UNIVERSITY OF GHANA BUSINESS SCHOOL (UGBS)

VALUE OF RISK MANAGEMENT FOR PRIVATE REAL ESTATE DEVELOPMENT COMPANIES UNDER GREDA.

BY

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A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF ORGANISATION AND HUMAN RESOURCE MANAGEMENT, UNIVERSITY OF GHANA BUSINESS SCHOOL, UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER OF ARTS IN MANAGEMENT AND ADMINISTRATION.

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DECLARATION

I do hereby declare that this work is the result of my own research and has not been presented for any academic award in this or any other university. All references used in the work has been fully acknowledged.

I bear sole responsibility for any shortcomings.

…… …….

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(STUDENT)

CERTIFICATION

I hereby certify that this project work was supervised in accordance with procedures laid down by the University of Ghana, Legon.

…….. …..……

DR. OBI BERKO DAMOAH DATE

(SUPERVISOR)

DEDICATION

To the glory of the sovereign God, who was, who is and who will forever be!

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LIST OF ABBREVIATIONS

GHFC	Ghana Housing Finance Company
MWH	Ministry of Works and Housing
PHC	Population and Housing Census
GHC	Ghanaian Cedi
GREDA	Ghana Real Estate Developers' Association
GLSS	Ghana Living Standards Survey
WB	World Bank
UN-HABITAT	United Nations Human Settlements Programme
NSS	National Shelter Strategy
GLSS	Ghana Living Standards Survey
WEF	World Economic Forum
GDP	Gross Domestic Product
PM	Project management
PRM	Project Risk Management
PLC	Project Life Cycle
RM	Risk Management
RMP	Risk Management Process

ABSTRACT

In the context of increasing rural-urban migration, real estate development is becoming fast-emerging as the desire for shelter and individual abode increases. This development has given rise to a high volume of developmental activities. Development project have a few attributes, for example, time limit, budgetary imperatives and financial necessities, individual authoritative and legitimate conditions, intricacy and orderly qualities, so every project in itself is an interesting framework. Many uncertainty facets and risky situations tend to affect the success rate of various projects being undertaken. These uncertainties can either be pre-established ahead of time or can come along as the project is being undertaken. Understanding that the various uncertainties will undoubtedly happen help in the effective managing of them.

This study was aimed at assessing the benefits risk management has to organizations in relation to project success. To achieve that, qualitative design was adopted where twenty respondents were targeted purposively to share their rich and in-depth knowledge via face-to-face interviews. Ethical considerations were highly upheld during the conduct of the study and the results were analyzed using thematic analysis. The findings from the study revealed that; stakeholders' in real estate development quest for zero or near zero risk projects through the application of structured risk management practices, internal stakeholders have skewed negative view about risk and have basic knowledge on risk and risk management, professionals are using strategies to manage and mitigate risk within the real estate developement sector. The study provides recommendation including; educating organizations on risk factors that can affect project performance, development of risk management plan for each project, provide training and retraining of the project team towards the risk and its management to make it be a priority in order to arrive at successful projects and advance the business of the firm.

SECTION ONE
INTRODUCTION

1.1 Background

The combination of fast populace development, urbanization, and monetary advancement are putting the African continent at risk concerning fulfilling the expanding needs for housing and urban arrangement (Goodfellow, 2017; Pitcher, 2017). The renowned psychologist, Abraham Maslow stated that, the first and strongest need for humankind in order for survival is the physiological need; consisting of air, food, drink, shelter, warmth, sex, sleep (Maslow, 1954). This assertion is contended by Karl Marx who states that life involves before anything else, eating and drinking, a habitation, clothing and other things (Marx, 1939). As such, housing which falls under shelter is an indispensable need. To fulfill the shelter's need, integrated and systematic housing are growing.

Africa has been urbanizing at a rate of 3.5 percent per year during the past two decades—the highest regional urbanization rate in the world (African Development Bank, 2012). The housing challenge is notably severe in Accra, Ghana, where the urban population has grown by 19.5 percent since 2000 (World Bank, 2013), requiring 5.7 million new rooms in Ghana to be built by 2020; this means that a total of 574,000 rooms must be provided every year; 1,840 per working day, and about four every minute (UN-HABITAT, 2011). This figure is well beyond the capacity of the Government and the formal business sector to accommodate. This has incorporated the development of housing and real estate business as a separate and distinct economic sector. The real estate sector is a rapidly growing economic sector of the country and contributing to the economic growth in terms of revenue generation, employment and using both foreign and local real estate development materials (Owusu-Manu, Edwards, Badu, Donkor-Hyiaman, & Love, 2015). Though growing, the sector is confronted with various types of risks.

1.2 Statement of Problem

The housing sector in Ghana has experienced principal changes since the 1990s with policy center being moved away from direct state arrangement and moving unequivocally towards dynamic private segment cooperation in lodging creation, financing, and generation of structure materials. Factors causing this include but not limited to failure of open housing programs, waning state assets, unremarkable execution of state-possessed endeavors, and acknowledgment that the central government administration alone can't tackle the housing issue. In light of this, the Ghana Real Estate Development Association (GREDA), an association of Real Estate Developers, was established in 1988 under the Laws of Ghana (Company Code, Act 179, of 1963) as a Private Company limited by guarantee to provide a central organization for real estate developers. The Association, which represents the traditional real estate development sector currently, has 183 registered members. Nevertheless, there exist myriad challenges facing the real estate development sector in Ghana today as reality still seems to be lagging much behind the expectations despite GREDA's introduction.

Despite the fact that property development companies are considered to be the greatest risk-takers (Raftery, 2003), the sector falls behind different enterprises in its use of refined methods in risk recognizable proof, risk assessment, relief, and control (Berlindhaug & Nordahl, 2018). Wilkinson and Reed (2008) assert that estate and property developers are inept in understanding and analyzing risk. However, it can be argued that, the research literature on property development risk is limited and there have been calls for consultants, researchers and scholars to provide both basic and applied knowledge for action by stakeholders (Jensen & van der Voordt, 2016; Ogunbayo, Odebode, Oyedele, & Ayodele, 2019). Where there have been studies in property development, most examinations deal with risks focused on assessing property development risk without featuring key risk factors in the development procedure. These approaches largely concentrate on feasibility and/or cash flow

analyses (Mwathi & Karanja, 2017; Owusu-Manu et al., 2015), giving limited attention to property development risk management process.

In the case of Ghana, the real estate development sector has a very poor reputation for coping with risks (Amoah, Ahadzie, & Dansoh, 2011). Risk management has still not been keenly adopted as a bailout for the uncertainties in real estate development. The fundamental focal point of this work is residential real estate in Ghana since this region has a moderately more elevated amount of interest because of the size of the lodging shortfall when contrasted with commercial real estate. A fundamental piece of the project will, in this manner, be a basic assessment of the real impacts and value as far as the consequent usage of risk management techniques have so far brought to the real estate development sector of Accra by taking organizations under the Ghana Real Estate Development Association (GREDA) as respondents.

1.3 Research Questions

The overarching exploration question that this study attempts to answer is to examine the value of risk management for the private real estate development sector in Accra, Ghana. In order not just to answer but also explore the major research question posed above in this study, the following corroborative research questions are asked in the study.

i. How well is the concept of risk and risk management understood by key stakeholders in the real estate development sector?
ii. What are the major adversities/risks faced by the real estate development organizations in Ghana?
iii. What effects can those identified risks have on time, cost and quality?
iv. What is the value of project risk management on real estate development?

1.4 Objectives of the study

The general objective of this project is to provide understanding of the risk characteristics of real estate development and the prescribed procedures used to deal with these risks. The specific objectives of the study are as follows:

i. Understand how risks and risk management is perceived by professionals in the real estate development sector of Accra.
ii. To examine the major challenges faced by the real estate development companies in Accra, Ghana.
iii. Understand how risk management process is utilized in practice in the selected real estate companies under GREDA.
iv. Know and understand the value of risk management in addressing the uncertainties in private real estate project development.

1.5 Significance of the Study

This study will evaluate how the risk management process is used in the real estate development sector and how the practitioners are managing risks in everyday situations. Also, the study provides empirical insight into the current risks faced by the real estate development sector of Accra and argues for the need to plan and apply risk management strategies in order to achieve project success. Moreover, from a risk management and real estate development-oriented perspective, the findings would act as guide to the practitioners in the real estate development sector to understand the value in applying risk management practices during their project development.

1.6 Profile of the Study Area

Greater Accra Region, Accra

Box 1.1 Economy of Ghana in a glance

Ghana's economy accelerated to 8% in 2017, driven by the mining and oil sectors, making it the second-fastest growing African economy. In 2018, Ghana's economy continued to expand rapidly, albeit at a slower pace than the rate in 2017. Quarterly gross domestic product (GDP) growth was estimated at 5.4% in the first quarter of 2018; and 5.4% in the second quarter. The full-year real GDP growth projection was revised from 6.8% to 5.6%.

Ghana's growth target for 2019 is 7.4% mainly to be driven by the extractive sectors, especially oil, gas and mining. These sector's growth is expected to improve to 9.7%; the agriculture sector is expected to grow by 7.3% on the back of the government flagship programs in the sector which will enhance performance in the crops sub-sector. The service sector growth, however, is projected at 6.1%, slightly below the 2018 projection of 6.2% as the financial sector continues to recover from its recent challenges (MoF, 2018).

The City of Accra is the national capital city of Ghana with a total land area is 3,245 km^2. The region lies in the southernmost part of the country. The Greater Accra Region shares boundaries with three other regions, Eastern region on the North, Volta region on the East and Central region on the West. The South of the Greater Accra Region is bound by the Gulf of Guinea. The 2010 Population and Housing Census indicate that the region has 4,010,054 inhabitants (16.3% of Ghana's population), consisting of 2,071,829 females and 1,938,225 males (GSS, 2012). Having the smallest land size, but with the second largest population, the Greater Accra region, therefore, has the highest population density of 1,236/km^2 (GSS, 2012). The Greater Accra Region displays historically important monuments like the National Museum, Christianborg Castle, the Kwame Nkrumah Memorial Square as well as the Independence Arch. The region is also dotted with wetlands and beaches around its many lagoons and along the coast of the Gulf of Guinea respectively.

Figure1.0 Regional map of Ghana showing study area

Source: World atlas (2019)

1.7 Organization of the study

The study is organized into five main sections corresponding to the steps taken to conduct the study;

Section One is Introduction. This section provides an outline for the study and covers areas such as background of the study, research problem, research purpose, research objectives, research questions, significance of the study, and the organisation of the study.

This is followed by Section Two which is Literature Review. It presents a review of relevant literature on the concept of risk, project development and risk management strategies.

Section Three enumerate the Methodology. The research methodology and the sampling techniques used are discussed. Also, the instrument for data collection and method used as well as data processing and analysis are explained.

Further is the Section Four which outlines step by step Discussion and Analysis of Findings. This section presents the data, offer discussion, and analysis of findings using qualitative analytical tool-thematic analysis.

The final section, Section Five provides the Summary, Conclusion and Recommendations. The summary of the research, recommendation and the future research directions are discussed.

SECTION TWO
LITERATURE REVIEW

2.1 Introduction

The literature review seeks to introduce existing theories of risk management. This will help to understand the foregoing theoretical references to risk management in this study as well as to appreciate the practical exploration and discussions of the global project risk management in this section, and the situation of real estate development in subsequent ones. The literature relevant for this study is therefore reviewed broadly under the general concept and understanding of risk, major risks faced by real estate firms, risk management technique and the framework for distinguishing proof of possibly related risks inside the various phases of the development procedure and methods for overseeing risks.

2.2 The Ghanaian Housing Evolution

Ghanaian houses in prior occasions were affected by convention and culture, just as through the accessibility of structure materials. Previously, Ghanaian families were primarily administered by a more distant family framework. There was a more grounded feeling of network and this was found in the structure and design styles utilized during that period. For example, most homes were worked in a yard style, referred to by local people as 'compound houses' with materials, for example, mud, bricks, clay and numerous others (Boamah, 2010). These houses were commonly encased in a compound, pleasing various individuals from a more distant family. In these mixes, families would cook, play and interface with one another. This demonstrated a feeling of harmony and an augmentation of the Ghanaian culture.

Figure 2.0: Image of a mud house

As the family framework developed, lodging styles and design in Ghana additionally stuck to this same pattern. Ghanaians have developed to turn out to be increasingly individualistic and in like manner, family frameworks have turned out to be progressively nuclear (Ardayfio-Schandorf, 2006).

2.1 Some Examples of Modern Residential Buildings

Figure 2.1: Villagio; the tallest building in the heart of Accra.

Figure 2.2: The Gallery; located in the heart of East Legon, a suburb of Accra

These contemporary buildings shown in Figure 2.1 and 2.2 are situated in the core of Accra, only a 10-minute drive to Kotoka International Airport and a short stroll from the Accra Mall. The development appreciates a suite of relaxation offices and, overseen by the Clifton Homes Facilities Management group. Because of people preference for new principles and upgrades in innovation and furthermore because of the developing need of modernization, Ghanaian design appears to have no strong style of its own yet rather a blend of different adopted styles.

2.3 The Real Estate Development

Real estate development is a multifaceted business, wrapping exercises that reach out from the remodel and re-rent of existing structures to the purchase of crude land and the closeout of improved bundles to other people. Developers are the coordinators of those activities, converting ideas on paper into real property (Peiser & Frej, 2003). Real estate development as set out in area 55 (I) of the British Town and Country Planning Act 1990 states that "development implies the doing of the structure or different activities in, on, finished or under land, or the creation of any material change in the utilization of any structures or another land." This definition mirrors the utilitarian qualities of real estate development. The private

segment of this sector is seemingly the most significant part in the entire working of a city when contrasted with business real estate ventures. This is on the grounds that private development directly affects every other angle in a city (Prinsloo & Prinsloo, 2004). Real estate is regularly characterized as a triangle of quality, cost and time. In this sense, a specific use is attributed to a characterized space which creates an expected income over a particular timeframe. In view of this approach, there is an economic advantage gotten from the space delivered by the engineer. Urban development is a perplexing procedure which involves the organization of money, materials, work and mastery by numerous actors inside a more extensive, social, economic and political condition. Although this definition alludes to urban development, it is valuable in that it respects development from a more extensive viewpoint to incorporate a more extensive scope of factors pertinent to real estate development. This conceptual understanding makes more grounded reference to the creation factors of the area, venture thought and capital, which structure the beginning stage of real estate development and whose compelling blend results in particular speculation (Healey, 1992). This definition tends to both the full scale economic and the small-scale economic impact dimension of real estate development. From a large-scale economic point of view, it is necessitated that the real estate, as the result of the development process, fulfills the open need, while it must be focused, beneficial and supportable from a miniaturized scale economic viewpoint.

2.3.1 Overview of Real Estate Development Sector in Ghana

Ghana is famous as a developing market in sub-Saharan Africa, with a large part to contributions from the development and building real estate development sector (Laryea, Leiringer, & Hughes, 2010). This sector is dominated by physical infrastructure and asset-based-loaning as a means for development and development (Songwe, 2014). According to Asamoah and Decardi-Nelson (2014), the real estate development sector contributes about 5% to 10% of Gross Domestic Product (GDP) to the nation and utilizes nearly 10% of the working population.

Property development plays a pivotal activity in Ghana's property architecture and economy. The area comprises of a wide scope of associations, people, and the State connected with making and dealing with the property to meet the commercial, lodging, business and the social needs of the inhabitants. Property development stretches out in Ghana envelop private properties, commercial properties, modern structures, wearing and recreation facilities, parking facilities, etc. The Ministry of Water Resources, Works and Housing, in charge of the lodging infrastructure and real estate development throughout the nation, classifies incorporating contractors with four groupings: ventures worth up to $75,000 (D4K4); ventures ranging from $75,000-250,000 (D3K4); ventures worth $250,000-500,000 (D2K2); and tasks over $500,000 (D1K1) (Frimpong & Kwasi 2013). The majority of the companies in Ghana fall under D4K4 and D3K4 classification (Oxford Business Group, 2014). The Chartered Institute of Building in Ghana estimates that there are more than 1,600 structure contractors working in Ghana since October 2012 (Oxford Business Group, 2014). Although the real estate development sector bolsters the nation's economy and in this way gives a means to social development, the sector is characterized by unprofessional practices (Asamoah & Decardi-Nelson, 2014). The sector experiences a lack of planning, including inappropriate water and vitality use, building material consumption, failure to meet consumer/tenant needs, and disconnected stakeholders' cooperation in the sector (Twumasi-Ampofo et al., 2013). The sector is also gripped with dealing with a national lodging issue needing 70,000 units annually and an accumulated conveyance deficiency of 250,000 units to satisfy the lodging needs (Twamasi-Amofo et al., 2014). These figures are backed up by the UN-Habitat who gauges that Ghana will require two (2) million new lodging units by 2020 to satisfy the need for lodging (Ilamura 2013). Ofori (2012) also explains that most real estate development extends in Ghana have a long gestation period because of their large and complex nature and hence are moderate to react to planned and unplanned changes. In this manner, there is a need to mitigate the sustainability challenges in the real estate development

sector by immediately integrating sustainability and hazard management strategies into its practices.

2.4 Theoretical framework

A theory is a set of assumption that provides explanation to a phenomenon (Shoemaker, Tankard, & Lasorsa, 2003). The current study adopted the Extreme Value theory as its theoretical approach for this study. This provides the framework to understand the conceptualization, perception and evaluation of risk in the real estate development sector.

2.4.1 Extreme Value theory

Embrechts, Resnick and Samorodnitsky (1999) postulate that the Extreme Value theory is a valuable theory that help explain undergoing major changes that increasingly expose a project to greater risk which can only be mitigated by strategic approaches. Increasing complexities within the real estate development sector ranging from financial instruments, demand and regulatory framework calls for sophisticated risk management tools. According to the theory, exposure to high risk and losses are assumed to be independent and identically distributed. The minimal mitigation approaches adopted by management will expose the firm or its operation to higher forms of risk and vice versa. The theory tends to assess from a given phenomenon the probability that an extreme event may have significant effect on the phenomenon such as a real estate development. The theory is valuable as it has been found to have great utility in risk management studies (Castillo, 2012; De Haan, Ferreira, 2007)

2.5 Empirical Literature

2.5.1 The Understanding of Risk

Risk Management is an integral part of conducting real estate development project (Osipova & Eriksson, 2013). Thus, risk is an ingrained aspect of business. Winch (2010) defines risk as an absence of information when a decision needs to be made at any time throughout a process. Al-Bahar (1998) also defines risk as the exposure to the chance of occurrences of

events adversely or favorably affecting project objective as a consequence of uncertainty. ISO 31000/ISO Guide 73 (2009) defines risk as to the "effect of uncertainty on objectives" (p. 1).Characteristically, risk is an uncertain occasion that has either a positive or negative impact on a task's objectives or any uncertain occasions that can sway on the accomplishment of a venture. It can both happen at a moment, as a shock, or can be distinguished ahead of time; thus, the relationship amongst risk and time is of extraordinary significance.

With regards to vagueness, risk has today turned into a trademark (Johansen & Rausand, 2014). It is a point of dialog and examination, nervousness and hypothesis (Rausand, 2011). The overview of definitions which can be found in literature regarding those two terms implies that uncertainty is a broad concept and risk is a part of it. This confirms close relation between those two concepts but at the same time distinguishes them.

In the following facets, the focus is on risk itself and how it should be handled.

2.5.1.1 Type of Risks Found in Real Estate Development

Real estate development is a multifaceted procedure: it begins with land development, trailed by private as well as business development and finishes with the advertising stage which involves the deal or renting of the finished site. Each stage involves various risks which are differently allocated between landowners, land developers, and homebuilders (Chiara & Rubina, 2014). A couple of risks have been found to impact the project team in the real estate development sector. In like manner, experts have made an alternate system of project risks suitable to the real estate development sector.

The most essential structure of undertaking risks is encapsulated by three segments of risks and was detailed by Ibrahim and Kagara (2014) in their examination and was later adjusted in another setting by Ekung et al. (2015). This structure perceives a land improvement venture risk as a constituent of the accompanying classes:

- Financial risks
- People risks

- Material/Equipment risks

These categories of risks are discussed as follows:

Financial Risks

This is a class of risk components that identify with the probability of a venture's financial needs and expected effect not being met (Aminu, 2013). Likewise, this classification is comprehensively affected by irregular occasions that are probably going to realize financial disadvantages in an undertaking. These occasions are legitimate risks or are risk drivers since they go with undertaking execution which may cause a deviation from the venture pre-planned (Ekung et al., 2015; Ibrahim & Kagara, 2014).

At more terrible, financial risks impede venture conclusion and may result in an undertaking not yielding the normal financial esteem. Instances of this segment are inflation, deferred installments, and exchange rate fluctuation (Aminu, 2013). Consistently, every one of these components of the financial risk part is an arbitrary occasion as prior referenced. They are arbitrary occasions in light of the fact that their event isn't under the all-out control of the venture group and supervisor. Inflation and exchange rate fluctuation, for example, are financial pointers impacted by the totality of the full-scale monetary situation.

All things considered, the seriousness of financial undertaking risks is once in a while communicated as far as their association with different risks, for example, material risks.

People Risks

This segment of risks is recognized by Tipili and Ilyasu (2014) as the premise of financial and material risks. Commonplace precedents referred to by Odimabo and Oduoza (2013) are the absence of requisite abilities and learning among project colleagues; powerlessness of experts to work and fix gear; and administrative inadequacy and wastefulness.

With regards to some different models of risks, for example, Odimabo and Oduoza (2013) referred to precedent which is conceptualized as managing risks and configuration risks. Another extensive structure of real estate development project risks was planned by Odimabo

and Oduoza (2013). Their structure can be viewed as a feature of the one just examined on the grounds that it contains financial, material and individual risks. The main part is the physical risks. A case of this segment in the event of a mishap, potentially because of poor security safety measures taken. The people risk also encapsulate the human resource planning that is instituted that ensures the welfare of contractors and employees at the site under development. Physical and mental health risk is prevalent within these sites under construction due to the number of hazards and accident proneness of the construction site to workers. This risk is also critical when conceptualizing risks in project development (Ibrahim & Kagara, 2014).

Material/Equipment Risks

Successful implementation of the project requires the use of a wide scope of materials and equipment. It is in view of this fact that logistics and procurement management is an intrinsic aspect of the project management professional. Odimabo and Oduoza (2013) propounded that material risks prevail because of the tendency of, among others: lacking access to the needed logistics and equipment possibly because of financial constraints; failure of suppliers to meet timelines; and equipment failure.

The inherence of material risks in the project management experts presents the need for companies to expand efforts to hedge against them. Managing material risks is however considered a harder task because they relate to both financial and people risks (Aminu, 2013).

2.5.2 Understanding Risk Management Process

Risk Management within projects is currently one of the critical topics of concern for researchers and practitioners operating in the area of project management (Raftery, 2003).

Within the presently accepted composition of project management lies the life cycle process. The perception is that it operates as a process that supplements the project from its definition through its planning, execution, and control phases up to its completion and closure (Raz &

Michael, 2001). Risk management process is the basic principle of understanding and managing risks in a project. It consists of the main phases: Identification, Assessment and Analysis, and Response (Gehner, 2005; Smith et al., 2006). The principal objectives of project risk management are to improve the probability and consequence of actual cases and decrease the likelihood and impact of adverse events in the project. Of course, any project risk management process requires tools for its implementation. The adoption of analysis, planning, control, or management tools involves a particular investment, which in some instances may be quite significant. This cost represents the effort required, both at a personal and at the organizational level, to understand and to learn how to use the tool and to acquire the necessary infrastructure (technical expertise, computing aids, databases, operating procedures, etc.). That's why organizations should be very cautious about which tools should be adopted.

Analysis of the processes of project risk management and their most essential tools and techniques is illustrated in Figure 3 to demonstrate how risk management process (risk control) is influenced by risk identification, risk analysis, risk response and risk review which are discussed below;

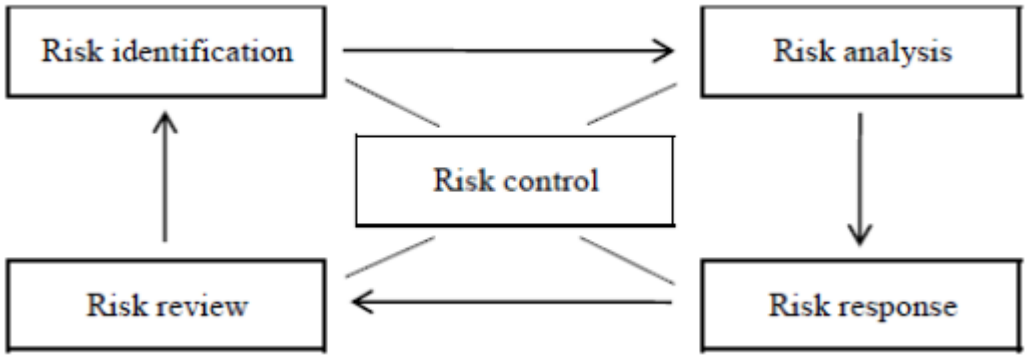

Figure 3: Risk Management Process (Smith et al., 2006)

2.5.2.1 Risk identification

Winch (2002) maintains that the first step in the risk management process is ordinarily informal and can be achieved in multiple forms, depending on the organization and the

project team. This step does suggest that the identification of risks relies principally on experience from past projects for future projects. Allocations are done to find potential risks. Risks and other threats are difficult to eliminate; however, when they have been identified, it is easier to exert efforts and have complete oversight on them. If the causes of the risks have been distinguished and earmarked ahead of any problem occurring, then Risk Management becomes more active (PMI, 2004). Risk management is not merely solving problems in advance. Risk Management is also staying ready in the event of potential issues. Handling potential threats are not only a way to minimize losses within the project. Another way is to transfer risks into opportunities, which can lead to economic profitability, environmental, and other advantages (Winch, 2002). The primary purpose of identifying risks is to obtain a list with potential risks to get managed in a project (PMI, 2004). Finding all possible risks which might impact a specific project, different techniques can be applied. It is essential to use a method that the project team is most familiar with, and which the project will benefit. The aim is to highlight the potential problems for the project team to be aware of them. All the methods that are systematized by this process reside in the literature (Lester, 2007; PMI, 2004; Smith et al., 2006)

2.5.2.2 Risk Analysis

In performing a risk analysis, collected data about the potential risk gets analyzed. Risk analysis is, shortlisting risks amidst the most significant impact on the project, besides all the threats mentioned in the identification phase (Cooper et al., 2005). Two categories of approaches – qualitative and quantitative – have been realized during the analysis of the identified risk. The qualitative methods are the most applicable when risks can be placed somewhere on a descriptive scale from high to a low level. The quantitative methods are adopted to ascertain the feasibility and impact of the risks identified and based on numeric estimations (Winch, 2002). Businesses favor the use of the qualitative approach since it is more convenient to define the risks than to quantify them (Lichtenstein, 1996). There is

another approach called semi-quantitative analysis. This approach combines numerical values from quantitative analysis and description of risk factors, the qualitative method (Cooper et al., 2005). The methods are determined based on the type of risk, project scope, as well as on the specific method's requirements and criteria. Regardless of the method selected, the desired outcome of such an assessment should be reliable (Lichtenstein, 1996). Perry (1986) suggests that the selection of the appropriate technique usually depends on experience, expertise, and also on the available computer software. Lichtenstein (1996) explains several factors that can influence the selection of the most appropriate methods in the risk assessment for the right purpose. It is up to each company to make a decision which of these factors are the most critical for them and develop the evaluation accordingly.

2.5.2.3 Risk Response

This third step of the Risk Management Process (RMP) indicates what action is necessary towards the identified risks and threats. The response approach and method adopted depend on the kind of risks (Winch, 2002). Different requirements are that the risks need to have an administrator to monitor the growth of the response. This step gets accepted by the actors involved in this risk management process (PMI, 2004). Winch (2002) maintains that the lower the impact, the better it can be managed. Similar traditional strategies for risk response are Avoidance, Reduction, Transfer, and Retention (Potts, 2008). Beyond these models of reactions, Winch (2002) illustrates that sometimes it is challenging to arrive at a decision based on minimal information. This action may get a go-around by waiting until the appropriate information is available to deal with the risk. This process of acting is termed "Delay the decision," although this approach does not apply in all circumstances, particularly when handling critical risks. These need to be administered earlier in the process.

2.5.2.4 Risk Review

This final step of the risk management process is essential, considering all data concerning the identified risks obtained and controlled (Winch, 2002). The constant surveillance over the

RMP endeavors to discover new threats, maintain a record of known risks and mitigate past risks from the risk assessment and project (PMI, 2004). PMI (2004) further asserts that the premises for monitoring and controlling continue to oversee the status of the risks and take curative actions if required. Tools and techniques used to risk monitor and control may be (PMI, 2004):

- Risk reassessment –identification of new potential risks. This process is a repeated, continuously process throughout the whole project
- Monitoring of the overall project status –are there any changes in the project that can affect and cause new possible risks?
- Status meetings – discussions with risks owner, share experience, and helping to manage the risks.
- Risk register updates

2.6 The Value of Risk Management

Project risk management is important in project development. This observations and findings have been found empirically by researchers and consultants as such (Besner & Hobbs, 2006; Raz & Micheal, 2001). Lyons and Skitmore (2004) conducted a survey to examine the value senior management place on risk management. They found that risk assessment is mostly used because of its ability to help identify potential risk and interventions to eliminate or minimize a risk on project delivery time. The process of the value of risk management was examined by Hillson (2017) who found that organizations create greater essence in terms of profitability and project performance when they incorporate risk management in their operations than firms that do not engage in effective risk management. This involve a method of creating a risk register where all risks and their management can be allocated to facilitate future projects (PMI, 2004). All steps in the project risk management should be included when dealing with risks, to implement the process in the project efficiently. It is impossible to

prognosticate the future. Instead, it acts as a tool to facilitate the project to make better decisions based on the information from the investment. In this way, decisions based on insufficient data can see avoidance, and this will lead to better overall performance (Aven, 2016).

It is, therefore, the task of risk management to continuously provide management with the best possible information, systems and procedures to form a solid foundation for the risk decision-making process regarding uncertainties and/or potential opportunities and risks for value addition in project development.

2.7 Challenges faced by real estate firms

The real estate firms face challenges which affect their operations and ability to expand to provide quality goods and services to its clients. The challenges include financial constraint, inadequate skilled personnel, decline in demand, high regulatory framework making operational cost expensive among others (Abor & Quartey, 2010; Ocloo, Akaba, & Worwui-Brown, 2014). These are highlighted in the following empirical studies;

Chan, Darko, Olanipekun and Ameyaw (2018) examined critical barriers facing the real estate sector in developing countries by using Ghana as a case. The study was quantitative in nature where questionnaire surveys were given to respondents who have experienced using facilities developed by real estate firms. The researchers found from their ranking analysis that the critical barriers were initial cost of building technology, lack of financing schemes to own such properties and inadequate incentives from government for users of this limited properties in Ghana. The study recommended that the global and national attention to the building deficit should be ratified in Ghana so that buildings can also contribute to achieving the sustainable environment for all.

Also, a study by Djokoto, Dadzie and Ohemeng-Ababio (2014) was conducted to examine the barriers to sustainable construction in the Ghanaian construction industry. Their study

examined these challenges from the consultant's perspectives on what being the challenges they face in the development and construction of infrastructure that are sustainable within the Ghanaian construction industry. The researchers adopted a survey method where questionnaires were randomly distributed to professionals in the construction industry. The obtained data was analyzed using ranking of the barriers via Relative Importance Index (RII) to sustainable construction. They found that there was lack of demand for sustainable building because the public awareness of such housing plan benefits is not known. They also found that there is lack of a clear strategy to promote real estate properties coupled with high initial cost if a firm intends to undertake such a project. Also, there was minimal government support to harness construction industry players enthusiasm to incorporate and expand their built infrastructure projects.

Further, challenges facing the real estate sector was espoused in the study by Teye, Teye and Asiedu (2015). They conducted a study adopting the systems theory to examine the interlinkages of factors that influence real estate products in Ghana. They found that the supply constraints include capital inadequacy of the banks, inability of the financial institutions to establish credit worthiness of potential borrowers and unfavourable macro-economic conditions which make investment in long-term loans unattractive to the banks. On the other hand, the Demand constraints include high house prices, high interest rates, unfavourable terms of loan repayments and low-income levels of a greater number of Ghanaians to own such facilities. These findings on challenges facing the real estate firms in Ghana was equally found by Owusu-Manu, Edwards, Badu, Donkor-Hyiaman and Love (2015). The researchers found real estate infrastructure financing in Ghana as a barrier. The researchers used a survey approach to rank constraints using the Relative Importance Index. A sample of 53 real estate developers within the Kumasi Metropolis of Ghana served as respondents. The finding reveals that real estate developers predominantly use debt financing including short-term bank loans, mortgages and hire purchase. These finance options are

limited by legislation, collateral demands, macroeconomic barriers and limited financial mobilization mechanism.

2.8 Section Conclusion

The section provided an overview of the real estate development in Ghana, the concept of risk and risk management in the context of the real estate development industry. The section includes an in-depth review of the literature for defining real estate development and the concept of risk within the existing knowledge pool. Analysis of empirical studies on the impact of risk management on real estate projects gets done as well. Going beyond just the theory, the researcher has also used the section to review the categories of risks found in real estate developments.

SECTION THREE
METHODOLOGY

3.1 Introduction

This section explains the overall scientific methodology that was used to research the study. It shows the research methods that were adopted to answer the research questions and the techniques and tools that were involved in using those methods. The main parts of this section explain the reasons for using particular ways for the primary data collection. These include the research design, the target population, study population, sample selection, the methods of data collection, data sources, data handling procedures and ethical issues adhered to and encountered throughout the data collection and analysis stage.

3.2 Research Design

According to de Vaus (2001), "the purpose of a research design is to guarantee that the data collected enables us to answer the initial question unambiguously as possible" (p. 9). The qualitative research approach was carefully selected for the study since the research objective is exploratory and descriptive. The picturesque nature of qualitative research enables the researcher to describe the experiences of the participants, which either sustain or confront the theoretical assumptions on which the study is based (Meyer, 2001). According to Denzin and Lincoln (2000), qualitative methods alone help to stress the social real estate development of reality. This process happens for the intimacy of the relationship between the researcher and a study. The qualitative research took the form of interviews and discussions with key informants to solicit scarcely documented information but relevant qualitative data.

3.2 Sources of Data

Data for this study was gathered mainly from two sources. These are primary data and secondary information sources (Creswell & Clark, 2017). According to Zikmund, Babin, Carr and Griffin (2010), primary data is first-hand information whiles secondary data are works of

people other than the research in question which has been documented (Kothari, 2004). Primary data source was mainly used in this study where important and exciting points and observed attitudes that were recorded in the researcher's field notes as well as responses to the interview guide which contributed to the richness and wholesomeness of data used for this study. This was supplemented by secondary data sources. Thus, the principal secondary literature consists of publications by the UN-Habitat, and GREDA provided useful information too. Also, local and other international journals related to real estate development got reviewed. Students' academic thesis and dissertations, newspaper publications, and speeches by notable persons in the field of real estate and risk management also got consulted. The Internet finally provided a variety source of information links about project risk management both in Ghana and international. The information from these two sources enrich the study.

3.3 Population

The population of the study refers to the whole number of individuals in a particular place or cluster of interest for a study (Hanlon & Larget, 2011). The study population included some selected real estate development organizations who are members of the Ghana Real Estate Development Agency. These are Regimmanuel Gray Limited, Devtraco Limited, Buena Vista Homes, NTHC Properties, John Bradbury Homes, Clifton Homes, Ghana Home Loans, Goldkey Properties Limited, Mobus Property Holding Limited, Appolonia Development Company Limited.

3.4 Sampling technique

The study utilized a multiple sampling technique to choose respondents for the study. Two schemes used in sampling respondents were purposive and convenient sampling. These are non-probability sampling methods which does not guarantee that each member will have an equal chance of being selected to part of the study (Creswell & Clark, 2017). This sampling

techniques afforded the researcher to target certain key individuals in their convenient times to obtain their experiences as players and internal stakeholders in the real estate development sector.

3.4 Sample size

A sample size of 12 respondents responded to the study. The sample size was enough to achieve the study objectives since it represented participants who could answer all the research questions posed in the interview. The sample size was also manageable in terms of the period allowed for the field research and the financial and time resources that were available to the researcher (Kothari, 2004). To select respondents who have enough and valuable information on the objectives of the study, the researcher selected two (2) key informants from each of the various organizations which formed the population of this study. The two made up of the Managing Director or Chief Executive Director and the Projects Manager or any technical professionals who is directly involved in the project development process.

3.5 Limitation

The study was limited to some selected member organizations of GREDA whose offices are in Accra and have some of their significant projects found. Also, the study is limited to privately own real estate development organizations.

3.6 Instrumentation

1) The instruments of the data collection were in the form of a face-to-face interview with crucial informant interview guides. An interview guide was developed based on the objectives and research questions. The guide had face validity and content validity by asking relevant questions and in a standardized structure so that information elicited would be related to the aims and objectives of the study. Example of items on the interview guide include; “How is risk handled during a project development - Use examples from experience, from your current or ongoing project?”, “How are risks

handled within the project (procedures/practices)?" etc. Also, the interview guide was developed under the supervision of the researcher's supervisor who is knowledgeable and expert in academic research and project consultancy research works.

Refer to the Appendix section for the full interview guide.

3.7 Data Gathering Procedure

Data for the qualitative part of the study got collected through in-depth interviews with the key informants. Each meeting lasted between 30mins to 45mins and allowed for crucial informants to freely express their views without any interruption. However, informants got the awareness when they veered off to issues not related to the study. The researcher conducted In-depth interviews since she is well vested with the objectives of the research and personally met the key informants. The respondents included the top-level person's in management roles like the Project Manager and Chief Executive Officer.

3.8 Data Handling

Data gathered from the in-depth interviews were transcribed according to the objectives of the study. It also got discussed to support the findings of this research using thematic analysis.

3.9 Ethical Consideration

Although ethics remain a branch of philosophy and theology mainly, it poses for the social scientist questions on how to proceed in reliable and responsible ways with research (Fouka & Mantzorou, 2011). The consideration of ethical issues in research is necessary to encourage participation and the willingness of respondents in providing data for the study (Resnik, 2011). It is also required to abide by the professional ethics of research. Singleton and Straits (2002), classify three areas of ethical issues in scientific research as "The Ethics of Data Collection and Analysis," "The Ethics of Responsibility to Society," and "The Ethics of the Treatment of Participants." The ethical issues with this study revolve mainly around the ethics of the treatment of participants. To consider this and to carry out the research in an

ethical manner, the basic APA ethical principles on researching with humans were adhered to as follows;

First, there was informed consent. Thus, before the interview, stakeholders gave voluntary informed consent before they participate in the study. So that no person would be coerced or even forced to take part in the study, participants were first introduced to an informed consent clause, before the interview was scheduled and done. Thus, participation in the research was entirely and voluntary for all participants. Further, the study ensured no harm to participants. This is a critical ethical consideration for the researcher to carefully design an interview guide to gradually introduce interviewees to questions without making them feel uncomfortable during or after the research. Moreover, Confidentiality and anonymity was upheld throughout the study. Thus, the names of respondents to questionnaires were not taken for ensuring their anonymity. The rest of personal information that was provided by participants were used only for the transcribing and interpretations in this study and has not or would not get shared with any third party outside the interest of this study.

3.9 Section Conclusion

This section has succinctly shown and described the qualitative design utilized for this study as well as the research methods employed for primary and secondary data collection. Participants for the study got selected through a careful sampling procedure and information source using the primary mode. Ethical considerations were extensively highlighted to ensure that the study was in line with professional requirement and guidelines. Section four (4) follows with the analysis and discussion of information collected in the study.

SECTION FOUR
DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Section Overview

In this analysis and discussion section, the findings of the study are presented. The basis of this analysis centers on the data collected in the field research, which is the empirical part of this study. Information processed from the field data is also presented in this section using graphical representations. The data analysis addresses the research questions and objectives of this study directly.

4.2 Socio-Demographic Information

The socio-demographic information about respondents in the field is necessary in order to show the overt observable characteristics of the study participants. A total of 12 accepted to do the interview session. The response rate was indeed high for a qualitative study. The overall high number of key respondents is a further indication of the high level of interest respondents took in the field interviews. Although it took a considerable time period for interviews to be granted due to the nature and how busy the target respondents are, direct follow up and constant reminders and the use of technology; in the form of conference call contributed to achieving the comparably high response rate.

4.2.1 Gender

Respondents profile is presented in Table 1.0 which illustrates the distribution of respondents' gender. The results show that there are only males. Females represent 0% while males represent 100%. This was not predetermined but by chance. Predominantly, the project development sector seems to be saturated with males.

Table 1.0: Gender of Respondents

Gender	Frequency (n=12)	Percentage (%)
Female	0	0
Male	12	100
Total	**12**	**100**

Source: Field Data (2019)

4.2.2 Job Positions

In the context of the study, a series of questions were formulated to establish and understand the role of the respondents in their respective organizations as well as during project development. The questions covered their what position they are in and their independent role they play. This characteristic is considered independent variable that is likely linked to influence most aspects of risk management and provide reasoning for certain action the respondents may take against certain risks.

Table 2.0: Job Positions of Respondents

Position	Frequency (n=12)	Percentage (%)
CEO	4	33.3
Project Manager	6	50.0
Supervisor	2	16.7

Source: Field Data (2019)

4.2.3 Tenure

Respondents were also asked to share their number in years of their professional experience within the real estate developement sector. This finding is presented in Table 3.0. As it can be observed from the Table 3.0, majority of the respondents have been in the real estate develoement sector for 5-10years and the least between 1-5years. This finding is not surprising as these individuals who were interviewed were CEOs, Project lead officers and owners of these real estate companies.

Table 3.0: Tenure of Respondents

Tenure	Frequency (n=12)	Percentage (%)
1-5years	3	25.0
5-10years	7	58.3
10years and above	2	16.7

Source: Field Data (2019)

RQ 1: How well is the concept of risk and risk management understood by key stakeholders in the real estate development sector?

4.3 Risk Definition

The interview results confirm that 100% of the respondents had a fair idea of what project risks were. Risk in the context of real estate development has been defined as a concept that is used to express the likelihood or probability of any of the initial assumptions made for project success not holding. While asking what a risk meant to them, the concept was characterized as an uncertainty, danger, unpredictable event, erratic occasion or threat, but also more descriptive as challenging the project objective and success. An intriguing perception was that everybody seen risk as something negative which ought to be avoided. The assertion though is 90% out of the respondents' associate risks as a negative term. This is in variance with what has been reported in the literature on risk where some risks are actually positive risks. The following are some quotations from respondents on their conceptualization of risk;

> *Risk is the likelihood or probability of any of the initial assumptions not holding. You've made assumptions round delivery, you've made assumptions round performance, you've made assumptions round demand, you've made assumptions round execution and if any of that shift a bit, you look at risks [CEO 2].*

Another respondent who is a Project lead officer also had this as definition of project risk as;

> *Risk of a project is an uncertain event or condition that, if it occurs, has an effect on at least one project objective [PM 1].*

4.4 Risks and Risk Management Perception

Risk Management is a structured method for overseeing risks and different dangers in day by day work. Indeed, this is of incredible importance in the construction business where projects get regularly presented to uncertainties and risks. According to the hypothesis, following all means of the risk management strategies facilitates achieving success with a project plan. For everybody who has been examining project development, the phrasing, risk management is recognized as a generally utilized concept and gets stressed in numerous courses. Be that as it may, when exploring the idea in practice, there are relatively few who comprehend the significance and content of risk management. Shockingly, specialists working in the project development sector are not in any case acquainted with the articulation "risk." Discoveries from the meetings demonstrated that the term risk got increasingly comprehended as an undesired occasion, issue, or danger that makes it difficult to achieve project objectives. A similar outcome was reached by Klemetti (2006), who reports that respondents considered risk as a negative concept. As suggested by Webb (2003), risk can be both positive and negative in its effect, which contradicts our respondents" supposition that risk can have just negative consequences. Numerous companies in the construction business will, in general, adjust risk management to only some degree. As was referenced in the hypothesis, associations can have various approaches concerning how and to what degree risks get mitigated. Those fundamental concepts were risk-unwilling, risk-common, and risk-searcher. Organizations within the construction industry do not work with risk management in such a structured way. Therefore, this generates an implication that there are some different methods for overseeing risks when it occurs. This action demonstrates the business is risk-normal and corresponds with the research done by Lyons and Skitmore (2004), who likewise observed this approach to be the most common inside the sector.

Another point is that most respondents were not comfortable neither with the concept of risk management nor any techniques inside the risk management methodologies. Comparable outcomes were acquired by Klemetti (2006) who found that for a considerable number of interviewees, risk processes and theoretical models were obscure. Be that as it may, a portion of the respondents in our investigation was utilizing techniques from the territory of risk management. The quotation below corroborates such assertion;

> *The spreadsheets we have allows us to do scenario analysis so you can do sensitivity analysis, so you can say that if the currency depreciates from 5 to 6, what happens to your pricing, if the project takes another 6months to deliver, what happens to your funding assumption, so that's easy. A method which quantifies quantitative risks would be useful because a lot f these risks are not quantifiable. For us, a lot of these risks are quantifiable as the spreadsheets pretty much tell you all of that [CEO 3].*

It is alluding to some regular practices clarified by the interviewees. Also, actions taken against potential issues could be classified as risk management systems, even though the actors didn't clearly state as risk management system. For instance, one of the respondents (supervisor) stated;

> *...we discussed assessing risks from an economic perspective to choose the correct way [S 2].*

The equivalence to this is the Decision Tree Analysis where a few risks are investigated to guarantee that the proper method for working gets selected. Another model utilized was the method for dealing with risks inside one of the respondents' associations. In that circumstance, critical risks were elected and took care of quickly; this wiped out littler risks and focus on the most compromising ones. Typically, this method for investigating risks according to the qualitative strategy is called Risk Urgency Analysis as stated by one of the respondents;

> *...I prioritize them based on the impact the risk will have on the project [PM 4].*

Those models demonstrate that actors in the business handle risks in their regular activity. Also, all respondents declared that they could begin actualizing techniques if just they had more data about them and a guide on the best way to utilize them. This finding is consistent with research done by Lyons and Skitmore (2004) who found a lack of data as the second-highest obstacle avoiding the usage of risk management. In the referenced research, the most concerning issue distinguished were lack of time, which was likewise referenced by one respondent in this research. One more finding from the meetings demonstrates separation between how risks are overseen by people and in a group. People and their associations regularly use checklists and different manuals while gatherings use discussion as the most common technique to distinguish risks and issues as highlighted by the quotation below;

> *Potential risks are identified by the project team and meditation procedures agreed before the project implementation [S 1].*

This announcement is in part upheld by Klemetti (2006) who discovered gathering all members during project design and execution as the most critical approach to recognize and oversee risks.

RQ 2: What are the major adversities faced by the real estate developments in Ghana?

4.5 Challenges faced by real estate firms

Just like other sectors and industry facing challenges including crisis within the banking sector (BoG, 2019), skills gap reported by employers (GEA, 2017), financial challenges faced by some small and medium scale enterprises (Abor & Quartey, 2010; Ocloo, Akaba, & Worwui-Brown, 2014) among others. The real estate development sector is also coupled with some challenges which threatens the growth of the sector if not attended to. From the interviews conducted with stakeholders, the findings on challenges are themed into three categories. These are financial, technical capacity and sustained demand. The following enumerates each of the identified adversity.

4.5.1 Financial Challenges

Financial resource is one of the main tools for promoting effective operations of the real estate enterprises (Chan et al., 2018; Owusu-Manu et al., 2015). The financial requirement to undertake these capital projects such as residential or commercial facilities is huge. Contrary, limited financial resources is one of the main sources of problems faced by organizations in implementing and practicalizing the ideal which is mostly inscribed in their organizational strategy to provide affordable products to customers. Even when the financial resources are to be made available by finance houses or banks, the interest rate is relatively high which makes securing long term finance a challenge for the real estate business. This finding was affirmed by respondents by their comments regarding raising adequate finance a problem in the following quotations:

> *Eeerm, though the organization is willing to expand its operations, however there are financial constraint that hinders its ability to build more to meet up the housing deficit [PM-1].*

This was supported by an assertion from a CEO (CEO 2) who observed that raising capital for long term capital projects was difficult considering the cost of raising such funds.

> *…you know raising funds in this our sector is very difficult to do. Even when you have gotten a financial facility to execute a contract by say the government, you get expensive financial facility looking at the interest rate per year and requirements needed to obtain such funding. This really is a challenge most firms within the space are entangled with considering currently the financial challenges too which is faced by the finance houses [CEO, 2].*

4.5.2 Technical capacity

Another major challenge found that affect the effectiveness of real estate business was technical deficit in their human capital at their disposal. These challenge of inadequate skilled labour with the right knowledge, skills, ability and other traits was reported by respondents

and is in line with studies within the real estate sector that found that there are inadequate skilled personnel (Ahadzie & Amoa-Mensah, 2010; Armstrong, 2006; Noe et al., 2017). This challenge is illustrated in the quotations below.

> *…the sector is advancing with frequent changes in models, designs, materials to make a property appealing and valuable for clients. This means we must have the right people with the requisite skill set to make such requirements from clients materialized. However, sometimes we have to hire expatriates to do some of these things which is expensive (CEO, 1).*

From the assertion, it shows that some works within the real estate industry are outsourced to other multinational firms or foreigners to operate as there may be lack or limited personnel locally to ensure completion of such task. This is a limitation as it increases project cost of these facilities making properties relatively expensive on the market.

Another quotation from a respondent on the management and effective identification of risk was highlighted by a respondent below;

> *...sometimes I don't know what goes into the decision making before investment commitments are made by management. Some of the development undertaken are not selling and I wonder if the firm have the personnel that does serious analytics on the opportunities and threat before we embark on a development. Judging from what I have experience here, we don't have those with the knowledge and skills that does that to make project siting and sales high [PM, 3].*

4.5.3 Sustained demand

One other challenge reported by respondents was the minimal sustained demand for real estate products offered to the general public. The increase in appetite for buildings, plots and other infrastructure which soared high within the year 2012-2014 (Ministry of Works and Housing, 2015) highly driven by government projects with affordable housing and the general crave by citizens to own apartments has dwindled. Respondents reported that,

demand and sales of real estate products have slowed, and it is a challenge they are facing. A respondent who is a manager (CEO 1) in one of the real estate firm said:

> *it is now difficult to sell these apartments we have; a number of apartments are available but are unoccupied by tenants yet. The demand is now slow, and we are using all other approaches to get people to patronize these properties [CEO, 1].*

From the quotations, it is evident that, there are real estate properties available and confirms anecdotal observations and media report that real estate apartments and commercial spaces have very little occupancy rate. This can be partially be attributed to the high price tags placed on these facilities as well as weak macroeconomic development as highlighted by Owusu-Manu et al. (2015) and thus accounting for the slow demand from people who needs such buildings to occupy but may not be able to afford.

Similarly, the reduced demand for real estate products has led to a skewed attention to residential facilities development. On the question of what current project is being embarked on by respondents, 92% of them confirmed that their organizations are currently undertaking residential properties and buildings. Examples include Apolonia City, Bijoux Homes, Devtraco Plus and many others. Comparably, the various organizations are more inclined to building residential properties than commercial spaces because they can affirm that residential real estate developments tend to be more hands on and have higher demand than commercial. Also, they side with the conception that rural-urban drift has brought a high tow on properties as humankind is geared towards getting a place of abode. A project manager (PM 2) for one of the large indigenous real estate firm had this to say;

> *It is sad that we get little demand from clients in developing commercial spaces which are relevant for human habitat, most of our demands are into residential buildings which is a challenge if we want to build a holistic environment [PM, 2].*

RQ3: What effects can those identified risks have on time, cost and quality, in projects?

There was greater consensus that the enumerated challenges had effect on time, cost and quality of projects. The Table 2 below shows the frequency and percentage in agree to the effect that financial constraints, skills gap and demand has on cost, time and quality of real estate properties

Table 4.0: Frequency Table of the effect of real estate challenges has on time, cost and quality.

Challenges	**Effect on Time**	**Cost**	**Quality**
Financial constraints	Yes (100%)	Yes (91%)	Yes (100%)
Skill gap	Yes (100%)	Yes (83%)	Yes (83%)
Demand	Yes (91%)	Yes (75%)	No (67%)

Source: Fieldwork (2019)

From Table 4.0, it could be observed that the challenges identified had effect on time, cost and quality of projects. However, this deferred on the percentage in agreement from the twelve sampled respondents. On financial constraints, all respondents agreed in unison that it has effect on time, cost and quality of real estate project. In relation to skill gap, all respondents agreed that it has effect on timely delivery of projects, ten respondents translating to 83% agreed that it has effect on cost and quality of project. The least perceived challenge on quality and cost was demand from people for real estate properties. Majority of respondents reported that market demand has a positive effect on time delivery as well as cost of project as economies of scale is enjoyed by the real estate companies which is translated to relative lower project cost. However, they reported that the market demand does not have influence on quality as they make sure they provide facilities that meet required standards.

4.6 Project Management Process

This section discussed how risk management process is utilized in practice within the sampled organizations used for this study. To achieve that, there is a method of indicating how the project management process gets used. It is also useful to isolate the process into the distinctive primary parts such as identification, evaluation, and response.

4.6.1 Identification

Among respondents, experience and discussions were the most commonly used techniques to identify potential risks. This finding corresponds with the research by Lyons and Skitmore (2004) that showed brainstorming and case-based approach as the most prevalent risk identification tools. No time in the project got reserved for risk management (RM), and respondents declared that potential risks got handled at the time of their occurrence. In order words, the members of the project team were not identifying risk in a structured way, as described in the literature. They believed that their time was used more efficiently when they worked on the actual project instead of searching for problems. Only to a small extent were risks in the project identified by experience.

Moreover, some risks which are characteristic for a construction project can be gathered in the form of a checklist and get used in future projects. The other finding from the interviews was that the most common way of risk identification was the discussion. This tool, which works alongside brainstorming and using previous experience, was used by the project team at the kick-off meeting, where one of the activities was to identify potential threats to the project. At the meeting, all the actors taking part in the initial stage of the project were present. Even though RM did not get used in the investigated project, such a meeting could receive classification as a part of RMP. By organizing such meetings, parties got a chance to discuss and identify potential problems. This action is consistent with Westland"s (2006) theory that all the stakeholders should contribute to drawing up a risk plan. And the plan is to make sure that every potential risk gets identified. The meeting organized at the beginning of

the planning phase is also consistent with Lyons and Skitmore (2004) research. His results proved that planning and execution are those two phases where RM gets most widely used. Another finding from the interviews shows differentiation between how risks are managed by individuals and in a team. Individuals and their organizations most often use checklists and other manuals while groups use discussion as the most common technique to identify risks and problems. This statement is partially supported by Klemetti (2006) who found group meetings and conferences as the most appropriate way to identify and manage risks.

4.6.2 Assessment

The best contrasts can get found between the theory and how the business functions. As recently expressed, the respondents were curious about any strategy used to break down potential risks. In general, relatively few specialists in the project development sector who work with private projects utilize these structured methods. Lyons and Skitmore (2004) found that intuition, judgment, and experience are the instruments frequently used in risk investigation. Meanwhile, structured procedures like Monte Carlo or risk sway evaluation are utilized distinctly to some small degree. One reason for not utilizing formal methods, as indicated by respondents was a restricted spending plan. One interviewee clarified that most private projects had restricted overall revenues; this anticipates significant changes or executions of new arrangements. Besides, the general absence of learning inside the territory of risk management can result from constrained assets, for example, time or cash. This announcement relates with recently cited research done by Lyons and Skitmore (2004), which shows an absence of time as the factor which keeps associations from executing risk management.

Besides, the industry isn't happy to change. Just a portion of the organizations is pleased to implement RMP in their activity if just a substantial result is allowed. As demonstrated by Lyons and Skitmore (2004), subjective methodology is the most well-known kind of system to break down risks. Simultaneously, it is the most straightforward device to evaluate the

risks, since it just incorporates the likelihood and effect appraisal. There is no need for doing convoluted counts which require for example PC programming. The quantitative methods are considerably more asset devouring and require gifted workforce and specialized hardware. That is the reason it is just medium and enormous organizations which can stand to assign more assets for these methods (Lyons & Skitmore, 2004).

Since none of the respondents knew about risk management strategies, a likelihood and effect strategy were picked and performed as an online review to perceive how risk evaluation functions practically speaking. Because of the subsequent survey, risks with the most significant effect on project destinations got recognized. Modest arrangements were the danger which was found to have the most excellent effect on schedule. Once more, shoddy methods and not finding the correct temporary worker were those risks with the most significant impact on expense and quality individually.

Interestingly, various outcomes got derived from research done by Zou et al. (2006), who discovered a tight project marked as the risk with the best effect on every one of the three project destinations. Such an inconsistency can be because of various research methods. In this ebb and flow research, respondents were approached to recognize potential risks themselves while Zou et al. (2006) furnished respondents with a rundown of 88 potential dangers in a development project. Further, data were prepared similarly by utilizing likelihood and effect grids. The outcomes are one-sided additionally by kind of callings held by respondents. Notwithstanding the type of risks which got recognized as the most unsafe ones, risks which scored the most and had the most elevated likelihood of an event, were those to which a reaction ought to be connected to limit its negative effect on the project objective (PMI, 2004).

4.6.3 Response

In theory, four of the most well-known actions to be taken against potential identified risks got clarified. As deduced in the interviews conducted, most experts in the real estate

development sector have no information of any type(s) of response. Just a couple of respondents gave answers which could be deciphered as transferring risks and by this, mitigating the problem. Be that as it may, discussion and checklist were the primary tools to support the actions. There is additionally an absence of information within this area. Furthermore, in light of the outcomes from the contextual analysis where risks got identified by the experts, mitigation was the action most often preferred. A significant number of respondents agreed that all risks are manageable, and therefore, a reduction is the best alternative.

4.7 Project Risks Management

The findings from the interviews demonstrate that respondents shared different opinions of how risks were managed within the project. Although everyone agreed that no structured way of working with risk was established. It was the responsibility of the individual organization to manage their own risks identified in the project as stated by one of the respondents.

> *...there's a dedicated projects team and it's their job to constantly monitor and make sure that risk is mitigated in this organization [PM 2].*

However, this did not mean that risk was ignored. An activity which gave a chance to exchange experience and raise potential problems was a project kick-off, an introduction to the project involving all participants. At that meeting, all actors involved in the initial stage of the project discuss issues related to the project. Furthermore, the respondents stated that they use their initiatives and lessons learnt from previous projects to tackle risks they face during current and ongoing projects.

A more specific approach some of the respondents use to handle risk is modeling in 3-dimensonal drawing using various software's before the actual project commences. Notable amongst these softwares are Maya, 3DS, Blender and C4D. These tools are for modeling and

rendering. These 3D renderings, according to the 75% (9) respondents who affirmed that their organizations use such software models stated that it helped to avoid problems with design and let the final product be seen in an early project stage in order to pre-conceive if there will be any risk to be mitigated. In addition, any potential problems which emerge in the design process with help of 3D modeling could be handled in advance.

4.8 The Vision of “0 errors” in Projects

All respondents did not concur that there can be a project with '0 errors', simultaneously they accepted that conveying supreme '0 blunders' project in the project advancement part was impractical. In this manner, everybody made their very own meaning of it. Consequently, the optimal approach from most respondents was to maintain a strategic distance from any greater imperfections in the project.

To maintain a strategic distance from the bigger mistakes, it could be accomplished by nearer participation in the project group and helping one another. Also, familiarity with potential dangers and being dynamic conveyed a project with minimal mistakes near zero.

4.9 Section Conclusion

The conducted interviews uncovered how Risk Management (RM) is utilized by and how experts in the project know about this idea. This part shows results obtained from the exploration and relations between risk practices connected by the overseeing supervisors, project managers and Chief Executive Officers during project advancement. The respondents spoke to each period of the project life cycle and their jobs changed from dynamic to detached, contingent upon the project organize. The most emphasized message from these experts was being dynamic in the whole project stages. For this situation, being latent, intending to offer help or supervision to screen and control the project advance was key.

SECTION FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Section Overview

Following from the investigation and discourses of the information gathered for this study in section four, section five presents the summary, conclusion, and recommendation of the research in light of answering the overarching question, 'What is the value of risk management for the private real estate development companies under GREDA?'

5.2 Summary of Findings

This study sought to answer the overarching exploration question – 'What is the value of Risk Management for the private real estate development companies in Accra, Ghana?'

The specific objectives for the study were:

i. Understand how risks and risk management is perceived by professionals in the real estate development sector of Accra, Ghana.
ii. To examine the major challenges faced by the real estate development companies in Accra, Ghana.
iii. Understand how risk management process is utilized in practice in the selected real estate companies under GREDA.
iv. Know and understand the value of risk management for private real estate project development in Accra, Ghana.

In order to achieve the above stated objectives, the qualitative methodology approach was used with structured interview questions for data collection. The findings of the study were in three parts corresponding to the research objectives. First, the study found that professionals in the field only knows risk to be a negative term even though in theory it can have two dimensions. Also, risk management has become a popular topic amongst professionals in the project development field as a means of minimizing risks in each project to be undertaken.

Secondly, each respondent has a basic knowledge about risks associated to a project and how to handle them though none of them follow any structured risk management processes. Professionals in the real estate development sector are utilizing strategies portrayed in the writing concerning risk management, yet don't know about it. Risks are being managed every day in the sector, but not in such a structured way as the literature depicts.

Thirdly, there is willingness among respondents to begin utilizing risk management processes since each respondent agrees that the value of risk management in project development can never be underemphasized.

5.3 Conclusion

Evidence from the study shows that there is little knowledge deficit among experts directly involved in real estate development of Accra, Ghana, concerning risk management. It is found that risk management is being highly practiced either formally or informally in the sector. Additionally, the research shows slight decrease in formal risk management practice. From this research it is found that mostly the professionals are aware about the risk management and are practising it with their experience, knowledge to some extent but not in full package. Generally, they are found to be focused on risk of scheduled time and cost. Very less response, among the received, were found confident that their organisation is following the risk management in formal ways. All participants accepted that risk management can help bring uncertainties of projects to near zero. Besides, risk management gives the likelihood to identify which of the recognized risks has the most significant effect on time, cost, and quality. The exploration demonstrated that the most widely recognized way of dealing with risks was mitigation. Also, it got shown that the outcomes from likelihood and effect strategy may vary among projects because each project is unique. Risk identification and risk assessment alongside risk response comprise effective risk management. The conclusion can be drawn that there is really high impact of risk management practise in the success of project. Hence it can be concluded that

success of construction project also relies on the methods and way of practising the risk management in the projects.

5.4 Recommendation

The findings and proof exhibited in this investigation neglect to dismiss the invalid speculation that "there is no value in Risk Management intending to the vulnerabilities in the private real estate development under GREDA."

The various organizations under the association should prepare the risk management plan for their projects and should provide appropriate level of control regarding the risks that it faces .Firstly, the real estate organizations should prepare the risk management plan for their projects and should provide appropriate level of control regarding the risks that it faces. Second, training and retraining of the project team towards the risk and its management to make it be a priority in order to arrive at successful projects and advance the business of the firm. Also, a straightforward risk management manual could be created, including essential hypothetical information just as prepared to-utilize direction for one of the risk management methods.

5.5 Limitations and Future Directions

This study just like any other studies was not without limitations. First, this study focused on just some of the private real estate organizations registered under GREDA. Therefore, the findings from this study cannot be generalised to the entire real estate development sector of Accra. Also, the research study was limited to only private real estate organizations under GREDA whose projects are mainly in Accra. Thus, the collected information does not give the holistic overview of risk management in the project development of Ghana.

Based on the above limitations, the following recommendations are made for future research:

1) Future studies should have a larger sample size and wider geographical coverage to increase the generalization of the findings.

2) Future studies should examine the relationship between project managers and teams in attaining project success. Such findings will provide useful insights.

3) Future studies can consider replicating this study from the public real estate development sector.

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APPENDIX

A: Qualitative Research Questionnaire

My name is Anita Larbi and I am student with the University of Ghana Business School at University of Ghana. I am conducting a research and writing my master project on the topic "The value of risk management for private real estate development companies under GREDA". This is solely an academic research in partial fulfilment of the requirements for the degree of a Master of Management and Administration at the University of Ghana. A noteworthy piece of this research is to get information from persons who are legitimately engaged with the real estate development processes, or who are straightforwardly associated with working with parts of project development. The interview will last for 30 minutes and the process as well as the responses that you provide will be treated confidential and used for only the purpose of the stated academic purpose. Could we schedule a meeting time for the interview?

Introduction:

a) Name:

b) Kindly state the company you work with and your position

2) How long have you been working with your organization?

3) What role do you play during project development?

4) What current project is your organization undertaking?

5) Are you involved in all the phases of the project? Yes or No
If no, what phase are you actively involved in?

6) Kindly define "risk" of a project in your own terms?

7) Are you acquainted with the idea of risk management and the Risk Management Processes? Yes or No

The inquiries will follow the Risk Management Process; Identification, Assessment and response).

Identification:

8) As an organization, how do you identify risks in the project development?

9) Regarding the phase(s) you take part in and role you have in the project, which are the main risks/uncertainties are associated to your function (max. 3)?

10) What effects can those identified risks have on time, cost and quality, in the project?

Risk assessment:

11) How are risks handled within the project (procedures/practices)?

11) Assuming that you have identified a number of risks in the project, how would you prioritize them?

12) Would it differ from other projects you work/have worked on?

13) Do you use any methods to analyze risks? If yes, what methods?

13b) If no, what are the reasons of not using any methods?

14) Does the application of structured methods help improve overall project performance?

Risk Response

15) What action do you usually take against risks?

16) What move would you make to the distinguished risks/uncertainties in the project? (Question 8)?

Handling Risk in project development:

17) How is risk handled during a project development - Use examples from experience, from your current or ongoing project?

18) How do you think risk management ought to be composed in a project development?

Conclusion:

19a) In your opinion, is risk management essential in project development? Yes/ No

19b) If yes, what is the value of Risk Management during project development?

20) Do you envisage “0 errors” project?

THANK YOU.