



FACULTY OF BUSINESS AND ACCOUNTING

GRADUATE STUDIES DEPARTMENT OF BUSINESS AND ACCOUNTING (MBA)

**CAUSES OF PROJECT FAILURE IN BOTSWANA PUBLIC PROJECTS:
CONTRACTORS' PERSPECTIVE**

By

NAME: THANDI JOB

ID NO. 1817408

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Supervisor Name: Professor Olumide Jaiyeoba

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STATEMENT OF ORIGINALITY

I, Thandi Job, certify that this research is my original work and was carried out while I was a student at Botho University as partial fulfillment of my degree of Masters in Business Administration (MBA). Contents of this study has not been previously submitted to any other institution of higher education towards any qualification. I further declare that all sources cited and quoted in this dissertation are indicated and acknowledged by a means of reference list. All the assistants received in preparing this research has been acknowledged. The research further represent my own way of thinking.

Signature: -----

Candidate's Name: THANDI JOB

Date: 30/11/2019

DEDICATION

I dedicate this work firstly to myself, I couldn't have done it without determination and dedication.

Secondly I dedicate this project to my mother Mosadinyana Sethatho, she was my source of inspiration and strength throughout this program and she believed in me.

I further dedicate this work to my friends and family who supported me throughout the whole process. Their words of encouragement pushed me to see this to the end. They encouraged me when I seem to be failing. I will always appreciate all that they did for me.

Thanking you all.

Yours sincerely

Thandi Job

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Secondly I have to acknowledge the contractors who were able to participate in this study as my sample population. They gave up their precious time to answer my questionnaire and their feedback was marvelous. After all their participation resulted in the achievement of this work.

I give special thanks to Lorato Machongo who agreed to be my editor in this dissertation.

I am equally grateful to all those with whom I had the opportunity to work with during this project.

May God bless you.

ABBREVIATIONS AND ACRONYMS

AFDB	AFRICAN FUND DEVELOPMENT BANK
BEC	BOTSWANA EXAMINATION COUNCIL
BNPC	BOTSWANA NATIONAL PRODUCTIVITY CENTRE
BOCCIM	BOTSWANA CONFEDERATION OF COMMERCE, INDUSTRY AND MANPOWER
BPC	BOTSWANA POWER COOPORATION
DBES	DEPARMENT OF BUILDING AND ENGINEERING SERVICES
FTA	FAULT TREE ANALYSIS
ESP	ECONOMIC STIMULUS PROGRAMME
IS	INFORMATION SYSTEMS
ICT	INFORMATION AND COMMUNICATION TECHNOLOGY
LITS	LIVESTOCK INFORMATION TECHNOLOGY SYSTEM
LWA	LINGUISTIC WEIGHTED AVERAGE
NSO	NATIONAL STARTEGIC OFFICE
OP	OFFICE OF THE PRESIDENT
PM	PROJECT MANAGEMENT
PMBOK	PROJECT MANAGEMENT BOOK OF KNOWLEDGE
PPADB	PUBLIC PROCUREMENT AND ASSET DISPOSAL BOARD
NDP	NATIONAL DEVELOPMENT PLAN
RII	RELATIVE IMPORTANCE INDEX
SADC	SOUTHREN AFRICAN DEVELOPMENT COMMUNITY
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

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DEFINITIONS OF TERMS

Contractors: are defined as an instrument through which organizations meet their aims of development.

Project: a series of related task that must be carried out using company resources.

Project failure: a project completed beyond due date, there are budget overruns and does not meet stakeholders' expectations.

Successful project: a project delivered within deadlines, budgets and its functionality is in line with the planned objective.

ABSTRACT

Projects have important contributions in the development of the economic landscape of any country. This research study was to identify factors causing project failure in the case of Botswana from the contractors' perspective. The quantitative survey conducted highlighted how the contractors agreed in ranking these causes. The questionnaire that was used to collect data was subdivided into three sections. The questionnaire was emailed to contractors after gathering their information from the PPADB website. The field survey conducted included 47 contractors of different categories who responded to the questionnaire.

The analysis result indicated that contractors in Botswana identified causes of project failure as: corruption, late payment of project funds, procurement delays, poor work ethics, poor risk management, budget overruns, and lack of resources, poor planning, poor expertise, poor project management and poor communication. When ranking these causes respondents ranked lack of resources as having the strongest effect in causing project failure, followed by poor project management, budget overruns was given the third position followed by poor planning and time overruns. Poor expertise was ranked sixth position followed by poor risk management and project scope. Disputes and poor communication were ranked as having the least effect in causing project failure. Recommendations included among others equipping contractors with skills to run projects, strict monitoring of projects by all stakeholders involved to ensure that personnel with relevant skills are engaged in doing projects and changing procurement procedures of awarding projects to the lowest bidder.

Keywords: project failure, contractors, Botswana, public projects.

CHAPTER 1: INTRODUCTION

1.0 BACKGROUD OF THE STUDY

The main aim of the study was to identify factors that contribute to project failure in Botswana public sector according to contractors and make appropriate recommendations to improve project success in the country. The study used a quantitative survey method in analyzing factors causing project failure. Damoah, Akwei and Mouzughi (2013) pointed out that public projects have a relative impact on citizens and national developments of a country as a whole therefore it is important to investigate factors causing project failures so as to reduce them. According to Baker (2000) a project is considered to be a set of activities that has to be completed using company resources. A project is normally done to meet the profits and goals of the stakeholders and it influences the growth of any organization; however more than 80% of projects carried out fail to meet their objectives.

Taherdoost and Keshavarzsaleh (2013) argued that failed projects appear to be more significant on public projects than private ones. According to Wasim and Khalid (2018) it is not fair to blame contractors as the only partners being responsible for the delays, failures and abandonments of projects. At times most projects are disrupted because of cash flow and disputes in awarding of tenders. Some projects have failed due to improper procurement practices, others due to inadequate budgeting while others failed because of delays in the project schedule. All these factors are not the sole responsibilities of the contractors carrying out the project. Projects are crucial in any country or organization as they indicate development. Damoah et al (2013) argued that doing projects normally require a large capital from government as such there is need for good management practices to deliver value for money in projects.

According to Kaur and Sengupta (2013) project consists of three stages being start, execution and assessment. Any mistake done at any stage can cause project failure. Many countries across the world have experienced project failure. Project failure can destroy the economic balance of a country. Ruuska and Teigland (2009) highlighted that project failure is high in developing countries because they engage mainly in projects such as building of roads, dams, industries and e-government services. Project Management Body of Knowledge (PMBOK) emphasized that project failure or success is dependable on three key factors which are; time, cost and scope. These three factors are baselines to measure the performance of a project, moving away from any of these three factors can affect the overall performance of a project. A successful project means that certain expectations of stakeholders were met, whether user department, contractor or planner. A project which does not meet the expectations of the project initiators is considered as a failed project. Kaur and Sengupta (2013) in their research argued that most of projects fail due to selection of inappropriate project management methods. Whitney and Daniel (2013) opined that more than 80% of projects failure is due to poor project management. The cause of failure ranges from abandonment, cost and schedule deviation to stakeholder dissatisfaction. Ikediashi, Ogunlana and Alotaibi (2014) cited other reasons for project failure as unfamiliarity to project scope and complexity of the project.

Developmental projects are at the center of development of a country as such failure of any project may have devastating results on the nation as a whole. Botswana government has made initiatives to ensure that developmental projects are implemented. The National Development Plans (NDP) are intentions to carry out programs and strategies to develop the economy of the country. Furthermore the government realizes that it is crucial to invest in developmental projects as such a significant amount of funds from the budget has been allocated to the developmental budget in recent years. For 2015/16 the national development budget was at P12.93 billion, in 2016/17 it was proposed to be P14.82 billion, in 2017/18 it was at 16.52 billion while in the national budget speech of 2018/19 development budget was allocated P19.31 billion. These figures indicate that the government invest so much funds into projects with the hope that the country will develop. Every Ministry is given its share of the developmental budget, unfortunately the country has a bad history of poor project implementation. Maruapula (2008) argued that despite prudent economic strides by the Botswana government the country has experienced poor delivery of projects compared with the funding provided.

The Department of Building and Engineering Services (DBES) was established in order to ensure that developmental projects in central government departments are being implemented. During the financial year 2016/17 there was the adoption of the Economic Stimulus Programme (ESP) which was aimed at boosting the economic growth by pushing backlog eradication of projects. The other initiative that indicated that the government of Botswana was interested in developmental projects was the Vision 2016, which was a national manifesto which aimed at implementation of developmental projects. The vision 2016 pillar of prosperous, productive and innovative nation was set to improve the economic challenge that was brought by failure to implement projects and policies. It called on for strict measures on monitoring and evaluation of projects throughout the public sector. Yet again there is the Vision 2036 in which the first pillar emphasize infrastructural development as one of the activities that can change Botswana into a highly-income country.

Another initiative that the government of Botswana has put in place to show it was concerned with project failure was setting up of the National Strategy Office (NSO) in the Office of the President (OP). The unit is responsible for overseeing policy and project implementation of all major government projects. All these are an indication that the government of Botswana consider developmental projects as crucial therefore good management practices cannot be ignored because any type of failure destroys the public sector and shareholders value.

In the field of project management, project failure is defined as a project which does not meet the needs of the project; does not satisfy the end user and it is not finished within the allowed time frame and project budget. Failed project is the one that is completed way beyond the due date, there are budget overruns and the outcomes does not satisfy stakeholders' expectations. A successful project on the other hand is the one that is

delivered within deadlines, budgets and its functionality is in line with the planned objectives and it also meets the required expectations of the users. According to Ogunmola (2015) a successful project is the one that meet the three legs of constraint specification, cost and time. Project failure causes governments and companies to lose a lot of money. According to Hamzah, Khoiry, Arshad, Badaruzzaman and Tamil (2012) project failure is unavoidable in developing countries.

Botswana has had several cases of failed projects which were finished way after the expected time; causing the government to lose several billions of pula. The upgrading of Gaborone International Airport, Francistown Stadium and Lobatse Sports complex are some of the projects that experienced failure; these projects were intended for the country to benefit from the 2010 world cup in South Africa but they got delayed by 4-5 years. In the national budget speech for 2014, Minister of Finance and Development Planning Hon.Mathambo lamented that there was poor project implementation by some private contractors. The BOCCIM president Leta Mosienyane when addressing business community indicated that failed projects tarnish Botswana's name and investors may not come to Botswana because of this. (Mmegi, 2014) Moreover there had been several projects that have not seen the light of the day after their inception. The BPC Lesedi project is one such project; the project intended to disseminate photovoltaic electrification throughout Botswana and was only piloted and never got implemented. MALEPA System which was a web based examination programme intended to release examination results; BEC ended up spending P40 million instead of P17 million that was initially tendered for. In the Ministry of Agriculture and Food Security; Livestock Information Technology System (LITS) failed as the contractor hired to inset bolus did not deliver the required service. Similarly in the Ministry of Basic Education; the government spent billions in building a school in Letlhakane which was later abandoned because it was built on dolerite (powdery stone).There is Morupule B project which failed because it was given to a contractor with no experience in circulating fluidized bed, and ended up costing the government \$136 million. (Mmegi, 2016).These reports indicate that project failure is high in Botswana. In view of all these it is imperative that the causes of project failures are interrogated in order to understand the way government handles project management.

1.1 STATEMENT OF THE PROBLEM

Several researches have been conducted in order to find out the reasons for failure in projects and have provided various solutions to avoid project failure, still organizations continue to experience project failure. It is imperative that these causes are correctly identified and appropriate solutions are put in place to mitigate these causes. Botswana just like other developing economies is faced with the problem of project failure. Sefhemo (2016) argued that even though the government kick start several projects to boost the development of the country still most projects fail to reach successful completion. The nature of this research study comes from the need to overcome factors causing project failure and avoiding their impact. The research study was to identify factors that have direct

contributions to project failure in the case of Botswana and provide recommendations to consider when doing project management.

1.2 THE RESEARCH OBJECTIVES

It is crucial to develop the research objectives of a particular study so as to meet the research aim. When writing research objectives, action verbs that can be measured should be used. Through the selection of verbs used, the research objectives suggest the way in which the researcher plans to study the question and the level of evidence to be obtained through the research findings.

The main objective of this study was to identify factors causing projects to fail in the public sector according to contractors. The objectives of this research study have been formulated as:

1. Identify factors that cause project failure in Botswana government according to contractors.
2. Rank factors responsible for project failure according to contractors' viewpoint in Botswana.
3. Determine the degree of agreement on the ranking of project failure according to contractors in Botswana.

1.3 THE RESEARCH HYPOTHESIS

A research hypothesis basically depicts the result that the researcher expects to find; it is an educated guess about the outcome of the research being undertaken. The two types of hypothesis are the research hypothesis and the null hypothesis. Research hypothesis is the one that the researcher believes will be supported by data while a null hypothesis is a statistical hypothesis that states that there is no true difference only random error difference.

In this study the variables used were factors that cause projects to fail in Botswana. The interesting question asked was which of these causes impact on project failure the most. Contractors gave various answers as to which factors affect project failure the most. There was a possibility of contractors agreeing or not agreeing on the most influential factor; so this means that the hypothesis tested were:

H₀-(The Null hypothesis) that there was disagreement among contractors on the ranking of causes of project failure in Botswana.

H₁-(Alternative) that there was agreement among contractors on the ranking of causes of project failure in Botswana.

1.5 OVERVIEW OF THE METHOD OF INVESTIGATION

According to Leedy and Ormnod (2001) methodology is the approach taken in doing the research. The three known research methodologies are: quantitative, qualitative and mixed-methods. Cresswell (2014) argued that quantitative studies assume that social reality is external to the knower and knowledge is objective and tangible. This kind of research usually uses

measurements, experiment and statistical analysis in answering a research question. Data collected through this method is stated in numbers and it goes through statistical treatment so as to agree or disagree with a knowledge claim. Leedy and Ormnod (2001) noted that quantitative research is classified into descriptive, experimental and causal comparative. In a descriptive research approach; the researcher examines the situation in its current state, and this involves observing attributes of some phenomenon regularly or exploring the relationship between two or more variables. Quantitative method is very effective in answering the ‘what’ or ‘how’ of a situation.

This research study used a descriptive quantitative survey method and for the purpose of collecting data from respondents a semi-structured questionnaire was used. Population sample was on contractors who have registered with the PPADB and have done some projects during the National Development Plan 10 (NDP 10). This meant contacting PPADB and relevant ministries to get a list of contractors to answer the questionnaire. The contractors were contacted and sent the questionnaire. Interviewees that were selected were from all different categories and had experience of doing projects.

1.6 THE SIGNIFICANCE OF THE STUDY

It was anticipated that the results of this research study would be beneficial to all those doing project implementation. The research findings are expected to assist government departments in improving effectiveness of project delivery. Moreover findings contributed positively by providing recommendations on correct strategies to put in place in order to carry out a project.

There is enough evidence on factors responsible for causing project failure as identified from literature review and empirical studies. Review of literature shows that several researches were done in Botswana pertaining to the causes of project failure and many articles were on the view point of government, end users and stakeholders. This study attempted to fill in the gap by bringing in the viewpoint of contractors on causes of project failure in Botswana. The research study helped to give options to consider in order to avoid project failure. This was a country-specific contribution, but it could be applied to other economies with the same systems. Projects delivered on time contribute to saving the government money.

1.7 SCOPE OF THE STUDY

According to Oguduvwe (2013) the scope of the study states how far the research will go; it gives an overview of the limit and the extent of the study. It takes into consideration the direction the study is to follow and the areas that need to be covered.

The study focused on identifying factors responsible for project failure in the public sector according to contractors. A study was done with personnel directly dealing and responsible for projects in the situation of Botswana. The targeted population were contractors, specifically those who have done some projects from 2012 -2016. A list of contractors was sought from PPADB, they were contacted and questionnaire administered to those selected.

1.8 LIMITATION OF THE STUDY

To put the research findings in a context it is important to understand its limitations. Limitations also indicate how the current work may be improved in the future. According to Ioannidis (2006) all research work have some limitations and they should be covered and discussed in a research article.

The research study was limited to Botswana situation as it only focused on identifying factors affecting project failure in Botswana, which means the study did not have the worldwide perception. It has to be noted that factors influencing project failure in developing countries are not the same with those of developed countries.

This research study was also limited to public sector, therefore the findings may not be applicable to a private sector. The study was further not specific to a particular type of a project.

1.9 ORGANISATION OF THE RESEARCH REPORT

The research report was divided into five sections.

Chapter 1: This chapter introduces the research study. Chapter 1 stipulates the structure and the overview of the dissertation. Here background information and the research problem are clearly elaborated. Objectives of the study and the hypothesis to be tested are explained. The chapter also elaborates on the importance of the research and highlights on the methodology to be used. The scope of the research study was determined. The chapter is basically a brief discussion of the research report.

Chapter 2: This chapter contains the literature review of the research. In this chapter the concept of project failure and contractors are defined. The theoretical and conceptual framework of the study are highlighted. The aim of chapter 2 is to clearly elaborate on causes of project failure. The chapter has an ending that connects the literature review to the study being undertaken.

Chapter 3: This chapter touches on the study method used. The research environment is looked into and de-limitations of the study is presented in this chapter. The way data was collected is defined and the target population is clearly explained in chapter 3 of the study. The chapter ends with a sample of questionnaire that was given to respondents.

Chapter 4: This chapter spells out how data was analyzed and the findings explained. The survey that was done in chapter 3, its data was analyzed and findings explained in terms of the main study. In this chapter the findings are subjected to statistical tools and results are fully discussed.

Chapter 5: This chapter is the conclusion of the research study. It is the last part of study where the research design, research method, research problem, hypothesis and research results are re-visited and final conclusion is drawn. It is here where the results found in chapter 4 are mapped into the literature review conducted in chapter 2. This chapter also highlights the research contribution. The overview of the study is given and the chapter ends with a list of recommendations

CHAPTER 2: LITERATURE REVIEW

2.0 INTRODUCTION

The primary objective of this chapter is to give a literature review of the research, and it is basically to state the background of the research topic, the research area and elaborate on the previous studies on the same topic. The literature review integrates the study within a larger academic scope. Its aim is to highlight to readers similar researches within the same context that have been conducted. It discusses arguments, debates, disagreements and agreements on the research topic and this study will contribute to further understanding of the research topic.

Doing literature review is essentially for refining the research idea, putting together what is already known about the subject and helping the researcher to find the knowledge gaps and how the study could contribute to further understanding. The literature review should not be a long list of all that has been written on the topic; but it should be useful and should look at both sides of the research problem. It should put forward the conflicting and inconsistency findings together with the established and current thinking. According to Key, Rich, DeCristofaro and Collins (2010) doing literature review requires skills such as gathering, sorting, evaluating and summarizing published data into relevant and informative report. Its aim is to build good knowledge with latest articles on a particular topic.

In this chapter broad keywords relevant to the topic were identified. These words were expanded to refine the study into specific subheadings and enable the structure of the research. In this study the concept of project failure and contractors were defined. The theoretical and conceptual framework of the study were highlighted. The purpose of this chapter was to give a clear understanding of project failure and its causes. The chapter has an ending that connects the literature review to the study being undertaken.

2.1 THEORETICAL FRAMEWORK

The theoretical framework consist of what experts said in a particular field, basically it is a well-defined principle that connects theories and concepts. A theory helps to define the phenomenon being studied. According to Kivunja (2018) it is what experts said about the research question and it might include suggestions of how to solve the problem.

Literature review indicates that there are so many failed projects for both public and private sector, however not enough information has been obtained in relation to private sector. Emerging from literature review various issues have been accountable for project failure in different projects.

Rondineli (1976) extensively analyzed the assistance given by international agencies to developing countries in project management. These agencies include World Bank, USAID and UNDP; they give grants to developing countries to do projects. The study revealed that developing countries meet challenges due to: ineffective project planning and preparations, faulty appraisals and selection processes, defective project designs, problems in start-up and activation, inadequate project execution operation and supervision and ineffective external coordination of project activities.

In his study Jannadi (1997) identified major factors contributing to failure of construction contractors in the Eastern Province of Saudi Arabia. 14 factors were identified. The factors were ranked according to their importance from the point of view of contractors. The top 5 factors were: difficulty in acquiring work, bad judgement, and difficulty with cash flow, lack of experience in the Firm's work and lack of managerial experience.

Rwelamila, Talukhaba and Ngowi (1999) investigated the factor of project failure syndrome by analyzing the case of Botswana and 8 other SADC countries. A questionnaire was given to senior personnel in construction companies, contract managers, site managers, foreman and Public Works Ministers from the other 8 SADC countries were interviewed. The study found out that most of government projects do not meet the requirements of a project and there was need to identify and understand project client relations.

Ofori (2000) in his paper considered the challenges faced by the contractors in developing countries and came up with 4 challenges being: construction industry developments, globalization, culture and environment.

Kariuki (2000) evaluated major causes of project failure by conducting a desk survey on 30 articles of project failure. He identified 12 major causes irrespective of project type and these were; lack of stakeholder participation, poor planning, poor communication, lack of executive support, lack of resources, scope creep, poor requirement, lack of control, unrealistic budgets, organizational structure and project methodology.

Similarly Assaf and Al-Hejji (2006) investigated the cause of delay of huge project in Saudi Arabia involving 76 contractors, 19 consultants, and 15 project managers were interviewed. In their research 73 causes were identified and were clustered into 9 groups which were: financial problems, changes in design and scope, delay in making decisions and approve by owners, difficulties in obtaining permit and communication problems

Tumi, Omran and Pakin (2007) identified important causes of delays in construction projects in Benghazi city in Libya. The study revealed that improper planning, lack of effective communication, shortage of supply and design errors were the causes of delay.

Sambasivan and Soon (2007) carry out a research on Malaysian construction companies by administering 200 questionnaires to project client consultants and contractors. The findings came up with, 10 most critical causes of delay in construction as; poor planning, poor project management, lack of expertise, lack of resources, disputes, litigations, total abandonment, time overrun and costs overrun.

Toor and Ogunlana (2008) conducted a survey in a major construction project in Thailand to explore problems causing construction delays. The survey revealed that: lack of resources, poor contract management, shortage of labor, design delays, planning and scheduling deficiency, changed orders and contractors financial difficulties were the main factors.

Mphale, Okike and Mogotlhwane (2010) assessed the rate of failure and success for ICT projects in Botswana. In their study ICT executive officers were interviewed; the results were then evaluated using project models. In the research study it became evident that executive managers were very much aware of factors causing project failure in their organizations. These

were lack of support from managers and projects being executed with inappropriate software equipment.

Couasillas, Rodriguez, Concepcion (2010) analyzed the causes of project failure and factors for project success within the Austrian field. A survey was done among companies and governing bodies dealing with Project Management. The study found that the most problematic target was to finish project on time. Projects failure were mostly caused by inaccurate time estimations.

Sinesilassie, Tabish and Jha (2010) carried out a study to determine factors having impact on performance of Ethiopian public construction. A questionnaire was administered to senior personnel in various companies. The result of the study was that six failure factors were identified as having influence on planned construction projects and these were: conflict among project participants, poor human resource management and Project Manager's incompetence.

Olateju, Abdul-Azees and Alamutu (2011) examined the use of project management tools in the Nigerian public sector in 23 public institutions. The study revealed that the use of PM tools and techniques were necessary in achieving specified time and budget through use of minimal resources. The study also revealed that there was a high cost of application and lack of in-depth knowledge of PM tools.

Hanzah, Khoiry, Arshad, Badaruzzaman and Tawil (2012) identified causes of delays in construction in Malaysia. There were 34 causes that were determined from the field survey, 24 were selected to be analyzed through the Rasch model analysis. The result indicated that the causes of project failure were; labor productivity, delivery of materials on site, increased material price, financial difficulties faced by contractors and inadequate contractor experience.

Similarly Aziz (2013) in his study investigated and ranked factors perceived to affect cost variation in the Egyptian wastewater projects. The survey conducted involved experts and practitioners in the industry and the results revealed that factors that caused cost variation are: additional work, bureaucracy in bidding, wrong method of cost estimation and funding problems.

Kaboyakgosi and Marata (2013) examined the factors that contributed to projects being poorly implemented in Botswana by doing desk review of literature on factors responsible for poor implementation. They concluded that in Botswana, poor project implementation was made worse by refusal to adapt to change, policy misinterpretation, reluctance to commit to policies in place and the supply nature of projects.

Ikediashi, Ogunlana and Alotaibi (2014) investigated factors causing project failure in Saudi Arabian situation. A questionnaire survey was conducted from 67 respondents; targeting civil engineers, architects, quantity surveyors and building engineers. The findings indicated that poor risk management, budget overruns and poor communication were the common causes of project failure in construction.

Damoah, Akwei and Mouzughi (2015) interrogated failure of public projects in developing economies with Ghana being the case study. The study came up with 32 potential effects of project failure in public sector which were identified after interviewing 265 respondents. The

data collected was analyzed using Spearman Rank Correlation Coefficient and the Chi-square test of significance. The result of the study was that 10 most probable factors were identified and these were: poor management, corruption, political influence, change of political power, bureaucracy, and lack of continuity, unstable prizes, planning, delays in payments and release of funds.

According to Ogunmola (2015) the three major factors causing project failure in the Nigerian public sector were due to procurement letdowns, failure to invest in business situations and institutional framework.

Boakye (2015) also investigated the case of African Development Bank as to why internationally funded projects failed by analyzing 53 completed reports of AFDB. The study indicated that poor project Quality-at-Entry (QAE), weak project structure, poor control mechanism, weak implementation capability and cognitive bias were the main reasons for project failure.

Shahhosseini, Afshar and Amiri (2016) investigated the root cause of construction project failure in Iran using Fault Tree Analysis (FTA) and Linguistic Weighted Average (LWA) and found out the tools used were inappropriate in dealing with many contractors as the results were unreliable.

Sefhemo (2016) in his study investigated the causes of project failure in Botswana, focusing on the Ministry of Infrastructure, Science and Technology. The research findings were that the issue of project control was often not in place due to incompetency of the Project Manager.

Ahady, Gupta and Malik (2017) reviewed the causes of cost overruns in construction industry in 8 developing countries and found that all factors are peculiar to every project but the most common factors were; poor management, fluctuating material prices, inaccurate material estimates, and the financial status of the contractor.

Botlhale (2017) reviewed implementation of projects in Botswana by interviewing a senior officer at GICO and concluded that public projects are poorly implemented.

Similarly Adebisi, Ojo and Alao (2018) carried out a research to investigate issues affecting the leaving behind and failure of multi-storage in Nigeria. The research instrument was a questionnaire that was given to consultants and contractor personnel. The data was analyzed and subjected to statistical tools and this involved using frequency distribution, percentages, mean item score and factor analysis. The result of the study indicated the following factors as having influence on project failure: lack of funding by client, poor planning at pre-construction phase, structured failure in multi-storey building during construction, business failure of the contractors and improper scheduling of the building project activities and failure to engage qualified personnel with technical expertise and experience. The study also ranked the factors responsible for abandonment of multi-storey building project and lack of funding was given the highest ranking by respondents.

Wazim and Khalidi (2018) identified major factors influencing project failure in Pakistan. A questionnaire was constructed from the 33 major causes identified from literature review. Industry professionals in Pakistan were given the questionnaire and the result was that the top

ten causes of failure in construction projects in Pakistan were ranked in this way; 1. Incompetent workers. 2. Late purchasing of lead items 3. Delay in payment to contractors 4. Inaccurate cost estimates 5. Inaccurate project schedule 6. Incompetent Project Team 7. Lack of 8. Project planning 9. incompetent project manager 10. delay in providing site access to contractors.

Zidane, Yousef and Anderson (2018) investigated the top 10 universal delay factors in construction by reviewing literature and the results were: poor planning and scheduling was number one followed by poor decision-making process, bureaucracy within project organization, resource shortages, poor communication and coordination between the parties, slow quality inspection process, design changes during construction, lack of commitment by sponsor or client and improper design.

Recently Igwe and Ude (2018) looked at the current issues around project planning and implementation in Nigerian public sector as against the best international practices by reviewing the past and the current literature. They found out that the three legs of government have not planned, implemented or executed projects with due care in line with the global best practices. There was sub-standards in project implementation, lack of vision, inadequate budget allocation, high cost of project financing and corruption

The table 2.1 below gives a summary of each article and its key findings

TABLE 2.1 Summary of key finding from literature review

AUTHOR	YEAR	CAUSES OF PROJECT FAILURE IDENTIFIED
Rondeli	1976	Ineffective project planning and preparation Faulty appraisals and selection processes Defective project design Problems in start-up and activation Inadequate project execution, operation and supervision
Rwelamila et al	1999	Projects being sub-standard Sour project client relations
Ofori	2000	Challenges in construction industry Globalization Culture Environment
Kariuki	2000	Lack of stakeholder participation Poor planning Poor communication Lack of executive support

		Lack of resources Scope creep Poor requirement Lack of control Unrealistic budgets Organizational structure Faulty project methods
Assaf and AL Hejji	2006	Financial problems Changes in design and scope Delay in making decisions Coordinating and communication problems
Tumi et al	2006	Ineffective communication Poor planning Shortage of supply Defective project designs
Sambasavian and Soon	2007	Poor planning Poor project management Lack of expertise Lack of resources Disputes Total abandonment Time overruns Cost overruns
Toor and Ogunlana	2008	Lack of resources Poor contract management Lack of expertise Poor planning Changed orders Financial difficulties of contractors
Couasillas et al	2010	Inaccurate time estimates
Mphale et al	2010	Sub-standard projects Lack of support from executive
Sinesilassie et al	2010	Poor planning Conflict among project participants Incompetent Project Manager Poor human resource management
Olateju et al	2011	High cost of application Lack of knowledge of PM tools
Hanzah et al	2012	Labor productivity Delivering material on site

		Increased material price Financial difficulties by contractors Inadequate contractor experience
Aziz R.F	2013	Lowest bidding method Changed scope Bureaucracy in bidding Inaccurate cost estimations Funding problems
Kaboyakgosi and Marata	2013	Resistance to adapt to change Policy misinterpretations Reluctance to commit to policies Supply nature of projects
Ikediashi et al	2014	Poor risk management Budget overruns Poor communication
Damoah et al	2015	Poor management Corruption Poor planning Political influence Bureaucracy Lack of continuity Unstable prizes Delays in payments and releasing funds
Ogunmola	2015	Procurement let downs Failure to invest in business situation Institutional framework error
Boakye	2015	Poor project Quality-at-Entry Weak project structure Poor control mechanism Weak implementation capability Cognitive biasness
Shahhosseini et al	2016	Results were unreliable
Sefhemo	2016	Incompetence of Project Manager
Ahady et al	2017	Poor management Fluctuating material prizes Inaccurate material estimates Contractors financial status
Botlhale	2017	Sub-standard in project execution
Adebisi et al	2018	Lack of funding Poor planning Structural failure

		Business failure Improper scheduling of project activities Failure to engage qualified personnel
Wasim and Khalid	2018	Incompetent workers Late purchasing of lead items Delay in payment to contractors Inaccurate estimates Inaccurate project schedule Incompetent project team Poor project planning Incompetent Project Manager Delay in providing site access
Zidane et al	2018	Poor planning Poor decision-making Bureaucracy Lack of resources Changes in design during construction Poor communication and coordination Slow quality inspection Lack of commitment of sponsor or client Incomplete or improper design
Igwe and Ude	2018	Sub-standard in project execution Lack of vision Inadequate budget allocation High cost of project financing Corruption

2.2 CONCEPTUAL FRAMEWORK

The importance of the conceptual framework cannot be overemphasized as it is the approach of how things are going to work out; it sets the research question within the applicable theoretical context. The conceptual framework maps out the actions required in the course of the research study; it is the roadmap that guides towards realizing the objectives of the study. According to McGahie et al (2001) the conceptual framework guides in the selection of the study variables and provides a means of interpretation to the result of the research. The problem statement put forward the context and the factors that causes the study to be conducted, it is also the reference in constructing the conceptual framework. The conceptual framework first classifies the research variables and simplifies the relationship among the variables. It is also known as the research mode. It is developed from the literature and the experience of the researcher.

The researcher as a working officer has been introduced to the world of projects through work and at times supervised developmental projects in the department. The researcher has been part of the tendering board at the district level and have experienced the disputes of tenders between government and contractors. There was a realization that most government projects do not perform well, as some were abandoned, others did not do a good job and they were always the issue of under estimated cost. The point of interest for the researcher was what the causes of all these problems were. As an officer the researcher is more interested in equipping herself with issues of project management.

In this study the factors causing project failure in Botswana were used as variables. From literature review several variables affecting projects were identified. The conceptual framework was developed by identifying 10 variables of causes of project failure that were adapted from literature review. The variables that were interrogated were; poor risk management, budget overruns, poor communication, poor expertise, time overruns, project scope, poor planning, disputes, poor project management and lack of resources. The study also wanted to determine the factors that were most responsible for causing project failure. A questionnaire was administered in order to rank the factors. Respondents were to indicate which of these factors were the most prevalent in their case. Respondents were also asked to state three main reasons for project failure and how it can be avoided. The proposed conceptual framework is illustrated in Figure 1.1 below:

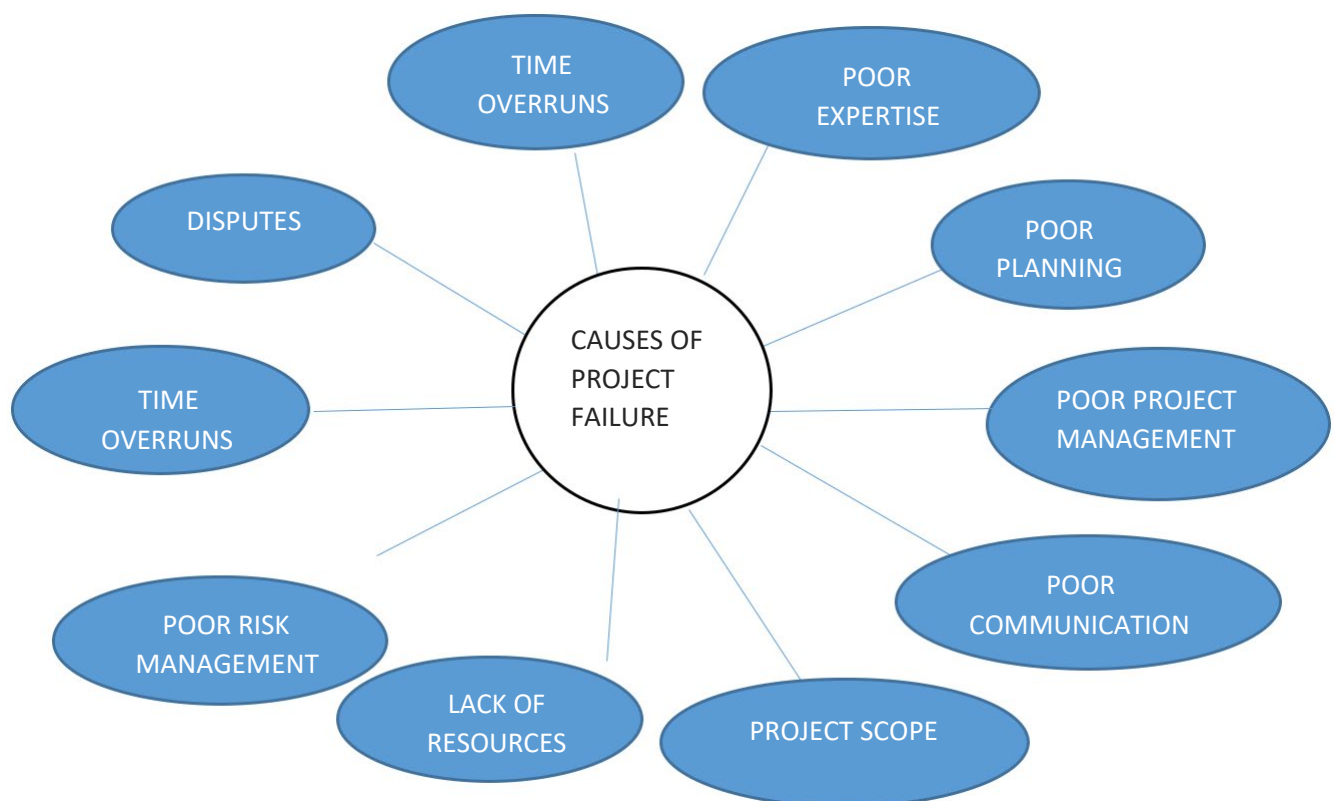


Figure 1: Causes of project failure as adapted from Stewart (1997)

2.3 The Concept of project failure

Project failure

Researchers and scholars have greatly discussed the topic of project failure. Authors have had different views as to what causes project failure. The original explanation of project failure was viewed as project performance from the management of project phases. Project failure was only explained at the end of the project. The other thinking that was different from the traditional definition viewed project failure as after-delivery stage or post-delivery phase to the impact stage.

Pinto and Mantel (1990) agreed that it is not easy to outline exactly what project failure entails as there seems to be collective issues related to project success. Furton (2003) insisted that money, time and scope are the three main pillars of any project so any slight deviation in any one of these may upset the balance of the whole project.

Atkinson (1999) describe project failure /success as placed on the project model known as project constraint. This definition does not see project success/failure beyond the delivery stage.

In the field of Project Management (PM), a project is deemed to have failed when it does not meet the needs of the project, does not satisfy the end user and when the project is not completed within the expected time frame and project budget. Ogunmola (2015) was of the view that a successful project is completed within time, budget and its purpose is in line with the hopes of stakeholders. A failed project is seen as a project that is delivered way beyond its completion time, has repercussions on budget overruns and its aftermaths do not meet the stakeholder expectations. In this research study, project failure is taken as any project that fail to meet the required time schedule; fail to achieved cost objectives and fail to provide expected project scope and integrate the views of stakeholders.

Damoah et al (2015) characterized project failure research into three groups. The first group was the common view of project failure; which only looked at how government policies were carried out. Researchers in this category looked at a single authoritative decision and as to whether the project was carried out successfully or it failed. The second category of researchers came up with two different approaches; the top down and the bottom up. The top-down line concentrated on implementation of policies as passed by government to local authorities and other government departments while bottom up style gave attention to implementing bodies as having the ability to interpret policies differently from policy makers. This makes it possible to shift the aim of the policy makers in the bottom up approach. The third category is the more advanced one which viewed project failure as a single case implemented by government or private sector (Kaboyakgosi & Marata, 2013). This study automatically falls within the third category as it focuses on project failure in government projects focusing on the viewpoint of contractors.

2.4 CONTRACTORS DEFINED

Contractors are defined as the tool through which organizations meet their aims of expansion and they have a critical role in achieving successful projects. El-sokhn and Othman (2014) identified contractors as among the primary players of any construction project and feel that they should be part the design and planning stage so as to be aware with any change, defects or conflicts of the project. The performance of a contractor has the potential of causing project failure. Failure to deliver projects negatively impacts on contractors, so it is crucial to understand their viewpoint on causes of project failure.

Contractors normally focused in certain types of construction sectors; others may specialize in residential, others commercial others energy sector or water sector and others on logistics. The category given to a contractor depends upon the equipment the company possess and the ability to perform a given scope of works (Ismail, &Wahabad, 2014).In Botswana the PPADB classifies contractors into 5 categories; they are classified as OC, A, B, C, D and E. Contractors are responsible for setting price and construct all phases of the project that is covered in the contract.

2.5 FACTORS CAUSING PROJECT FAILURE

Several researchers have come up with various reasons that are linked to project failure and such factors can cause the project to be terminated. The issue of project failure has been reported in almost every country. Literature review has shown that project failure is common in developing countries because they take part in building projects such as building of roads, dams, industries and e-government services.

Sweis (2015) argued that factors that lead to project failure in Information System (IS) projects can be categorized into managerial and technical ones. Managerial comprises of poor communication, poor leadership, meager competencies and poor methodologies while technical factors entail inappropriate defined software equipment and poor technical support.

Asiedu, Adaku and Owusu-Manu (2016) in their research tried to address the causes of project failure and stakeholder responsibilities by probing the nine reasons previously stated in literature review. The findings of the study showed that poor performance, time delay and cost overruns were the main factors causing project failure.

Phatshwe (2014) in his study, investigated the problem of project implementation at the Botswana National Productivity Centre (BNPC) and he established probable solutions that can be used to help the center to better manage strategic projects. The study indicated that working in silos was the root cause of problems as there was communication breakdown and poor collaboration between departments.

A study was undertaken by Botlhale (2017) to review the execution of public projects in Botswana. The results of the study was that projects were poorly done and this caused time and budget overruns and at the end shoddy projects were given out.

Mphale et al (2016) in their research study assessed the success/failure of ICT projects in Botswana and found out that majority of ICT projects were poorly implemented. There were

number of failed ICT projects. In their inquiry they found out that most projects fail because; IT system was not able to solve problems that it was intended to, use of consultants, poor project management, no commitment, lack of top management support, violated budget constraints and poor leadership style.

2.6 RANKING THE CAUSES OF PROJECT FAILURE

In this study the researcher has determined the most influential factors from contractors that were responsible for project failure. The hypothesis that were tested was to see if the contractors agree or disagree on the factors are that more influential. Several studies have indicated that causes of project failure have relative importance; that is they do not have the same influence in causing project failure.

Wasim & Khalidi (2018) directed a study on causes of construction project failures in Pakistan. The study ranked the cause as; incompetent contractors, delay in procurement of lead items, delay in payments to contractors, inaccurate cost estimation, inaccurate project schedule, incompetent project team, lack of planning, incompetent Project Manager, delay in providing site access to contractors and lack of cash flow and delay in design phase.

Khan (2016) also surveyed the major reasons of project failure in Community Based Organization in Pakistan. The study ranked significant reasons for project failure. The top five highest rank reasons for project failure were; poor planning, poor project design, lack of consent, support and commitment from upper management and poor project management

Sweis (2015) ranked the factors that could result in failure of an Information System Project. When ranking these factors the three main ones that stood out were late alterations in design specification in the project as the number one reason, followed by underestimated timelines, and poor internal communication in the third position.

Mohd, Kadir, Salin and Ernamati (2007) considered main reasons causing interruptions in doing building construction projects in Malaysia. The findings were evaluated and the causes of delay were ranked. The research indicated that financial problem was ranked first and coordination was given the second position.

2.8 CONCLUSION

According to El-sokhn and Othman (2014) the search for success and failure factors in projects started before the 1990s. Literature review has provided different factors responsible for project failure and recommendations on how to avoid these disasters has been stipulated. Similarities exist among these factors; most researchers agreed that poor definition of project scope and managerial issues are the most causes of project failure. Poor planning, lack of funding and poor communication have been singled out as common factors that affect project failure.

The issue of project failure has kindled a discussion in project management literature and provoked writings on the subject. Literature review has shown that the subject of project failure is an unending discussion; it is not a dead topic. Literature has also discovered that developing countries do experience a lot of project failure so Botswana as a developing economy has the problem. The conclusion that can be drawn project is that failure has become part and parcel

of organizations and governments doing projects and these project failures have been reported from different perspectives. This research study is differentiated from previous ones by its scope, while Sefhemo (2016) focused on the Ministry of Infrastructure, Science and Technology, Mphale et al (2016) were looking at ICT projects and Rwelamila et al (1999) looked at the syndrome failure in Botswana and other 8 SADC countries, this study will be investigating at causes of project failure from the perspective of contractors in the context of Botswana. The research will add to previous literature on management as well as contributing of previous studies

CHAPTER 3: METHODOLOGY

3.0 INTRODUCTION

Chapter 3 touches on the methodology that was used in collecting data. Methodology has been defined as the plan of action or the strategy that was put in place to get the survey findings and it involves the use of a particular method. It stipulates the methods that enabled the researcher to identify elements causing project failure and how they were categorized. In this chapter the research instrument and the statistical tools used are described in full. The way data was collected is fully described and the target population is clearly defined in chapter 3 of the study. Data analysis techniques and methods used to obtain data were explained below. Ethical considerations that were put in place were also noted in this chapter. The chapter ends with a sample of questionnaire that was given to a sample group which is shown in Appendix B.

3.1 RESEARCH PHILOSOPHY

The research philosophy denotes how the researcher views the world and how he/she is going to do the research. Gill and Johnson (2002) revealed that in doing the study, the researcher must make a plan of action that is determined by his/her philosophical assumptions. The plan of action is influenced by the nature and content of the research situation, together with the availability of resources. The three main common ways of doing research are quantitative, qualitative and mixed methods. The choice of appropriate method depends on; research purpose, characteristics of the target population, financial and time resources available. According to Williams (2005) a quantitative approach responds to a research question requiring numerical data. Leedey and Ormrod (2001) argued that quantitative method is detailed in its surveying and experimenting and it is constructed upon existing theories. In this study a quantitative approach was adopted.

The three research philosophy known are epistemology, ontology and axiology. Epistemology create accepted knowledge in the field of study. The four paradigms used in the evidence system study are; positivism, interpretivist, advocacy and pragmatism. Rahi (2007) explain that positivist agree that the truth can be gained by observing and experimenting and interpretivist obtain the truth by deep interpretation of the subjects being studied. According to Holden and Lynch (2007) interpretivist perception maintains that it is crucial for the researcher to recognize the various roles played by humans as social actors. The heart of the matter here is to get into the social world of the subjects and understand the world from their perspective. This study was interpretive in nature as we tried to understand project failure from the world of contractors.

This research study was to identify factors causing project failure in the case of Botswana from the contractors' perspective. A quantitative questionnaire survey was implored to get responses from the subjects. Several causes of project failure were identified from literature review and the structured questions formulated comprised of the accepted reasons from literature. The questionnaire survey is easy to use as many people are familiar with it. When gathering data from a large sample size it is cost effective to implore a questionnaire. The research instrument had structured and open ended questions. The structured questions reduced

the biasness of the researcher and it increased quick response. Unstructured questions on the other hand enabled respondents to present their own views.

3.2 RESEARCH DESIGN

The main aim of a research design is to formulate a structure that adequately present the research question. Its primary purpose is to clarify the uncertainty of the research data. According to van Wyk (2016) the research design explains what data is needed and which methods are to be implored to collect, analyze data and how the methods will answer the research the question. It is a broad strategy that seeks to respond to the research question that has been presented by the study. Rahi (2007) argued that the research design is not associated with any method of collection of data because in principle any research design can implore any process of data collection. The research design is basically for identifying the kind of proof that is needed to respond to the research question in a definite approach.

The approach the researcher uses to advance the research design is affected by the research question whether it is descriptive or explanatory. The research design reflects the purpose of the research; it can be descriptive, exploration, explanatory, predictive, evaluative or historical. The research design influences what information is collected.

The study takes an interpretive, descriptive approach to quantitative design. The research question is ‘what are the factors that causes project failure’. The research instrument used to produce primary data was a questionnaire.

3.3 TARGET POPULATION

In every research study data integrity determines the credibility of the outcomes, and population is the main source of data which influence the credibility of the research. Researchers are to sufficiently understand their study population and visibly describe it at the point of recording the research. This is crucial in appraising the credibility of the sample, sampling techniques and the research findings. Population can be defined as people or items that the researcher wishes to understand. The general population is the largest number of participants who share some basic attributes of interest. Kombo and Tromp (2006) defined population as a set of individuals, objects or items which samples are drawn for measurement. It is the whole group of personnel or components that have at least one thing in common. The target group is more refined as compared to general population. Similarly Mugenda and Mugenda (2003) defined the target population as the population that the researcher uses to generalize the findings of the study. It is often not possible to bring on board the whole population, rather researchers take a section from the population of interest to include in the study. There has to be eligibility criteria to determine whether the individual is qualified to participate in the study or not. If the study population undergoes a sampling error, the study population will not properly depict the target population.

The population of interest in this study were contractors. The target population were company owners, individuals working in contractors who have performed some work during the period 2012-2016. To further refine the population; contractors with offices in Gaborone were targeted. The PPADB categorizes contractors in Botswana according to 5 types and they are

classified as OC, A, B, C, D and E. The study concentrated on all contractor's categories and those who had done some work in the period under review.

3.4 SAMPLING PROCEDURE/TECHNIQUES/METHODS

The four methods of sampling are random sampling, systematic, stratified and cluster sampling. The purpose of sampling tactics in a study is to acquire enough sample that will depict the population. The random sampling technique gives each participant of the population the same and independent opportunity to be elected. Etiken and Bala (2017) argued that random sampling methods are ideal for quantitative study that uses a great number of units from a population. It enables the researcher to make accurate assumptions; the researcher statistically calculate the connection between the sample population and the targeted population. Moreover fewer resources are used by not reaching every individual in the whole population. The technique has a shortfall of eliminating certain characteristics of the population in sampling like gender, age and race. Random sampling does not guarantee that every random sample perfectly represent targeted population. It is crucial to know the right sampling method for the type of the population in the study-whether it is probability or non-probability.

Simple random method is a collection of data from the population that is close and easily reachable. In this study simple random sampling technique was used in order to get contractors to be in the research study. This made it possible for the researcher to follow the participants and get feedback in a cost effective way. Information on registered companies was retrieved from PPADB website. The targeted contractors were those that have head offices or branch offices in Gaborone and could be reached.

3.5 SAMPLE SIZE

Sampling is the process of selecting a statistically representative sample. According to Rahi (2017) sampling is taking a small part of the target population. A sample size indicates the number of partakers to be used in a certain study. Orodho and Komb (2002) defined sampling as a way in which the researcher uses to attract people, places or other things to be used in the study. A good sample is the one that has a statistical representation of the targeted population and is large enough to answer the research question. Obasi (1999) observed that the size of a sample is determined by a number of technical issues as well as human and financial considerations. Sample size in a study should have adequate power and significance, so determining the sample size is crucial in quantitative studies. Furthermore a good sample must be free from error of representation.

A population can be finite or infinite, conceivable or inconceivable; whether the population is finite or infinite sampling has to be done for the following reasons;1.It is impossible to do a complete and comprehensive study of the whole population due to nature and patterns of distribution on elements of the population.2.There are similarities among the elements that make up the population of the study, so studying few of these elements will give the researcher sufficient knowledge of what is happening in the entire population.3.It is easier to study a sample than the whole population and get results quickly. According to Obasi (1999) a population of few hundreds should have 40% sample, many hundreds 20% sample will do while few thousands need 10%.It is very crucial to obtain sufficient numbers of respondents

within the sample strata to achieve a specific level of statistical power. In probability sampling choosing the sample size must be done before the commencement of data collection.

In this study 100 contractors were randomly chosen for the survey and to increase the validity and reliability of the research instrument individuals from a company who had sufficient experience to provide the required information about the contractor was given the questionnaire.

3.6 SAMPLING FRAME

Sample frame indicates those individuals who have a chance to be among those selected in the targeted population. It is important to have an updated sample that depicts the target population of the study. Once the sample frame and the sample size has been decided then the researcher can randomly select the sample from the frame.

In this study from the PPADB website contractors of all categories were drawn. Those with offices in Gaborone, A sample frame of 250 contractors was drawn and sample size of 100 was what was decided.

3.7 RESEARCH INSTRUMENT

It is very crucial for researchers to use the most accurate and valid data collection instruments available to acquire credible data when conducting a research. Research methods includes techniques that are used for conducting research, these techniques includes data collection and analysis tool. There are different data collection instruments that can be identified from the literature review. Quantitate research methods include experiments, surveys, structured observations and structured interviews. The data collection tool selected should undergo comprehensive critical appraisal to be able to assess validity and reliability. Zohrabi (2013) define a survey research as the gathering of information from a sample of individuals through their responses to asked questions. It allows the researcher to use a variety of methods to recruit participants, collect data and use different ways to recruit participants for intervention. Bailey (2008) defines a questionnaire as a method in which each respondent is asked to respond to an identical set of questions in a programmed order form of questions in a predetermined order. Questionnaire is the most widely used method for collection of primary data because of its ability to harness data from a large sample that maybe geographically dispersed. Respondents can complete them at their convenience and can also be used to gather a large amount of information using different question type.

Richard and Schimidt (2001) alleged that questionnaire is the major method of attaining data in any study undertaking, the researcher should make sure that it is effective, consistent and explicit. Questionnaire can be in three forms; closed-ended (structured), open-ended (unstructured) or a mixture of close-ended and open ended. Close-ended questionnaire gives the enquirer numerical data and limit the respondent to select from different responses. Open-ended questionnaire provide the enquirer with text information and require additional analysis. According to Nuan (1999) it is best that any questionnaire could have both the closed ended and open ended to support one another.

Questionnaires are also categorized in a way they are ordered. Self-administered questionnaires are done by correspondents and may be forwarded electronically, through the interview or sent through mail or distributed by hand to each correspondent then feedback taken after some time. Interview-administered questionnaire is ordered by the researcher based on the respondent answers obtained telephonically or face-to-face interview. However the disadvantages of using a questionnaire are; inadequate feedback when post or email has been used, wording of the questions may affect the respondents' response and sometimes answers given maybe inaccurate and questionable.

Questionnaires may have demographic information in support to validity and reliability. Baxter et al (2006) divided questionnaire into seven basic question type; quantity (information),category list or multiple choice, scale, ranking complex grid or table and open-ended. Generrally a questionnaire can make use of one or several type of these question forms and each type has its own strengths and weaknesses. They are to be tested before being administered in a pilot study; getting on a small sample of respondents that has the same features as the anticipated sampling frame.

The questionnaire used for this study was made of closed ended and open ended questions that were in three sections; the first section was intended to extract information about respondents and that of the company. The questions included qualifications, professional experience and number of projects executed and how the company is rated in performance.

The second section of the questionnaire contained questions requiring respondents to rank each of the factors in a five-point Likert scale. The ordinal scale was from 1 to 5 and it showed the importance of factors in causing project failure. For each question surveyed respondents were to choose only one option out of possible which were: 1.no effect 2.little effect 3.moderate effect 4.strong effect 5.very strong effect. The last part sought respondents' view on project management, three main causes of failure in Botswana and what could be done to enhance project success in Botswana.

100 questionnaires were sent to contractors that were randomly selected from the PPADB website. Respondents were telephonically called to be recruited to the sample population. Questionnaires were sent through emails and non-responded to the questionnaire. Several follow up calls were made to contractors and few responded.

3.8 DATA COLLECTION PROCEDURE

Data collection is the process of gathering and collecting evidence in an orderly manner for data evaluation, which will add to answering to the research question. Data collection that is not precise will affect the findings of the study. Primary data is the evidence collected by the researcher, it is the first-hand inquiries and in this study it was collected by a questionnaire.

The process of collecting data in this study followed a two-stage sequential approach, first there was the literature review findings followed by a questionnaire. In conducting the questionnaire the contractors were contacted and recruited to the sample population. The questionnaire was personally administered to some respondents. The questionnaire was sent through emails to contractors hoping to get a faster response.

The variables in this study were causes of project failure as shortlisted from literature review. These were: poor risk management, budget overruns, poor communication, poor expertise, time overruns, project scope, poor planning, disputes, poor project management and lack of resources.

Data collected was evaluated using descriptive and inferring to statistics. Descriptive tools used were percentage, mean and standard deviation. Relative Importance Index was also used to rank the relative importance attitude to the identified factor.

The formula use was $RII = \frac{\sum W}{A * N}$

W-the weight awarded the variable by the respondent

A-the highest weight

N-the total number of respondents in the study

Mean Item Score was used to determine the most significant factors, and factor analysis was used to analyze the obtained data. According to Alao & Jagbore (2017) when using Likert-type scale a mean of >2.50 is appropriate in determining the significance of the variable

3.9 RELIABILITY AND VALIDITY

One of the major requirements of any research study is the reliability of the data and its findings. Reliability denotes the steadiness, trustworthiness and replicability of the research findings. The researcher has to proof the validity and reliability of the measurement tool, this also denotes that the questionnaire was properly constructed. At the end of the research readers want to know if the measurement tool used, correctly measured what it was supposed to measure; that is was it valid. Readers also need to know if the measurement tool used to quantify the variables gave consistent response; that is was the measurement tool reliable. As stated by Joppe (2000) reliability denotes the extent to which the findings attained by a measurement and procedure can be reproduced. It is simple to get like results in quantitative research as data is in numerical form. The researcher has to clearly explain the different process and stages of the study in order to increase the reliability of a study.

According to Zikmund (2003) validity assess whether the question is measuring what it was intended to measure; it also include repeatability that is the capacity of the measuring tool to produce consistent results whenever administered. The data collected in this study was reliable and valid as respondents that were selected for the survey were active contractors. The two constituents of validity tests are internal validity and internal validity. Internal validity denotes how precisely the data collected from the study actually calculated what it was intended to measure. External validity denotes how precisely the data collected from the study sample define the mentioned population from which the study sample was drawn.

In this study the research instrument used to produce primary data was a questionnaire. To improve the validity and reliability of the data collected a pilot study was conducted on contractors in Nkange constituency. These were contractors who were doing projects in Nswazwi, Goshwe, Maitengwe and Tutume villages. The idea was to test the content of the

questionnaire if it was not ambiguous. The wording of each question was clear and precise to ensure that each participant interpret its meaning easily and accurately. The pilot study was to establish if the instrument adequately address all objectives of the study. When results of the pilot study were evaluated they revealed that the instrument can be used for the main study. Pilot study findings are attached as Annexure D

3.10 ETHICAL CONSIDERATIONS

When conducting research it is important for the researcher to observe some ethical issues. It is imperative in a research to protect the human subjects or participants. Participation in the study should be entirely voluntarily and participants should be able to pull out from the study at any time without any penalties. Fouka and Mantzorou (2011) argued that the four major ethical considerations in conducting research are; a) Informed Consent b) Beneficence-not having fear. c) Respect for anonymity and confidentiality d) Respect.

Consent was sought from research respondents after being recruited through telephone conversation, a letter was written to respondents that was sent together with the questionnaire. The consent letter is attached as Annexure A. The respondents sent a formal confirmation through the mail. Respondents were made aware that their individual participation in the study was valuable. Respondents were also made aware that their participation was voluntarily, not forced to answer the questions and they could pull out from the study at any time. The participants were assured that the study was not associated with any threat or hazard so it was safe to participate in it. Respondents were also made aware that the information collected was purely for academic use and confidentiality was maintained. Completing the questionnaire only took less than 20 minutes.

3.11 CONCLUSION

In conclusion the heart of the research study is the collection of data. The two sources of collecting data are primary and secondary. The questionnaire was used to collect primary data as it is able to collect data from a large and dispersed groups of people. It is crucial that the instrument used is valid and reliable. Efforts were made to ensure that data collected was trustworthy and the method used produced replicable results. Ethical considerations that were part of the study were that: participation was voluntarily and participants were able to withdraw at any time without any consequences. There was informed consent and confidentiality of participants was maintained. The sampling frame chosen rightly characterized the target population.

CHAPTER 4: ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

4.0 INTRODUCTION

Data analysis explains ways of handling and presenting data and stipulates the statistical procedures used in the study being undertaken. Analyzing data in a research study is a crucial step as it spells out the findings of the project. According to Bird (2009) results of the study should be presented with clarity and precision. In the last chapter, research methodology was outlined, the analysis is put forward and interpretation of the results of the survey conducted. The survey that was done in the previous chapter, its data was analyzed and interpreted in relation to the main study. According to Ader (2008) analyzing data is a way of expanding, clearing and bringing out data with the aim of emphasizing useful information. The results were also compared to the literature review conducted in chapter 2. The primary goal of presenting data is to summarize the characteristics of data to make it more comprehensible and meaningful.

With the help of a questionnaire 47 contractors responded to the survey. Simple random sampling method was implored to recruit participants in the targeted population. This chapter presents the response of the 47 participants which helped in understanding the contractors' views and opinions as regard to what causes projects to fail in Botswana. Personal characteristics of the 47 respondents who answered the question were analyzed. 10 factors taken from literature review were subjected to the views of the contractors. These factors do not represent all the inventory of causes of project failure.

4.1 DESCRIPTIVE ANALYSIS

A total of 250 contractors' addresses were gathered from the PPADB website and 100 were contacted to be recruited to be part of the survey, only 47 brought back valid and usable questionnaires which represented 47% of the response rate. Data that was obtained was subjected to descriptive and inferential tools. Percentages, tables, mean and standard deviation were used to describe the findings. To rank the judgement of contractors on the factors the Relative Importance Index (RII) was used.

Measuring Instrument Structure

The measuring instrument to collect data from respondents was a questionnaire. The questionnaire was divided into three sections. Several questions that were crucial and ensured relevant response were given were implored in constructing the questionnaire. The response by the participants informed the researcher about the views and opinions on factors causing projects to fail in Botswana.

Section A (Background Information Question 1-Question 10)

This section sought to establish the relevance of the respondent and the relevance of the company to the study. The information solicited was gender, age, qualifications, position in the company and experience of the respondent. Information required about the company was category, area of application, years of operation, number of projects undertaken by the company during the period under study and the performance success of the company.

Section B (Factors influencing project failure Question 11-Question 20)

Information gathered in this section wanted to establish how these factors affect project failure in Botswana. 10 factors taken from literature review were presented. Respondents were asked to rate these causes using a 5-point Likert scale. These factors were: Poor Risk Management, Poor Communication, Poor Expertise, Time Overruns, Project Scope, Poor Planning, Disputes, Poor Project Management, Procurement delays and Lack of Resources. This section of the questionnaire answered objectives 2 and 3 of the research study

Section C (Respondents' view on project failure and recommendations Question21-Question 25)

This section wanted to establish from the respondents what causes project failure, where does it normally occur, how do contractors contribute to project failure and what can be done to enhance project success. This section answered objective 1 of the research study.

Q21 wanted the respondent to explain project management.

Q22 wanted the respondent to list 3 causes of project failure according to their view.

Q23 wanted to establish how contractors contribute to project failure.

Q24 wanted to know at what stage project failure occurs.

Q25 wanted the respondent to come up with recommendations to enhance project success

4.2 DEMOGRAPHIC INFORMATION

Background information of respondents was discussed in the first section of the questionnaire which had ten questions. Questions in this section tried to highlight the importance of the respondent to this survey. The academic qualifications they possess, gender, age, work in the business, the type and size of the business, number of projects performed by the company, application undertaken by the company, number of projects delivered by the company during the period understudy and the view on performance success of the company. The demographic information is illustrated in Table 4.1 below:

Table 4.1 Demographic Survey of Respondents

VARIABLES	CATEGORIES	FREQUENCY	%
Gender	Male	35	75
	Female	12	25
	Total	47	100
Age	> 20	0	0
	20-29	9	19
	30-39	17	36
	40-49	19	40
	<50	2	4
	Total	47	100
Position	Manager	18	38

	Estimator	1	2
	Architect	3	6
	Supervisor	6	13
	Other	19	40
	Total	47	100
Qualifications	Not trained	1	2
	Certificate	6	13
	Diploma	24	51
	Degree	15	32
	PhD	0	0
	Total	47	100
Categories	OC	21	47
	A	6	13
	B	11	23
	C	2	4
	D	4	9
	E	3	6
	Total	47	100
Experience	>2yrs	10	21
	2-5yrs	26	55
	6-9yrs	2	4
	<10	9	19
	Total	47	100
Company existence	>5yrs	16	34
	6-9yrs	20	43
	10-15yrs	5	11
	<15yrs	6	13
	Total	47	47
Area of application	Construction	31	66
	Manufacturing	2	4
	Services	9	19
	IT&Tele	3	6
	Other	2	4
	Total	47	100
Projects undertaken	>2	6	13
	3-5	25	53
	6-9	7	15
	<10	9	19
	Total	47	100
Company performance	Good	32	68
	Moderate	14	30

	Bad	1	2
	Total	47	100

There were 35 male respondents and 12 female respondents; male respondents accounted for 75% of the accessible population. None of the respondents were below the age of 20, in the age category of 20-29 there were 9 respondents, 30-39 age category recorded 17, 40-49 age category had 19 and only 2 respondents were above 50 years. 18 of the respondents were managers in the company, 1 was an estimator, 3 architects, 6 supervisors and 17 indicated other positions mostly directors in the company. In terms of professional qualifications only 1 respondent indicated to have no training at all, while 6 had certificates, 24 had diplomas and 15 were degree holders. In terms of years of experience 10 had less than 2 years' experience, 26 fell in the range of 2-5 years, 6-9 years recorded only 2 and those with experience of more than 10 years were 10. The results showed that 21 of the respondents were of OC category, 6 were A, 11 indicated B, 2 respondents recorded C, only 4 were of D grade and E grade recorded only 3. In the area of application 31 respondents indicated that there were in construction, 2 manufacturing, 9 doing services, 3 in IT and Telecommunication and 2 doing other business. In terms of company success performance 32 respondents indicated that the company was doing good, 14 rated it moderate and only 1 respondent classified the company performance as bad. The results indicate that there is biasness to the male population, OC grade and construction as the area of application is concentrated. This is understandable considering the situation in Botswana; few women are taking chances at the business world and most of the locally owned contractors will fall under the beginners' category.

The section wanted to establish the relevance of the respondents and their company to the study. The information solicited was vital as the study wanted individuals who have experienced doing projects in the field. The questionnaire was very much incline to people with companies and involved in doing projects in the country.

MITIGATING SHORTCOMINGS OF THE RESEARCH INSTRUMENT

The disadvantage of using a questionnaire to obtain data is that it impacts on the validity of the findings. Shao (1999) has hinted that mailing a questionnaire to respondents has shortcoming of low response. To ensure that the contents of the questionnaire measured the subject being investigated, a pilot study was done using contractors in the vicinity of the investigator and relevant amendments were made.

The other measure included presenting introduction letter to participants explaining to them the aim of the study and politely requesting the respondents to answer the questionnaire. It was made clear to participants that their individual response in this research was valuable. It was also clearly stated that their participation in the survey was voluntarily and were not forced to answer the questions and could withdraw from the survey at any time. The participants were assured that the study was not associated with any endangerment or treat so it was safe to participate in it. Respondents were also made aware that the information collected was purely for academic use and confidentiality was maintained. This letter is indicated as Appendix A

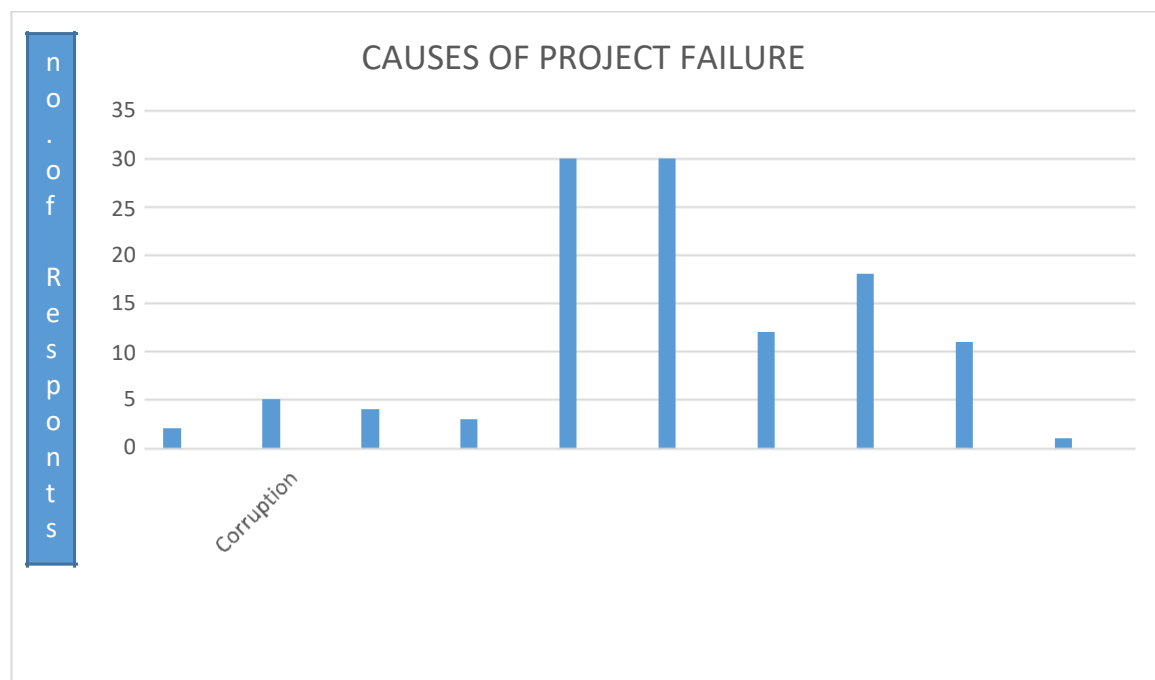
Yet another measure taken by the researcher was to constantly make follow ups to recipients through telephone calls. Several phone calls were made and some responded to the questionnaire.

Lastly the researcher hand –delivered the questionnaire to contractors she could physically get in contact with to get them answer the questionnaire. This was a very tedious process considering the distribution of the population in Gaborone and it yielded some results.

IDENTIFYING CAUSES OF PROJECT FAILURE

The first specific objective of the research study was to identify causes of project failure. Section C of the questionnaire was used to answer this objective. In an open ended question respondents were asked to list the causes of project failure according to their views. Factors listed were: corruption, poor work ethics, procurement delays, late payment of project funds, poor planning, poor communication, poor risk management, budget overruns, poor expertise, lack of resources and poor project management. The response of 47 respondents to this question is illustrated in the bar chart 4.2 below:

Chart 4.2: CAUSES OF PROJECT FAILURE



2 contractors indicated that poor risk management causes project failure in Botswana.5 contractors indicated that corruption was the cause of project failure.4 respondents were concerned about late payment of project funds and 3 indicated that poor work ethics was the problem. 30 respondents indicated that budget overruns and lack of resources were the main causes of project failure in Botswana.12 respondents listed poor planning as the main reason for project failure.18 of the contractors said poor expertise was a problem, 13 respondents put poor project management as the cause and only 1 respondent indicated the poor communication cause project failure.

Ranking the causes

The second specific objective of the research study was to rank the causes of project failure according to the respondents. Section B of the questionnaire was used to answer this objective.

10 factors taken from literature review were subjected to the views of 47 respondents. These do not represent the inventory of all causes of project failure. Contractors were asked to rate the factors using a 5-point Likert scale.

The result of the ranking of the factors causing project failure according to the respondents is illustrated in table 4.3 below:

Table 4.3 Ranking Causes of project failure

VARIABLES	MIN	MAX	MEAN	SD	RANK
POOR RISK MANAGEMENT	2	5	3.5		6
BUDGET OVERRUNS	2	5	3.9		3
POOR COMMUNICATION	1	5	3.1		9
POOR EXPERTISE	1	5	3.7		4
TIME OVERRUNS	2	5	3.6		5
PROJECT SCOPE	1	5	3.3		7
POOR PLANNING	1	5	3.3		7
DISPUTES	1	5	3.1		9
POOR PROJECT MANAGEMENT	2	5	4.1		2
LACK OF RESOURCES	2	5	4.4		1

The results indicate that ‘lack of resources’ was ranked first on the list with a mean index of 4.4. This is closely followed by ‘poor project management’ with a mean index of 4.1. Budget overruns was ranked third at 3.9. Fourth on the list was ‘poor expertise’ and ‘poor planning’ at a mean index of 3.7. ‘Time overruns’ was placed at position 5 at mean index of 3.6, followed by ‘poor risk management’. ‘Project scope’ and ‘poor planning’ were both ranked the same at a mean index of 3.3. At the bottom of the list the contractor’s ranking place ‘disputes’ and ‘project scope’.

Test of Agreement among Respondents

The third specific objective of the research was to assess the agreement of the contractors in ranking the causes.

It is crucial in this study to establish that the rankings provided by contractors were not due to chance or some form of biasness but shows the true scenario of causes of project failure in Botswana. Spearman’s rank correlation was used to test the level of agreement among contractors on the 10 factors causing project failure.

According to Fadiya et al (2012) Spearman’s correlation is one of the statistical tools used which implies that it can be used even when the distribution was not normal, therefore it is

good to use it to rank the items. The correlation between two variables is denoted by the letter 'r' and quantified with a number between -1 and +1. Zero indicates that there is no correlation and a negative number denotes inversely related. The Relative Importance Index was used to rank the perception of relative importance using the formula:

$$RII = \frac{\sum W}{N \cdot A}$$

W = weight given to each variable

N = the total number of respondents in this study

A = the highest weight

The result of this analysis is illustrated in table 4.4 below:

Table 4.4: Test for correlation

VARIABLES	N	A	W	RII	RANK	%
POOR RISK MANAGEMENT	47	5	3.5	0.74	6	74%
BUDGET OVERRUNS	47	5	3.9	0.83	3	83%
POOR COMMUNICATION	47	5	3.1	0.66	9	66%
POOR EXPERTISE	47	5	3.7	0.79	4	79%
TIME OVERRUNS	47	5	3.6	0.77	5	77%
PROJECT SCOPE	47	5	3.3	0.70	7	70%
POOR PLANNING	47	5	3.3	0.70	7	70%
DISPUTES	47	5	3.1	0.66	9	66%
POOR PROJECT MANAGEMENT	47	5	4.1	0.87	2	87%
LACK OF RESOURCES	47	5	4.4	0.94	1	94%

The values of the Spearman's rank correlation coefficient shows that there is relatively good agreement among contractors on each of the factor causing project failure. The highest degree of agreement on a variable is 94% agreement on lack of resources. This means that 44 of the 47 contractors have ranked lack of resources as having strong to very strong effect on project failure. No one ranked the factor as having no effect on project failure. Only 1 respondent ranked the factor as having little effect and 2 respondents gave it moderate effect. The lowest degree of agreement was 66% that was given to disputes and poor communication as having moderate effect on project. For the variable of disputes 5 respondents had ranked the variable as having no effect, 7 had given it little effect, 19 ranked it as having moderate effect, only 4 ranked it as having strong effect and 12 had given the variable very strong effect. This means that the highest agreement for disputes was on moderate ranking since 40% of the respondents put the variable at moderate effect.

4.3 QUANTITATIVE ANALYSIS

Quantitative research deals with measurement of data either by study or experiments that will be subjected to statistical treatment. According to Creswell (2014) quantitative procedures include the processes of obtaining, evaluating, interpreting, and writing the results of a survey. This method of research can be deductive or objective and it comprises of numbers and quantification in collecting and analyzing data. Quantitative research method counts on the norm of verifiability that means validation, verification, support or evidence. It deals with measurement, and gives numerical events according to rules. The quantitative approach comprises of bringing out of data in numeric form that can be exposed to rigorous quantitative analysis in formal. (Kothari, 2006)

According to Yauch & Steudel(2003), the quantitative survey method has two significant advantages. The first advantage is that it can be ordered and analyzed quickly. One does not have to be at the organization trying to administer the survey, and the responses can be generated within a short period of time. Second advantage is that numerical data obtained through this approach allows for a contrast between organizations or groups and also allowing determination of the extent of agreement or disagreement between respondents.

4.4 RELIABILITY AND VALIDITY

One of the major request of any research process is the reliability of data and findings. According to Phelan and Wren (2005) reliability is the extent to which the research instrument generates unchanging and reliable results. For a quantitative study the researcher has to develop an assessment tool to be administered in the same way to all participants; in this study a questionnaire was sent to respondents through email. The tricky question here is if the measuring instrument measured what it was supposed to measure. The measuring instrument needs to be replicable or repeatable of the results. Joppe (2000) defines reliability as the extent to which results are the same over time and are a correct representation of the total population under study. If the results of the study can be reproduced under a similar methodology then the research instrument is considered to be reliable. The two types of reliability in a quantitative study defined by Kink and Miller (1986) are as follows;

1. The steadiness of a measurement overtime
2. The likeness of measurement within a given time period.

Validity on the other hand determines whether the research instrument measures that which it was intended to measure. According to Zikmud (2003) validity assess whether the question is measuring what it intended to measure; it also include repeatability that is the ability of the questionnaire to produce consistent results whenever administered. The data collected in this study was reliable and valid as respondents that were selected for the survey were active contractors. Similarly Bolarinwa (2019) argued that validity denotes the extent to which a measurement measures what it is supposed to measure.

Polite & Beck (2004) define the validity of a questionnaire as the degree to which the measuring tool measures what it was intended to measure. The questionnaire should effectively cover all

objectives of the research. Face validity and content validity are the validity issues most frequently reported in the literature (Parahoo, 2006). Face validity basically checks that the questionnaire seems to measure the concept being tested and this will be tested by getting friends to test-run the instrument to see if the questions appear to be relevant, clear and unambiguous as outlined by Jones & Rattray (2010).

According to Kothari (1985), content validity can be checked by using a group of people who can check how well the measuring instrument meets the standards. Parahoo (2006) pointed out that a content validity test ensures that there are enough relevant questions covering all objectives of the study and that irrelevant questions are not asked.

The two Validity tests are;

1. Internal Validity which refers to how correctly the measures taken from the research actually quantify what was designed to measure.

2. External Validity refers to how accurately the measure obtained from the study sample describes the reference population from which the study sample was drawn.

The disadvantage of using a questionnaire to collect data is that it affects the validity of the research findings. In order to improve validity and content of the questionnaire a pilot study was performed with some contractors in Tutume village before the final questionnaire was emailed to contractors recruited for the survey.

In order to ensure validity of the measuring instrument, the variables used in the questionnaire were taken from literature review. The questionnaire was further piloted to ensure construct validity.

Reliability was maintained by giving out the same questionnaire to all respondents through the data collection process.

4.5 CORRELATION

Mathematical development of correlation is attributed to Karl Pearson. Leedy and Ormrod (2001) argued that correlation is identifying the connection between two or more variables in the same population or between variables in two populations. Once correlation has been established through a survey, findings can be used by researchers globally to make guesses and create hypothesis for future research. The purpose of correlation is to explore the extent to which the difference in one characteristic is in two or more variables.

Furthermore if correlation occurs in one variable (Y) increases then another variable (X) increases or decreases. Quantitative research has two major distinctions: (a) Independent and dependent variable and (b) experimental and correlation methods. In correlation analysis the correlation coefficient 'r' is a dimensionless number whose value ranges from -1 to +1. A value towards +1 indicates a positive relation and a value towards -1 indicates a negative relationship. When there is a normal distribution the Pearson correlation is used whereas in a non-normal distributed data, Spearman's correlation is used.

In this study another objective was to measure the degree of agreement among contractors on the ranking of causes of project failure in Botswana. Results for correlation are indicated in Table 4.4

The values of the Spearman's rank correlation coefficient shows that there is relatively good agreement among contractors on each of the factor causing project failure. The highest degree of agreement on a variable is 94% agreement on lack of resources. This means that 44 of the 47 contractors have ranked lack of resources as having strong to very strong effect on project failure. No one ranked the factor as having no effect on project failure. Only 1 respondent ranked the factor as having little effect and 2 respondents gave it moderate effect. The lowest degree of agreement was 66% that was given to disputes and poor communication as having moderate effect on project. For the variable of disputes 5 respondents had ranked the variable as having no effect, 7 had given it little effect, 19 ranked it as having moderate effect, only 4 ranked it as having strong effect and 12 had given the variable very strong effect. This means that the highest agreement for disputes was on moderate ranking since 40% of the respondents put the variable at moderate effect.

4.6 CONCLUSION

In conclusion the empirical data collected from 47 respondents was analyzed and generated results that translated quality information for this study. The survey that was done in chapter 3, its data was analyzed and findings explained in terms of the main study. In this chapter the findings are subjected to statistical tools and results are fully discussed.

CHAPTER 5: DISCUSION, CONCLUSION AND

RECOMMENDATIONS 5.0 INTRODUCTION

This chapter concludes the research study. Here the research design, methodology, research problem, hypothesis and survey findings are re-visited and final conclusions drawn. In addition an overview of the study is given and recommendations are provided. This chapter is intended to make the reader understand why the study was important as it presents the larger significance of the study. It gives a synthesis of the findings as informed by the objectives and the discussion.

5.1 DISCUSION

IDENTIFYING CAUSES OF PROJECT FAILURE

In identifying causes responsible for project failure in Botswana contractors have identified the following causes: corruption, late payment of project funds, procurement delays, poor risk management, poor work ethics, budget overruns, lack of resources, poor planning ,poor expertise, poor project management and poor communication. The study used a quantitative method of research to collect responses from 47 contractors registered with PPADB. Ahady et al (2017) has alluded that similarities exist among factors causing project failure but the factors the contractors have pointed out are the most common ones. Damoah et al (2015) in his study identified corruption and delay in payments as some of factors causing project failure. Similarly Kariuki (2000) in his survey poor planning, poor communication, lack of resources and unrealistic budgets were among the major causes.

FACTORS EXPLAINED

Corruption

This factor was linked to awarding of tenders. Contractors felt that the awarding of tenders was not fair as tender projects were awarded to the same businesses over and again. This does not allow other contractors to grow. Damoah et al (2015) and Igwe and Ude (2018) had listed corruption as among the causes of project failure in Ghana situation

Late payment of project funds

This affected project delivery as sometimes the contractor would not be able to pay workers or procure materials needed for project delivery. From literature review several authors have indicated this variable as one of the causes. Damoah et al (2015), Wasim and Khalid (2018) listed late payment of project funds as an issue.

Procurement delays

This was largely attributed to the client as the procurement procedures were too cumbersome and delays the project implementation. Ogunmola (2015) sited procurement delays as among the causes of project failure.

Poor work ethics

The contractors lamented that some contractors cause project failure as they do not have work ethics. This is indicated by contractors using mobilization fund for other reasons than project implementation. This factor has not been noted in literature review by any author.

Lack of resources

This factor cause's failure as sometimes contract will be given a project but will be not be in position to deliver due to unavailability of cash flow, machines to carry out the project knowledgeable human resource. Many authors have noted this cause including Hamzah et al (2012), Ahady et al (2017) and Sinesilassie et al (2016).

Poor project management

There is no commitment to doing projects, wrong selection of project teams and conflicting project activities. This is evidence by contractors using mobilization funds for wrong things. Several authors have sited poor project management as an issue, these include Assaf and Al-Hejji (2006), Sambasavian and Soon (2007), Damoah et al (2015) and Ahady et al (2017)

Budget overruns

This factor is closely related with unavailability of contractor cash flow. Under budgeting or costing less for the work that needs to be done causes this problem. Contractors are encourage to do proper estimates for every work to be done. Authors who indicated this factor in project failure are Botlhale (2017), Asiedu et al (2016), Ahady et al (2017 and Kariuki (2001)

Poor planning

There is improper planning of project, this is evidence by the inability to put in place strategy for executing a project by many contractors. Planning involves decision making and choosing alternative course of action to accomplish a project. This factor seem to be the most common cause in most studies as it was indicated by many authors including Kariuki (2001),Sambasivan and Soon (2007),Sinesilassie et al (2010),Damoah et al (2015),Adebisi et al (2018) and Wasim and Khalidi (2018)

Poor expertise

This factor contributes to contractors doing shoddy jobs due to engagement of unskilled labor and personnel in order to maximize profits. This situation is more pronounce in the construction industry where cheap labor is normally sourced from foreigners from neighboring country. Contractors engage Project managers who are not qualified for the job. Professionalization of project employee is the solution.

Poor risk management

Risks are uncertain events which when they occur they have negative effect on project goals, time, costs and quality. Omitting potential risk management issues is common in the way contractors do their job. Having no plan should disaster strike. Project managers must include risk in their organizational issues.

Project scope

When the project scope of the work keeps changing and in the end it causes delays and contributes to budget overruns.

Poor communication

Lack of clear directives between the user department and the contractor can result in giving the user the service he/she does not need. Communication entails obtaining input from the users of the project. Rwelamila et al (1999) and Kariuki (2001) hinted about this factor being a cause of project failure in their research

RANKING THE CAUSES

The second objective of the study focused on ranking the causes of projects failure. A list of 10 factors adapted from literature review were presented. Contractors were asked to rate these causes using a 5-point Likert scale. Where 1= no effect, 2= little effect, 3=moderate effect, 4=strong effect and 5 =very strong effect.

The contractors have ranked these factors in this way; 1. Lack of resources.2. Poor Project Management.3. Budget Overruns.4. Poor Expertise.5. Time Overruns.6. Poor Risk Management.7. Project Scope .7. Poor Planning. 9. Poor Communication 9. Disputes. In their research Wazim and Khalidi (2018) got totally a different trend when ranking the causes of project failure in Pakistan, incompetence of contractors topped the list. According to Mohd et al (2007) financial problems was the first on the list

TEST OF AGREEMENT AMONG CONTRACTORS

In addition to ranking the factors, the degree of agreement of ranking the factors by contractors was also tested. The relative importance index of each factor was calculated using the Spearman's rank correlation and it was found that there was relatively good agreement among contractor on each factor. This also emphasize the validity and reliability of the findings of this research. Idekeshi et al (2014) also in his study tested the agreement of respondents on ranking the causes of project failure and there was good agreement.

Findings with the regard to the hypothesis

The two hypothesis that were tested as to agreement among respondents were; the null hypothesis that contractors did not agree on the general causes of projects failure and the alternative hypothesis that there was agreement among contractors on the causes of project failure. The findings indicate that the alternative hypothesis was true.

5.2 CONCLUSION

Similarities exist among factors causing project failure. Common factors that affect project failure are funding, planning, expertise and communication. This study highlights factors causing project failure in Botswana. The research has proved that lack of resources and poor project management have strong effect in causing project failure in Botswana.

5.3 RECOMMENDATIONS

Several recommendations were formulated influenced by the results of the research;

Respondents felt that the system of awarding tenders in the government departments whereby projects are normally given to the lowest bidder must be changed. It does not only make contractors to do shadowy jobs because of lack of cash flows; it also contribute to failures in projects. Some contractors will purposively under quote for a project and when given mobilization funds will simply take the money and abandoned the project. Respondents even decried that there is corruption in awarding of tenders such that tenders are given to the same contractors over and again. This does not help the new businesses to grow and penetrate the market. Contractors are calling for a better framework of procurement procedures.

Another recommendation put forward was monitoring of projects by contractors, user departments and stakeholders. The issue here was that contractors are fond of hiring unskilled labor and personnel in order to maximize profits. In building construction they prefer to engage foreigners from neighboring country as they provide cheap labor. Project Managers employed to oversee project have no qualifications of such. If contractors were closely monitored.

Yet another recommendation was to empower contractors on the issues of project management. Most contractors do not know how to run a project and they do not have skills. These are the ones who would be given projects and they fail to deliver. Having project management skill should be a pre-requisite to be given a project

5.4 POSSIBLE AREAS FOR FURTHER RESEARCH

Information collected from this survey is hoped to be beneficial to both academics and practitioners. In academics the study has given some insights and thoughts about how contractors view project failure. In a way it has added to existing body of knowledge dealing causes of project failure and can also be used to guide those dealing with project management. Moreover findings will contribute positively to public sector project implementation of correct strategies to put in place in order to carry out a project.

This survey investigated all types of contractors and it was not specific to any area of application. Further research could be done to investigate the obstacles of engaging in manufacturing industry in the country.

This was a country-specific contribution, but it can be applied to many countries with similar systems. Good practices reduce costs and produce timely results. Projects delivered on time on the other hand will save the government a lot of money.

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5.5 APENDICES

APPENDIX A- CONSENT LETTER

To: Research Participants

From: Thandi Job
Student Number: 1817408
Contacts: 72151829
Email: sethathojob@gmail.com
Fax: 2987234

22nd July 2019

SUBJECT: INFORMATION LETTER TO PARTICIPANTS

Dear Sir/Madam

I am studying towards a Master's Degree in Business Administration with Botho University; and as a requirement I am undertaking a research into the causes of project failure in Botswana public projects from the point of view of contractors. My research is titled 'Causes of project failure in Botswana public project-contractors perspective'

I would be grateful if you could take time to complete the survey questionnaire, which will take less than 20 minutes. Kindly note that by responding to the questionnaire you would be providing valuable insight into future prevention of project failure in Botswana. Your participation is voluntarily and you may withdraw at any time. The research is entirely free from any form of danger or risk and it is safe to partake in this study.

Please be assured that all your information and responses and any other information you provide will be treated with utmost confidentiality and is only used for academic work.

Thank you for your cooperation and the time you have spent on this research.

Yours faithfully

APPENDIX B-EDITOR CONFIDENTIALITY AGREEMENT

13th September 2016

This is to certify that I LORATO MACHONGO have edited this research dissertation titled: Causes of Project failure in Botswana: Contractors' perspective.

The dissertation was edited on behalf of Thandi Job.

I also declare that the dissertation was edited in confidentiality, and that no information shall be disseminated to any party without the consent of the researcher.

APPENDIX C- RESEARCH QUESTIONNAIRE

SURVEY QUESTIONS

Section A: Company & Respondent's Profile

INSTRUCTION: Please provide the following information by placing a tick in the box provided “√” Respondent required to choose only one answer that is most suitable

1. What is your gender?

☐	☐
F	M

2. What is your age?

☐	☐	☐	☐	☐
>20	20-29	30-39	40-49	< 50

3. What is your position in the company?

☐	☐	☐	☐
Manager	Estimator	Architect	Supervisor

☐ Other (specify)

4. What are your professional qualifications

☐	☐	☐	☐	☐
Cert	Diploma	Degree	PhD	Not trained

5. What is the category of the company?

☐	☐	☐	☐	☐	☐
OC	A	B	C	D	E

6. How long have you worked for the company?

☐	☐	☐	☐
>2	2-5	6-9	<10

7. How long has the company been in existence?

☐	☐	☐	☐
>5	6-9	10-15	<15

8. What is the area application undertaken by the company

☐	☐
Construction	Manufacturing
☐	☐

Services IT &Tele Other (specify)

How many projects have the company handled from 2012-2016? >2 3-5 6-9
<10

10. What is the company performance success?

Good

Moderate

Bad

Section B: Factors influencing project failure in Botswana

INSTRUCTION: Please rate the importance of factors in influencing project failure by choosing only one of the number 1 to 5 according to the following range:

No effect	Little effect	Moderate effect	Strong effect	Very Strong effect
1	2	3	4	5

FACTORS	RATINGS				
11. Poor Risk Management	1	2	3	4	5
12. Budget Overruns	1	2	3	4	5
13. Poor Communication	1	2	3	4	5
14. Poor Expertise	1	2	3	4	5
15. Time Overruns	1	2	3	4	5
16. Project Scope	1	2	3	4	5
17. Poor planning	1	2	3	4	5
18. Disputes	1	2	3	4	5
19. Poor Project Management	1	2	3	4	5

20. Lack of resources	1	2	3	4	5
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Section C: Respondents view on project failure and recommendations

21. According to you what are the three main causes of project failure in Botswana?

22. Do Contractors contribute to project failure in Botswana?

☐
☐

YES

NO

If yes how?

23. At what stage does project failure usually occur?

☐
☐
☐

Design Bidding Pre-Construction

☐
☐
☐

Procurement

Construction

Post-Construction

24. What can be done to enhance project success in Botswana?

Thank you for your participation in this study.

APPENDIX D: Pilot Study Output

VARIABLES	CATEGORIES	FREQUENCY	%
Gender	Male	5	100
	Female	0	0
	Total	5	100
Age	> 20	0	0
	20-29	2	40
	30-39	1	20
	40-49	2	20
	<50	0	0
	Total	5	100
Position	Manager	2	40
	Estimator	0	0
	Architect	1	20
	Supervisor	0	0
	Other	2	40
	Total	5	100
Qualifications	Not trained	0	0
	Certificate	0	0
	Diploma	2	40
	Degree	3	60
	PhD	0	0
	Total	5	100
Categories	OC	2	40
	A	0	0
	B	2	40
	C	0	0
	D	0	0
	E	1	20
	Total	5	100
Experience	>2yrs	1	20
	2-5yrs	4	80
	6-9yrs	0	0
	<10	0	0
	Total	5	100
Company existence	>5yrs	3	60
	6-9yrs	1	20
	10-15yrs	0	0
	<15yrs	1	20
	Total	5	100

Area of application	Construction	4	80
	Manufacturing	0	0
	Services	0	0
	IT&Tele	0	0
	Other	1	20
	Total	5	100
Projects undertaken	>2	1	20
	3-5	3	60
	6-9	0	0
	<10	1	20
	Total	5	100
Company performance	Good	4	80
	Moderate	1	20
	Bad	0	0
	Total	5	100

APPENDIX E: Research Study Output

VARIABLES	CATEGORIES	FREQUENCY	%
Gender	Male	35	75
	Female	12	25
	Total	47	100
Age	> 20	0	0
	20-29	9	19
	30-39	17	36
	40-49	19	40
	<50	2	4
	Total	47	100
Position	Manager	18	38
	Estimator	1	2
	Architect	3	6
	Supervisor	6	13
	Other	19	40
	Total	47	100
Qualifications	Not trained	1	2
	Certificate	6	13
	Diploma	24	51
	Degree	15	32
	PhD	0	0
	Total	47	100
Categories	OC	21	47
	A	6	13
	B	11	23
	C	2	4
	D	4	9
	E	3	6
	Total	47	100
Experience	>2yrs	10	21
	2-5yrs	26	55
	6-9yrs	2	4
	<10	9	19
	Total	47	100
Company existence	>5yrs	16	34
	6-9yrs	20	43
	10-15yrs	5	11
	<15yrs	6	13

	Total	47	47
Area of application	Construction	31	66
	Manufacturing	2	4
	Services	9	19
	IT&Tele	3	6
	Other	2	4
	Total	47	100
Projects undertaken	>2	6	13
	3-5	25	53
	6-9	7	15
	<10	9	19
	Total	47	100
Company performance	Good	32	68
	Moderate	14	30
	Bad	1	2
	Total	47	100