and administrative, within the construction industry (Table 5.6).

| Answer Choices | Responses |
|-----------------------------|-----------|
| Client (Private or Public) | 21.43% |
| Consultant | 42.86% |
| Contractor or subcontractor | 35.71% |
| Others | 25% |

Table 5.5: Participants' sector involvement

| Answer Choices | Responses |
|--------------------------|-----------|
| Owner/Associate/Director | 0% |
| High Management | 0% |
| Middle Management | 64.29% |
| Junior | 32.14% |
| Others | 3.57% |

Table 5.6: Participant's Recent Position

5.4 Participant’s Involvement in Construction Life Cycle

As pointed out in the previous chapter, construction projects have different faces with different actors and professions, from which corruption can occur. As a result, the researcher established the actual phases of construction in which the respondents were involved. The result revealed that 3.57% of the participants were involved in the project concept stage, 25.00% were participating in the procurement and tendering phase, 60.71% were part of the construction stage, while the remaining 10.71% were in other stages (Table 5.7). This data was necessary in establishing the specific experiences of the respondents in each phase of construction in order to ensure authenticity in their responses.

| Answer Choices | Responses |
|-----------------------|-----------|
| Initial Stage | 3.57% |
| Tendering Stage | 25% |
| Construction stage | 60.71% |
| Warrantee Stage (O&M) | 0% |
| Other | 10.71% |

Table 5.7: Participant’s Involvement in Construction Life Cycle

5.5 Knowledge and awareness of Malpractice in the Industry

In order to establish that there is a problem of corruption in the construction industry, the researcher inquired from the respondents if they are aware of the vice. 3.57% of the respondents strongly agreed that this problem needs intervention, 60.71% agreed that there is corruption, 35.71% mentioned that they were not sure, while there was nobody who disagreed with the fact that there is corruption in the industry (Table 5.8). This is an indication the existence of this problem in the construction industry is well recognized by the players and needs proper intervention.

| Answer Choices | Responses |
|----------------|-----------|
| Strongly Agree | 17.86% |
| Agree | 21.43% |
| Not sure | 35.71% |
| Disagree | 25% |

Table 5.8: Knowledge and awareness of corruption in the industry

5.6 Reasons behind Corruption in the UAE

It is also important to understand the inherent reasons why corruption exists in the UAE, especially within the construction industry. The best way to establish this information is by asking those who are closely involved in the process. Some of the factors that the respondents listed as the major causes of corruption include history, culture, and lifestyle in the region, the involvement of foreigners in the industry, misuse of power by the governmental bodies, the complex nature of the construction industry and poverty. Out of all the five factors, poverty had the highest weighted average of 5.75, followed by other minor or personal factors, then misuse of political power, as the others follow (Table 5.9). This information will be necessary for establishing the most effective ways of curtailing corruption in this sector of economy.

| Answer Choices | 4 | 3 | 2 | 1 |
|---|--------|--------|--------|--------|
| Lifestyle in Middle East | 25% | 35.71% | 17.86% | 21.43% |
| Increased number of expatriate in construction industry | 10.71% | 53.57% | 25% | 10.71% |
| Governmental factors | 17.86% | 32.14% | 42.86% | 7.14% |
| Complexity of construction. | 21.43% | 50% | 14.29% | 14.29% |
| Poverty | 7.14% | 35.71% | 32.14% | 25% |
| Others | 17.86% | 32.14% | 28.57% | 21.43% |

Table 5.9: Main Factors for Corruption in UAE

5.7 The Percentage of Corruption at Every Phase of Construction

In order to establish the extent of corruption at every phase of a construction project, the researcher asked the respondents to the level of each stage’s susceptibility to corruption. Based on the data collected, the most corrupt phase is that of land acquisition with a weighted average of 2.68 out of 4. Other stages such as government approvals, design, procurements, construction, and maintenance were equally vulnerable to corruption with very minimal margin (Table 5.10). This is an indication that all the phases of any construction project must be scrutinized in a bid to curb corruption in the industry.

| Answer Choices | 4 | 3 | 2 | 1 |
|--|--------|--------|--------|--------|
| Allocating of Land stage | 14.29% | 28.57% | 32.14% | 25% |
| Obtaining No Objection Certificate “NOC” | 10.71% | 46.43% | 32.14% | 10.71% |
| Design stage | 10.71% | 42.86% | 39.29% | 7.14% |
| Procurement and tendering stage | 25% | 50% | 21.43% | 3.57% |
| Negotiation and award stage | 32.14% | 42.86% | 21.43% | 3.57% |
| Execution stage | 28.57% | 50% | 21.43% | 0% |
| O&M Stage | 10.71% | 35.71% | 46.43% | 7.14% |

Table 5.10: Percentage of Corruption at Every Phase of Construction project

5.8 Corruption Effect

After establishing that the participants acknowledged the presence of corruption and the prevalence at every level of the construction project, started to seek a better understanding of the impact of corruption. The respondents were asked to respond to the position that corruption results in project delays, increased project costs, and results in poor quality. 95% supported this argument while the remaining 5% posited that they were not sure (Table 5.11). Based on this result the researcher gathered that the three factors mentioned are the main results of corruption in the construction sector in UAE.

| Answer Choices | Responses |
|----------------|-----------|
| Strongly Agree | 40% |
| Agree | 55% |
| Not sure | 5% |

Table 5.11 Influences of Corruption

5.9 Mitigation process at Every Stage of Construction to minimize the Corruption

As mentioned above, corruption occurs at every level of a construction project. Therefore, for one to prevent corruption, they have to address it at every phase. As a result, the researcher sought to identify measures that should be put in place, at every stage, to ensure that the system is water-tight for any form of financial crime.

5.9.1 Land Acquisition and Government Approval Phase

The respondents provided various approaches that should be used within the first stages of construction projects to prevent corruption. One option was to computerize the process of approval so that there will be no human adulteration during the process. Subsequently, there should be public transparency when dealing with payments to ensure that there are no leakages. Another intervention would be to strengthen the planning and approval process hence making it air-tight. An independent body should also be created which undertakes the supervision of all monetary transactions. Finally, there should be enhanced professional ethics and awareness of good governance practices.

| Answer Choices | Responses (# of Participants supporting each point) |
|--|---|
| Automate of Approval process | 8 |
| Transparency of payments with public | 4 |
| Improving planning and approval procedures | 5 |
| Monitor all transactions | 8 |
| Implement professional ethics | 3 |

Table 5.11: Mitigating of Corruption at project Early Stage

5.9.2 The Design Stage

This is the point where the entire blueprint of the project is determined hence a corruption at this phase may be detrimental to the quality and utility of the entire project. Based on the result of this study, one of the ways to prevent corruption at this level is to create the final design at an early stage so as to avoid variation at the later stages. In tendering for the design professionals, the evaluation criterion should be published in the tender. The policymakers should also ensure that the technical competence of the evaluation team members matches the minimum requirements for the project.

| Answer Choices | Responses (# of Participants supporting each point) |
|--|---|
| Finalizing Design and strengthen the specifications at early stage to avoid variations | 9 |
| Adding the Technical Evaluation criteria with the tender package | 4 |
| Ensure the right Procurement Path | 6 |
| Transparent Tender Process among all potential bidders | 6 |
| Enhance the competency of the Technical Evaluation Team | 3 |

Table 5.12: Controlling Corruption at Design Phase

5.9.3 Procurement Phase

This is the phase of construction projects which is the most predisposed to corruption and such crimes at this level result in massive losses and extensive effect on the quality and utility of the final structure. Based on the findings of this study, one way to prevent corruption at this stage is by ensuring that only those bids that have qualified at the technical evaluation levels should be considered during the commercial evaluation. Additionally, tender prices should be announced and placed by the tender committee before the biddings open. Also, the commercial evaluation of the bids needs to be done in-house without hiring consultants. In order to consider a bid for qualification, the award should be based both on the technical qualification and the commercial consideration of the lowest bidder. Finally, once the tender is awarded, there should be no further financial negotiations.

| Answer Choices | 4 | 3 | 2 | 1 |
|--|-----|-----|-----|-----|
| At Commercial Evaluation Stage, only technically accepted offers are considered. | 50% | 25% | 18% | 8% |
| Commercial Offers opened publicly (in front of bidders) | 25% | 47% | 11% | 18% |
| Evaluating commercial offers internally instead of third party (ENGINEER) | 22% | 36% | 36% | 8% |
| Award the project to the technically accepted and lowest bidder. | 22% | 25% | 36% | 18% |
| Minimize the number of financial negotiations. | 25% | 40% | 25% | 11% |

Table 5.13: Controlling Corruption at Procurement Stage

5.9.4: Construction Stage

This is the phase where the actual construction work takes place. Based on the finding of this study, there are five main interventions which should be put in place to control corruption at this stage. The first step is to be consistent with the initial design so that there are minimal variations from the original blueprint. In case there are variations, there must be an investigation to establish whether they were warranted inevitable in completing the project. The third intervention would be to maximize quality standards during the

construction process by undertaking quality tests at every level of construction. There should also be no variation to the preferred vendor list (PLV) throughout the construction process unless it is inevitable. Finally, there should be proper auditing and final accounts to be reviewed by an appointed committee.

| Answer Choices | Responses (# of Participants supporting each point) |
|---|---|
| Control number of variations | 7 |
| Substantiate all submitted Variation and its required to complete the project | 6 |
| Ensure the Quality of the project and meeting the required standard | 4 |
| Stick to the approved Vender List. | 6 |
| Proper auditing by the appointed committee at the closure stage. | 5 |

Table 5.14: *Controlling Corruption at Construction Phase*

5.9.5 Warrantee Stage

This is the point where the construction is complete and the project is handed over to the client with a warranty or guarantee from the contractor. The first step which should be taken at this level to prevent corruption is to specify the monetary values for all the pending and snag items by the end of construction. There should also be spare parts and tag numbers completed during this period of warranty. For all the completed snag items, there has to be discharge certificate for credibility. Subsequently, all the additional works should be restricted to the warranty offered by the contractor. At the end of the warranty period, all the retention money should be released to the contractor.

| Answer Choices | Responses (# of Participants supporting each point) |
|--|---|
| Identify the values for all pending snags. | 5 |
| Identify the required Spare parts during the warranty period | 8 |
| Complete all pending snags on time. | 6 |
| Avoid any additional work or modification by Employer | 4 |
| Release all Contractor's due payments and bank guarantees. | 5 |

Table 5.15: Mitigating Corruption at Warranty Phase

5.10 The Importance of Fighting Against Corruption?

The fight against corruption in the UAE construction industry remains elusive, hence prompting the need to invigorate the process. This study reveals that one of the reasons why the intensification of the fight is necessary is because corruption drains huge sums of money which resulted in inflated costs of construction. Corruption also leads to poor quality products as some of the resources are misappropriated. Therefore, the people of UAE should encourage and develop a culture with more responsibility and accountability. Subsequently, there are too many gaps that must be filled in the existing legislative and political framework that must be filled to control corruption in the industry.

CHAPTER 6: CONCLUSIONS & RECOMMENDATION

6.1 Conclusion

In order to verify the provisions in the existing literature, the researcher undertook a qualitative study. In this undertaking, the researcher involved 28 professionals in the construction industry to establish their views and their recommendation regarding corruption in this sector. The first stages of the survey involved vindicating the authenticity of the respondents to establish whether they have the professional and academic authority to make their reliable. The findings revealed that more than 95% of the respondents were professionals with relevant academic background and years of experience in the industry. The respondents confirmed that they were conscious of the corruption in the industry which they confirm to be resulting in project delays, increased project costs, and results in poor quality. The study also confirmed that corruption happens at every phase of construction. For this reason, the recommended interventions must be made at every stage to ensure the resultant product is of intended quality and utility. There is also the need to bridge the gaps that exist in the current legislative, institutional, and political frameworks that provide way-leave for corruption and other forms of economic rimes in the industry.

6.2 Recommendations

The government, through the legislation, should implement the recommendation by the anti-corruption unit which called for the formulation of specific legislation that deals with corruption. Currently, the country is relying on the existing statutes which barely provide framework for fighting economic crime. By creating an act that deals only in corruption, the function of the anti-corruption unit will be ease and this will bridge the existing legal and institutional gaps.

The second recommendation is to address corruption at every stage of construction. The current existing interventions provide blanket interventions without considering the fact

that construction is a complex endeavor with different isolated stages run by different individuals. By addressing the gaps at every level of projects, the entire construction process will be rendered more authentic and less corruptive.

Despite the existence of a code of conduct among the engineers and construction professionals, corruption is still rampant in the sector. The study recommends that the implementation process must be more vigorous. Every professional involved in the construction process should be audited during the process and upon completion to ensure that they adhere to the said codes. Loopholes at every stage should also be identified and addressed to end the cases where corruption can go unnoticed.

While the culture of UAE people is unique and makes it less susceptible to corruption, it is important to appreciate the fact that most actors in the industry are foreigners. These expatriates come from countries with different cultures and moral standards. For this reason, standardized regulations and verification processes should be applicable to all the actors, whether they are citizens of the UAE or not.

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APPENDIXES

Appendix 1: Online Survey Questionnaire

1. Are you part of the construction industry?
 - Yes
 - No

2. What age criteria do you fall in?
 - 30 or under
 - 31-40
 - 41-50
 - 51-60
 - 61 and over

3. What are the acquired years of experience in the Construction industry?
 - 0-5 Years
 - 5-10 Years
 - 10-20 Years
 - 20 Years above

4. What is your highest level of education?
 - Masters
 - Bachelor's
 - Diploma
 - Others

5. Who are your directly involved with in your field of work?
 - Clients (Public & private)
 - Consultants
 - Contractor and subcontractor
 - Others

6. What position do you hold in the Company?
 - Owner/Associate/Director
 - Higher Management
 - Manager
 - Junior Management
 - HR & Administration or others

7. In what phase of construction activities are you part of?
 - Project concept Stage
 - Procurement and tendering stage

- Construction stage
- Warrantee Stage
- Others

8. Corruption in the Middle East and worldwide in Construction industry is very common. What do you think?

- Strongly agree
- Agree
- Not sure
- Disagree

9. What are the main reasons for corruption to be dominant in the construction industry as per your experience. (Rate 4 is very important, Rate 1 Least important).

- Lifestyle in Middle East
- Increased number of expatriate in construction industry
- Government factors
- Complexity of construction.
- Poverty
- Others

10. Rate the level of corruption, in Construction industry in reference to different phases.

(Rate 4 for the most Corrupted stage, Rate 1 for the least Corrupted stage).

- Allocating of Land stage
- Obtaining No Objection Certificate “NOC”
- Design stage
- Procurement and tendering stage
- Negotiation and award stage
- Execution stage
- O&M Stage

11. What practices are most corrupted in the industry?

(Rate 4 for most corrupted, Rate 1 for Least corrupted practice).

- Awarding Stage.
- Procurement Stage
- Selection of sub-contractors

- Selection of suppliers
- Corrupted government Entities
- Bribing Employer employee
- Bribing the assigned Engineer
- Others

12. What is your opinion in regards to project delays, increase of project cost, poor Quality and incompleteness due to corruption?

- Fully agree
- Agree
- Not sure
- Disagree

13. In acquiring land and obtaining approval from government, what actions are necessary to minimize corruption?

- Automate of Approval process
- Transparency of payments with public.
- Improving planning and approval procedures.
- Monitor all transactions
- Implement professional ethics.

14. At design stage, what procedure is needed to control corruption?

- Finalizing Design and strengthen the specifications at early stage to avoid variations
- Adding the Technical Evaluation criteria with the tender package
- Ensure the right Procurement Path
- Transparent Tender Process among all potential bidders
- Enhance the competency of the Technical Evaluation Team

15. At Tender evaluation, negotiation and award stage, what procedure is needed to control corruption?

(Rate 4 is most significant action and, Rate 1 Least significant action).

- At Commercial Evaluation Stage, only technically accepted offers are considered.
- Commercial Offers opened publicly (in front of bidders)
- Evaluating commercial offers internally instead of third party (ENGINEER)
- Award the project to the technically accepted and lowest bidder.
- Minimize the number of financial negotiations.

16. How can Corruption at Construction stage be controlled?

- Control number of variations
- Substantiate all submitted Variation and its required to complete the project.
- Ensure the Quality of the project and meeting the required standard.
- Stick to the approved Vender List.
- Proper auditing by the appointed committee at the closure stage.

17. What actions can be taken to minimize the corruption at warranty stage?

(Rate 4 is most significant action and, Rate 1 Least significant action)

- Identify the values for all pending snags.
- Identify the required Spare parts during the warranty period.
- Complete all pending snags on time.
- Avoid any additional work or modification by Employer
- Release all Contractor's due payments and bank guarantees.

18. What is your thought about fighting against corruption?

(Rate 4 highest ranking and Rate 1 Least ranking).

- Most of the people in corruption having Power and links.
- Complexity of the industry
- Shortage of strong evidence.
- Farness of losing job
- People having no interest on corruption in general.

19. What is the major aspect required to eliminate corruption?

(Rate 4 highest ranking and Rate 1 Least ranking).

- Establish a law that prevent corruption.
- Deterioration of quality of end product.
- More responsibility and accountability on the senior management.
- Improve the entire construction regime.
- Automate the Construction process from Initiation till closure stage.

20. What is required as immediate action to be taken when corruption occurs?

- Report to the concern authorities.
- Report to the senior management.
- Be part and negotiate with the act.
- Investigate internally.
- Do nothing.

21. Is Code of Ethics part of your organization?

- Yes
- No
- No Idea