

Full Length Research Paper

Assessment of risk management practices in dangote cement factory, Ethiopia

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This study aimed to assess the risk management practices in Dangote Cement Factory, Ethiopia. Descriptive research design was employed in this study along with quantitative and qualitative research approaches. The total population was 353 of which 192 respondents were selected using simple random sampling technique. In addition to this, four managers were chosen for interview using purposive sampling technique. The primary information or data were gathered using structured survey which enclosed both open and close ended questions. Moreover, data were analyzed using both descriptive analysis like frequency and percentages and inferential statistics with the help of Statistical Packages of Social Scientist 20 version computer software. The findings of this study shown that there was no awareness created regarding training of the risk management process in the company. Moreover, packing plant risk and material risk were the most faced risks in Dangote Cement Factory. Finally, the study recommended that, the company is better to provide awareness creation, and continuous training, fulfilling personal protective equipment and establishing safety supervision staff committees.

Key words: Risk, risk management, dangote cement factory, Ethiopia.

INTRODUCTION

Risk is inevitable alike the common death of people and companies' taxes. It is one of the rare things in human life that is unavoidable. All kinds of businesses, regardless of their size and shape, in any environments they function and no matter what goods and services they deliver, are continuously exposed with a multiple of risks, large or small. Certainly, businesses can only flourish by effective risk taking as argued by (Osborne, 2012). Besides, risk arises due to uncertainties, which in turn arises due to changes that could take place in the economic, social and political environments and as well as due to lack of information availability regarding such changes. Risk is

also an exposure to a transaction with loss, which occurs with some probability where such loss can be expected, measured and minimized.

In financial institutions and manufacturing companies, risk results from variations and fluctuations in assets or liabilities or fluctuation both in incomes from assets or payments on liabilities or variation in outflows and inflows of cash. In today's world, banks are facing various types of risks in the course of their service delivery and hence, a bank manager should ensure that he/she has a clear understanding of these risks to take sound measures effectively manage them. Therefore, bank managers

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have to be “risk intelligent”. Risk intelligence defined as the ability to make informed decisions based on past, current and future data (Whipple, 2010). In banks and financial institutions, risk considered the most important factor of earnings.

Therefore, they have to balance the relationship between risk and return. In reality, it can be say that management of financial institution is nothing but management of risk. Managing financial risk systematically and professionally becomes an even more important task. Rising global competition, increasing deregulation, introducing of innovative products and delivery channels has pushed risk management to the forefront of today's financial landscape. Ability to measure the risks and take appropriate position will be the key to success. It can be said that risk takers will survive, effective risk managers will prosper and risk averse are likely to perish.

According to Osborne (2012), risk management has an essential role in one's decision-making, whether or not it regards to start-up of business, developing strategies, taking advantage of opportunities, managing ones several projects or in one's business on a daily bases operations. Risk management can support to rationalize to the management group, employees, business stakeholders, investors, creditors and clientele.

In addition the research attempts to examine the incorporation of a formally delegated risk management body within a company structure, along with the necessary resource allocation, that is based on an established risk management policies, strategies and procedure which provides the guideline for the process of defining the risk appetite and identify and measure the major risks of a company in order to treat and exploit these risks. In addition, the research examines the existence of a periodic internal audit review that ensures the implementation of risk management policies and procedures.

Problem statement

Manufacturing companies currently working in a situation marked by rising customer preferences, growing regulatory necessities, technological revolution and increasing competition (Ariful and Tedford, 2012).

In Ethiopia, the competition within the manufacturing industry has generated a greater concern to manage the entire activities of banks in order to avert any possible risks that may occur. The regulatory body believes that the growth should be matched with strong risk management Practices. However, the previous studies on risk management practices of manufacturing in Ethiopia were highly undertook. The exception to this argument is that the available various studies gave focused to assess types of risks. For instance, Fasika (2012) has investigated selected Ethiopian commercial banks operational risk management, Tefera (2011) has

studied on the effects of credit risk management regarding the effectiveness of commercial banks operating in Ethiopia, Liza (2018) identify the determinant of liquidity risk management of commercial banks in Ethiopia and risk management practice in commercial banks in Ethiopia, Haile (2016); JICA (2015).

Therefore, limited attention was given to the assessment of risk management practices on manufacturing companies. Furthermore few studies were conducted like; Debela (2009) on risk management practices in manufacturing companies in Ethiopia. Therefore, number of researcher studied risk which were faced in a manufacturing company mainly like; credit risk, liquidity risk, operational risk However, this study is aimed for the extension of the literature on this area by evaluating the several kinds of risks confronted including packing risk in manufacturing companies specifically on Dangote Cement Factory and intends to fill the existing literature gap.

Basic study questions

For this study, the following basic research questions are developed. These are:

- 1) What are the nature, structure and strategies of risk management practices of Dangote Cement Factory?
- 2) What kind of risks is exposed in Dangote Cement Factory?
- 3) Are the staffs in Dangote Cement Factory familiar with the concepts of risk and its associated management?
- 4) What are the risk management mechanisms used by Dangote Cement Factory?

Research objectives

General objective

The general objective is to investigate the risk management practice in Dangote Cement Factory.

Specific objectives

In connection with the above overall objective of the study, the listed precise objectives were designed to solve the basic research questions.

- 1) To evaluate the nature of risk management practices, strategies and objectives mostly used in Dangote Cement Factory.
- 2) To identify the type of risk exposures faced by Dangote Cement factory.
- 3) To ascertain the nature of risk management practice in Dangote Cement Factory.
- 4) To identify the process adopted by the Dangote Cement Factory for risk management.

Table 1. Summary of types of risks.

| Types of risk | Author(s) | Definition(s) |
|-----------------------|--------------------------------|---|
| Credit risk | Greuning and Bratanovic (2009) | -is the probability that a borrower of a financial instrument if an individual, a corporation, or a state will fail to pay principal and other investment related interests as per the terms stipulated in a credit contract |
| Liquidity risk | Gup and Kolari (2005) | -is defined as the hazard to earnings or capital related to a bank's capacity to meet its responsibilities to creditors and the wants of debtors by changing assets into cash swiftly with least loss, being able to borrow moneys when wanted, and having funds accessible to execute gainful securities transaction deeds |
| Market risk | Saunders et al. (2006) | -refers market risk as the chance of forfeiture to bank produced by the variations in the marketplace conditions |
| Interest rate risk | Gleason (2000). | -refers the possible adverse effect on the net interest revenue and is the exposure of an organizations financial situation to the changes in interest rates. |
| Foreign exchange risk | Raghavan (2003) | -defines as the risk that a bank could expose to loss as a result of hostile exchange percentage undertaking throughout a period in which the business has open position, either spot or forward. |
| Operational risk | (Njogo, 2012) | -referred as the hazard of straight or unforeseen loss resulting from insufficient or unsuccessful interior processes, persons and schemes or from outside events |

Source: Compiled by the researcher.

LITERATURE REVIEW

Theoretical literature

this part of the study talks about the different theoretical aspects of risk like its definition, types, management and others as well as empirical issues and works as to the risk management practice in the banking industry discussed.

Defining risk

Risk is all about uncertainty. That is inability to precisely determine what will occur in the future, as the future is full of uncertainty. With regard to what is a risk Osborne (2012) has claimed that, what people stressing is a future difficulty, opportunity or the possible future consequence of a decision that can be decided today. And also each and every decision pass or any act taken comprises of some sort of risk. Furthermore, Osborne (2012) has indicated that, risks can be occurred because of peoples own business activities or because of outside forces like as regulations, market factors, and exchange rate volatilities, the actions of others or can be weather conditions.

Types of risk

Banking is the bridge between money savers on one side and the financial seeking corporate entrepreneurs on the other side. As a result, in the procedure of providing financial services, banks can undertake numerous types of risks which might both financial and non-financial. Furthermore, this risk characteristic in the delivery of their facilities fluctuates from one product or service to the

other (Adarkwa, 2012). Various writers have categorized these risks in different manners to form the structures for their investigations (Table 1).

Process of risk management

It is significant that a risk managing policy can be formed early in a project and such risk could be persistently solved through the project life cycle. Risk management contains numerous related activities which includes risk: planning, identification, analysis, response, and monitoring and control as indicated by Kerzner (2017).

Risk planning

Risk planning process explains how to practice risk management frame's sub-processes. Without having risk planning, managers do not know accurately what, when and how to do.

This process makes the company for risk management like developing strategies, forming the process which should be engaged and their instruction, any other properties which may be needed, who is accountable for precise procedures and could even contain trainings or discussions for enlightening the risk management professionals of personnel (PMBOK, 2008). This kind of plan is crucial to communicate with and get agreement and backing from other all participants to safeguard the risk management procedure is reinforced and achieved efficiently throughout the project life cycle.

Identification of risk

Risk identification is an important step compared with

another steps in the risk management procedure like analysis and responses are the only fruitful probable risks identified accurately (Toakley and Ling, 1991; Yang et al., 2005).

According to Chapman (2011), the purpose of this step is to identify both the threats to the business with the potential of reducing and eliminating the probability of the firms attaining its goals, and the chances, which may improve business firms' performance. External factors which may include economic, political, socio-cultural, technological and environmental as well as internal factors including infrastructure, personnel, process and technology may affect successful achievement of objectives (Marchetti, 2011).

PMBOK in similar way defines risk identification as the process of defining which risks could impact the project and recording their features. According to Kerzner (2017), risk identification should remain through all the project stages and is vital that such identification process dealt with the foundation of the risk than the incident itself or the effect it possess.

This is since the risk taker could do something about the bases of the risk, but not actually do very plentiful about the occurrence or the impacts (Roberts and Wallace, 2004).

Tayntor (2010), states that there some probable methods for identifying risks. As risk identification is a process of uncovering potential risk according to the PMBOK (2008).

The output is a risk register which clearly defines and explains each risk, which is referred to and incrementally developed throughout the overall risk management process (Chapman, 2011; Jordan, 2013). Also risks can be analyzed using different qualitative and quantitative analysis.

Qualitative analysis

Once high risk has been identified and listed, the quality assurance tests need to be incorporated in the risk register document. The first procedure is to give a brief, clear explanation of each risk to avoid ambiguity and confusion. After a risk has been identified, it should be categorized according to its source (there should be enough sections to cover as many risks as possible), and a negative event that would expose the risk should clarified (PMBOK, 2008).

Quantitative analysis

While the qualitative risk assessment is an excellent tool for assessing individual risks, quantitative risk analysis analyzes the combined impact of project risks. This is usually the end of an accurate assessment of the overall risk of a project, and should be done where necessary

(Hillson and Murray-Webster, 2017). Two popular Qualitative risk analysis techniques are the Monte Carlo Simulation and the use of the decision tree.

Review of empirical literature

An efficient risk management helps construction companies to classify and measure risks and to consider risk control and risk reduction strategies. Construction companies that can manage risk successfully and proficiently enjoy financial savings, and greater productivity, enhanced success rates of new projects and well decision making. Straw (2015), states that the area of risk and uncertainty is particularly important in project management and is a natural element of projects. That is why risk management can be acceptable on nearly all projects whereas, the level of implementation could differ from project to project, based on such factors like size, kind of project, who the client is, in connection to the corporate strategic design, and company culture. Risk management is mainly vital when the general risks are high and a excessive deal of ambiguity exists. In the past, we treated risk as a "let's live with it." Nowadays, risk management is a main part of overall project management. It obliged us to emphasis on the forthcoming where uncertainty occurs and develops appropriate plans of action to avoid potential matters from unpleasantly impacting the business project Kerzner (2017).

A Survey was conducted by Frezewed (2016), regarding practice of project risk management in the case of Batu and Dukem town water supply projects and it revealed that risk management knowledge area is practiced little in the projects. The study also showed that there is no practice of assigning a risk manager, whose primary responsibility is managing risks. The same study sited that, other studies done in the country in the areas have also found similar findings. According to Yimam (2011), the practice of risk management in Ethiopia is very little and undeveloped.

A study conducted by Debela (2018), the practice of construction risks management with insurance in the Ethiopian federal road projects exposed that formal risk management is failed to be practiced very well. The road construction perils are not be able to manage through recognized risk management scheme. Nevertheless, there are repetitive practices utilized to manage risks. Such old practices, although contribute to risk management, do not follow to the formal risk management procedures which contains risk management preparation, identifications, evaluations, reaction planning, and monitoring. The above discussion on theories and summary of findings of related studies clearly indicates that project risk management practice is important to lead projects towards success by reducing the negative impact of risks and uncertainties.

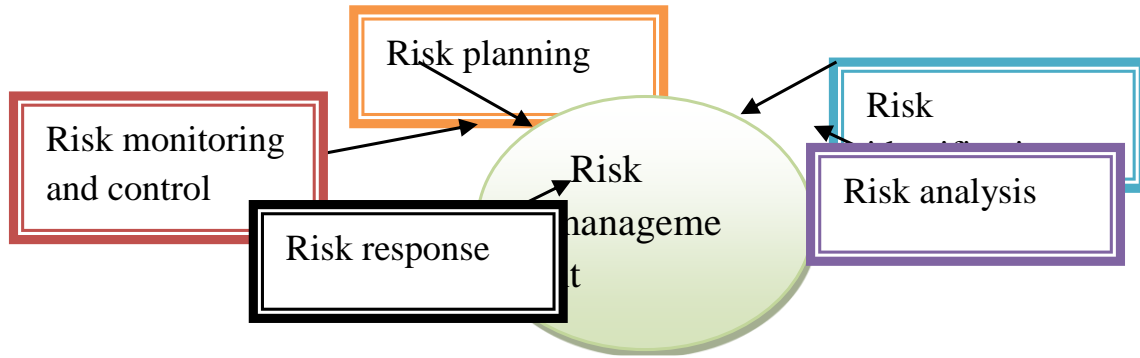


Figure 1. Own Conceptual Framework

Conceptual framework

Based on the above theoretical and empirical literatures the Figure indicated that conceptual frame work was developed for the purpose of the study (Figure 1).

METHODOLOGY

Research design

Research design reveals the research procedures used to generate important data for the research or dissertation. The research design was employed to describe the target population, sampling and sampling procedures. The methodology in data acquisition, techniques used to collect data and data analysis are also included in this research design. The descriptive research design was employed to describe the assessment of risk management practice in Dangote Cement Factory.

Research approach

Referring to Creswell (2009), there are three basic research approaches; these are quantitative, qualitative and mixed research approaches.

Source and method of data collection

In order to carry out any research activity, information or data would be gathered from proper source. According to Koul (2006), the reliable and consistent research, shows that the research was done by using suitable data gathering tools for increasing the creditability and value of research findings. The research used was primary data. The primary data collect both open-ended questions and closed ended questions likert scale in semi structured questionnaires.

Study population and sampling frame

Sampling can be defined as the process of selecting, from abundant large population, a group which desire to make generalized declarations so that the selected part represents the total populations (Leedy, 1989:158).

Among all department of the study company, five departments are the most faced by risk. Therefore, all employees of five

departments including agents of Dangote Cement Factory as target population of the study. The researcher considered all of these five departments of employees for this study as a population and to find out more information four position person (Manager of the company, assistant manager of the company, Head, of risk management and supervisor) was selected purposively. The researcher believed that from the fact that those who have close taking part in risk management practice than others.

Sample size determination

The sample size can be determined following Yammane’s formula (1967). The formula used to determine the sample size is: $n = N/1+N (e)^2$.

Where, n refers to the sample size, N is the population size, and e is the level of precision.5% level of significance/precision is chosen.

$$n = N/1+N (e)^2$$

$$n = 353/1+353(0.05)^2 = 188+4 = 192$$

Sampling proportional allocation

Stratified sampling methods, is next to identifying the sample size using the above written equation, the researcher exhibited the projected sample scope to the strata under the study. One of such method is referred to as proportional allocation. It is utilized when the size of the sample from particular strata is proportional to the size of the strata. In proportional sample allocation, a trivial sample took small strata, huge sample took large strata, and the sample size in each stratum must be proportional (Table 2).

$$nh = \frac{nN_h}{N}$$

$$N = \sum N_h = \text{total number of employees}$$

$$N_h = \text{total number of population size in stratum- h}$$

$$n = \sum n_h \dots \text{total number of sample}$$

- $n_h = \text{total number of sample size in stratum- h}$
- Stratum- $N_1 = 15$ –Sales and Marketing
- Stratum- $N_2 = 17$ - Finance
- Stratum- $N_3 = 135$ –Packing Plant

Table 2. Respondents Strata.

| S/N | St Departments | Population size | Strata |
|--------------|------------------------|-----------------|--------|
| 1 | Sa Sales and Marketing | 15 | 8 |
| 2 | Fi Finance | 17 | 9 |
| 3 | Pa Packing Plant | 135 | 72 |
| 4 | M. Material Management | 48 | 26 |
| 5 | Pr Production | 138 | 73 |
| Total | | 353 | 188 |

Source: own survey, 2020.

Table 3. Summary of reliability statistics (Cronbach's Alpha).

| Reliability statistics | |
|------------------------|------------|
| Cronbach's Alpha | N of Items |
| 0.814 | 31 |

Sources: SPSS Output, 2020.

Stratum-N₄= 48–Material Management
 Stratum-N₅= 138–Production

$$n_h = \frac{nN_h}{N}$$

$$n_1 = \frac{nN1}{N} = 188 * 15 \div 353 = 7.98 \approx 8$$

Where n₁ is sample size for sales and marketing

$$n_2 = \frac{nN2}{N} = 188 * 17 \div 353 = 9.05 \approx 9$$

Where n₂ is sample size for finance

$$n_3 = \frac{nN3}{N} = 188 * 135 \div 353 = 71.89 \approx 72$$

Where n₃ is sample size for packing plant

$$n_4 = \frac{nN4}{N} = 188 * 48 \div 353 = 25.56 \approx 26$$

Where n₄ is sample size for material management

$$n_5 = \frac{nN5}{N} = 188 * 138 \div 353 = 73.49 \approx 73$$

Where n₅ is the sample size for production.

Method of data analysis

Since this paper is the descriptive type of study, to achieve the objective of the study, collected data were examined with the help of Statistical Package for Social Scientists (SPSS) 20Version.

These descriptive statistics variables were analyzed using frequency and percentage.

Validity and reliability

Kothari (2004), states that Pilot testing was done to check the

reliability and validity of the instrument of data collection before using it. Validity is concerned with the extent to which a tool measures what it is expected to measure. Reliability on the other hand is concerned with consistency in measurement and can be studied through measuring the degree of uniformity between numerous measures of a hidden variable (Hair et al., 2006). The reliability of the items in the instrument was measured using Cronbach's alpha which is the most frequently used reliability test to measure internal consistency when using Likert scale.

In reference to Brymanan Bell (2003) Cronbach's Alpha reliability test was run in the data gathered to measure the consistency of the data. The overall Cronbach's alpha result of the 31 items was 0.814 (81.4%) which is still higher than the minimum alpha value set as acceptable (that is, 0.70). The Cronbach alpha result summary obtained from SPSS is indicated in Table 3.

RESULT AND DISCUSSIONS

Response rate

A total of 192 likert scale questionnaires including 5 open ended questionnaires were distributed to five different departments and four different person of Dangote Cement Factory by the researchers to collect primary data. Out of this, 157 questionnaires are completed and used for data analysis (Table 4).

A total of 157 questionnaires were returned with complete responses, which 7 were from sales and marketing, 9 were from Finance, 54 were from Packing plant, 22 were from Material management, 61 were from production departments, 1 was from Head of risk management, 1 was from manager, 1 was from assistant manager, and 1 from supervisor, which results in a response rate of 87.5%, 100%, 75%, 84.6%, 83.5%, 100%, 100%, 100%, 100% respectively. In general, out of 192 likert scale questionnaires including 5 open ended questioners 157 were returned which provides 82% response rate.

Respondents' demographic information

As shown in Table 5, 157 (100%) of the respondents were male and Zero of the respondents was female. Based on the information, the authors can infer that all respondents were male. This implies that there is no work force diversity which is not good for the organization since it seems gender biased. The level of education 127(80.9%), 30(19.1%) and 0(0%) were First degree, second degree and above and Diploma and below respectively. Based on the information the majority of the respondents' educational levels were first degree. This indicates that the organization is competitive in terms of having educated man power. The experience of the respondents were 84(53.5%), 67(40.5%) and 32(42.7%) were greater than 6 years, 3 to 5 years and 0 to 2 years respectively. So, this implies that majority of work experiences of the respondents were greater than six years.

Table 4. Response rate.

| | Sales and Marketing | Finance | Packing plant | Material Mgt | Production | Head, RM | Manager | Ass.Mgr | Supervisor | Total |
|---------------|---------------------|---------|---------------|--------------|------------|----------|---------|---------|------------|-------|
| Distributor | 8 | 9 | 72 | 26 | 73 | 1 | 1 | 1 | 1 | 192 |
| Returned | 7 | 9 | 54 | 22 | 61 | 1 | 1 | 1 | 1 | 157 |
| Response Rate | 87.5% | 100% | 75% | 84.6% | 83.5% | 100% | 100% | 100% | 100% | 82% |

Source: own survey, 2020.

Table 5. Demographic profile of the respondents.

| Gender of respondents | | | | | |
|--|-------------------------|-----------|-------|---------|--------------|
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Male | 157 | 100.0 | 100.0 | 100.0 |
| Respondents' Level of Education | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | First Degree | 127 | 80.9 | 80.9 | 80.9 |
| | Second degree and above | 30 | 19.1 | 19.1 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |
| Work Experience | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | 0 to 2 years | 6 | 3.8 | 3.8 | 3.8 |
| | 3 to 5 years | 67 | 42.7 | 42.7 | 46.5 |
| | Greater than 6 years | 84 | 53.5 | 53.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: own survey, 2020.

Table 6. Perception of respondents on strategic objective.

| The company considers risk management control among its strategic objectives | | | | | |
|---|-------------------|-----------|-------|---------|--------------|
| | | Frequency | % | Valid % | Cumulative % |
| | Strongly Disagree | 7 | 4.5 | 4.5 | 4.5 |
| | Neutral | 41 | 26.1 | 26.1 | 30.6 |
| | Agree | 69 | 43.9 | 43.9 | 74.5 |
| Valid | Strongly Agree | 40 | 25.5 | 25.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Perception of respondents on general risk management practice

As shown in Table 6, the existence of risk management control as one of the strategic objective, 7(4.5%) respondents were strongly disagree 0(0%) respondents disagree, 41(26.1%) respondents neutral, 69(43.9%) respondents agree and 40(25.5%) of the respondents were strongly agreed respectively. The result showed

that, risk management control was one of the strategic objectives of Dangote cement factory Ethiopia.

The company has clear risk management strategic plan, in the above Table 7, 2.5% responded strongly disagree, 15.3% said disagree, 20.4% said Neutral, 43.9% said agree and 17.8% of the respondents were said strongly agree. So most of the respondents agree 43.9 on the statement of the company has clear risk management strategic plan while the 2.5 least. This

Table 7. Perception of respondents on strategic plan.

| The company has clear risk management strategic plan | | | | | |
|---|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| | Strongly disagree | 4 | 2.5 | 2.5 | 2.5 |
| | Disagree | 24 | 15.3 | 15.3 | 17.8 |
| | Neutral | 32 | 20.4 | 20.4 | 38.2 |
| | Agree | 69 | 43.9 | 43.9 | 82.2 |
| Valid | Strongly Agree | 28 | 17.8 | 17.8 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Table 8. The Company has established risk management committee under each department.

| The company has established risk management committee under each department | | | | | |
|--|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| | Strongly disagree | 38 | 24.2 | 24.2 | 24.2 |
| | Disagree | 48 | 30.6 | 30.6 | 54.8 |
| | Neutral | 16 | 10.2 | 10.2 | 65.0 |
| Valid | Agree | 45 | 28.7 | 28.7 | 93.6 |
| | Strongly Agree | 10 | 6.4 | 6.4 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Table 9. There is brief risk management framework and guideline.

| Company's has brief risk management framework and guideline | | | | | |
|--|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| | Strongly disagree | 13 | 8.3 | 8.3 | 8.3 |
| | Disagree | 29 | 18.5 | 18.5 | 26.8 |
| | Neutral | 26 | 16.6 | 16.6 | 43.3 |
| | Agree | 53 | 33.8 | 33.8 | 77.1 |
| Valid | Strongly Agree | 36 | 22.9 | 22.9 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

implies that company has declared clear risk management strategic plan.

Respondents were requested to perception whether there is established risk management committee under each department of the company and their responses were in the Table 8 where 24.2% (38) of them strongly disagreed and 30.6% (48) disagreed while 10.2% (16) of them were still not certain whether there exists established risk management committee under each department or not. In contrast, 27.7% (45) of the respondents agreed 6.4% (10) of them strongly agreed even. From these results, it can be seen that majority of the respondents were not sure (not agreed) with the

existence of risk management committee under each department in the company.

The researcher continued to request whether there are brief risk management framework and guidelines in their respective companies and the responses were as tabulated in Table 9 and, it can be seen that only 8.3% (13) strongly disagreed, 18.5 % (29) disagreed while 16.6% (26) of them were neutral that there are brief risk management framework and guidelines in their respective companies. But, 33.8 % (53) and 22.9 % (36) of them agreed and strongly agreed respectively that there are brief risk management framework and guidelines. And, it can be observe that most of the

Table 10. The Company policy encourages training programs in the area of risk management.

| The Company's policy encourages training programs in the area of risk mngt | | | | |
|---|-------------------|----------|----------------|---------------------|
| | Frequency | % | Valid % | Cumulative % |
| | Strongly disagree | 16 | 10.2 | 10.2 |
| | Disagree | 33 | 21.0 | 31.2 |
| | Neutral | 25 | 15.9 | 47.1 |
| | Agree | 51 | 32.5 | 79.6 |
| Valid | Strongly Agree | 32 | 20.4 | 100.0 |
| | Total | 157 | 100.0 | 100.0 |

Source: Own computation, 2020.

Table 11. The Company has standardized risk management process flow that clearly understood by all members of the company.

| The company has standardized risk management process flow that clearly understood by all members of the company | | | | |
|--|-------------------|----------|----------------|---------------------|
| | Frequency | % | Valid % | Cumulative % |
| | Strongly disagree | 19 | 12.1 | 12.1 |
| | Disagree | 39 | 24.8 | 36.9 |
| | Neutral | 30 | 19.5 | 51.0 |
| | Agree | 59 | 37.6 | 88.5 |
| Valid | Strongly Agree | 10 | 6.4 | 94.9 |
| | Total | 157 | 100.0 | 100.0 |

Source: Own computation, 2020.

respondents agreed or strongly agreed that their existence of brief risk management framework and guidelines.

The company's policy encourages training programs in the area of risk management, in the above Table 10, 10.2% responses strongly disagree, 21% said disagree, 15.9% said Neutral, 32.5% said agree and 20.4% of the respondents were said strongly agree. So most of the respondents were agree 32.5 on the statement of the company policy encourages training programs in the area of risk while the least 10.2. This implies that company's policy highly encourages training in the areas of risk management to control risk will occur in the companies.

The company has standardized risk management process flow that clearly understood by all members of the company; as depicted in Table 11, 12.1% (19) of the respondents were strongly disagree 24.8% (39) were disagree, 19.5% (30) of them neutral, 37.6% (59) respondents were agreed with the statement and 6.4% (10) were strongly disagree. This implies that the greater part of the respondents were agreed with the company has standardized risk management flow within the company and briefly understandably by all members.

The researcher requested the respondents on the effective risk management practice enhance the performance of the company, the respondents forwarded their responses as Table 12; 3.8% (6) said strongly

disagree, 8.9%(14) disagree on the statement, 13.4%(21) were neutral, 32.5% (51) were agreed and 41.4% (65) were strongly agreed on the statement of the effective risk management system enhance the performance of the company.

The perception of the Respondents was requested on Effective and appropriate risk management tools available in the company in the Table 13 4.5% (7) of them strongly disagreed and 2.5% (4) disagreed while 35% (55) of them were still neutral. In contrast, 25.5% (40) of the respondents agreed and only 32.5 % (51) of them were strongly agreed. From these results, we can see that majority of the respondents were whether effective and appropriate risk management tools available in the company or not available.

As illustrated in the Table 14, 8.5% (13) and 17.8% (28) of respondents strongly disagree and disagree respectively on the existence of well planning done to perform risk management in the company; while 31.2% (49) of respondents shared their views by neutral and agreeing to the statement of a well planning and 11.5% (18) of the respondents strongly agreed.

As far as stakeholder involvement is concerned, 22.3% (35) and 42% (66) of respondents disagree and neutral respectively to the existence of stakeholder involvement in the planning of risk management; 24.2% (38) and 11.5% (18) of respondents agree and strongly agree

Table 12. Effective risk management system enhances company's performance.

| Effective risk management system enhance company's performance | | | | | |
|---|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Strongly disagree | 6 | 3.8 | 3.8 | 3.8 |
| | Disagree | 14 | 8.9 | 8.9 | 12.7 |
| | Neutral | 21 | 13.4 | 13.4 | 26.1 |
| | Agree | 51 | 32.5 | 32.5 | 58.6 |
| | Strongly Agree | 65 | 41.4 | 41.4 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Table 13. Effective and appropriate risk management tools available in the company.

| Effective and appropriate risk management tools available in the company | | | | | |
|---|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Strongly disagree | 7 | 4.5 | 4.5 | 4.5 |
| | Disagree | 4 | 2.5 | 2.5 | 7.0 |
| | Neutral | 55 | 35.0 | 35.0 | 42.0 |
| | Agree | 40 | 25.5 | 25.5 | 67.5 |
| | Strongly Agree | 51 | 32.5 | 32.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Table 14. Respondents' perception towards risk management planning.

| There is well planning done to perform risk management | | | | | |
|---|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Strongly disagree | 13 | 8.3 | 8.3 | 8.3 |
| | Disagree | 28 | 17.8 | 17.8 | 26.1 |
| | Neutral | 49 | 31.2 | 31.2 | 57.3 |
| | Agree | 49 | 31.2 | 31.2 | 88.5 |
| | Strongly Agree | 18 | 11.5 | 11.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |
| Concerned stakeholders are involved in the planning and performing of managing risk. | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Disagree | 35 | 22.3 | 22.3 | 22.3 |
| | Neutral | 66 | 42.0 | 42.0 | 64.3 |
| | Agree | 38 | 24.2 | 24.2 | 88.5 |
| | Strongly Agree | 18 | 11.5 | 11.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |
| Trainings are planned to team members in the company on how to handle risk / uncertainties | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Strongly disagree | 21 | 13.4 | 13.4 | 13.4 |
| | Disagree | 14 | 8.9 | 8.9 | 22.3 |
| | Neutral | 45 | 28.7 | 28.7 | 51.0 |
| | Agree | 57 | 36.3 | 36.3 | 87.3 |
| | Strongly Agree | 20 | 12.7 | 12.7 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

Table 15. Respondents' perception towards risk monitoring and controlling.

| Companies are monitored and controlled based on the results | | | | | |
|--|-------------------|------------------|----------|----------------|---------------------|
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Disagree | 27 | 17.2 | 17.2 | 17.2 |
| | Neutral | 43 | 27.4 | 27.4 | 44.6 |
| | Agree | 67 | 42.7 | 42.7 | 87.3 |
| | Strongly Agree | 20 | 12.7 | 12.7 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |
| Risks that are already faced in the project are controlled in line with the goal and objective of the Company | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Strongly disagree | 7 | 4.5 | 4.5 | 4.5 |
| | Disagree | 24 | 15.3 | 15.3 | 19.7 |
| | Neutral | 37 | 23.6 | 23.6 | 43.3 |
| | Agree | 81 | 51.6 | 51.6 | 94.9 |
| | Strongly Agree | 8 | 5.1 | 5.1 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |
| Risk Monitoring and controlling processes in the Company complies with the standards and procedures | | | | | |
| | | Frequency | % | Valid % | Cumulative % |
| Valid | Disagree | 14 | 8.9 | 8.9 | 8.9 |
| | Neutral | 58 | 36.9 | 36.9 | 45.9 |
| | Agree | 67 | 42.7 | 42.7 | 88.5 |
| | Strongly Agree | 18 | 11.5 | 11.5 | 100.0 |
| | Total | 157 | 100.0 | 100.0 | |

Source: Own computation, 2020.

respectively to concerned stakeholders involved in the planning and performing of managing risk. As shown in Table 14, the perception of the respondents on the statement; Trainings are planned to team members in the company on how to handle risk / uncertainties, 13.4% (21) of the respondents were strongly disagree, 8.9% (14) were disagreed on the statement, 28.7% (45) were neutral, 36.3% (57) and 12.7% (20) of the respondents were agreed and strongly disagree respectively.

From the above result, the researcher came to understand that majority of the respondents believed that they were no sure well planning and stakeholder's involvement done to perform risk management in the company and great part of the respondents agreed that trainings are planned to team members in the company on how to handle risk.

Table 15 shows, the distributions of the reactions of respondents to whether projects in the respective companies" projects are currently monitored and controlled as per the results of the risk management results and it can be seen that 17.2% (27) of them disagreed while 27.4% (43) of them remained Neutral. 42.7% (67) agreed and 12% (20) strongly agreed. This implies that, majority of the respondents agreed that projects in the respective companies are currently

monitored and controlled according to the risk analysis and responses results.

Another interesting statement posed by the researcher to know whether risk monitoring and controlling was no at the expense of their company's goals and objectives rather inline and supportive and the respondents reactions were as summarized in Table 15, where only 4.5% (7) of them strongly disagreed, 15.3%(24) of them were disagreed and 23.6% (37) of them were neutral. But, 51.6% (81) of the respondents had agreed and 5.1% (8) strongly agreed that risks were monitored and controlled in line with the goals and objectives of the companies. Therefore, it is deductible that majority of the respondents agreed that risks are monitored and controlled in line with the goals and objectives of the company.

The perception of the respondents were requested by the researcher who wanted to be reacted whether risk monitoring and controlling practices were in compliance with the standards and procedures and the respondents reacted as summarized in Table 15. As per to this Table 15, 8.9% (14 of them disagreed but 36.9% (58) of them were not sure or neutral whether risk monitoring and controlling practices were in compliance with the standards and procedures. But 42.7% (67) of the respondents agreed and the remaining 11.5% (18

strongly agreed. From these results, we can infer that greater number of the respondents was agreed to risk monitoring and controlling practices were in compliance with the standards and procedures of the perspective company.

Conclusions

The key objective of this study is to evaluate risk management practice in Dangote cement factory in Ethiopia, the following conclusion are forwarded on the finding mentioned above about practice followed in these company. The findings of the study discovered that risk management control is one of the major strategic objectives of their companies.

They also added that their risk management strategies plan is clearly implemented and an already established risk management committee exists at company level. But the establishment of a risk management committee at department level is not yet organized by company and the finding of the result showed irregularity as far as handling of uncertainties that occur within the companies. In conclusion then is that departmental risk management committees would be well organized and works on the basis of regularity.

There is no systematic approach or a careful planning done to perform risk management in the company. Although the representation of relevant stakeholder was not most horrible, their involvement was not sufficient enough. Majority of the respondents believe that expert judgment or meetings is not considered while planning of risks. The study concludes that risk management planning should be done with experts to bring the desired results.

All team members do not play a role in identifying risks. Enterprise doesn't use the available method of risk identification adequately. The majority of source of risk in the company is packing plant risk followed by material and credit risks.

Risk responding processes are carried out by first properly identifying and allocating, in a well-defined manner and considering factors like budget, schedule and resources to avoid or minimize the negative of risks while improving its positive side. There existed no well-developed strategy to respond to risk but Controlling and reducing is the method most commonly practiced to respond to or mitigate risks that happened to occur in their companies. In conclusion, risk mitigation strategies need to be properly developed and implemented.

Risk monitoring and controlling practices of the case companies indicated that risks are monitored and controlled based on the current results of the projects and team members use available information to supplement project risk monitoring and controlling. Besides, study found that risk are monitored and controlled as per the goals and objectives of the companies though these

practices were not in compliance with the accepted standards and procedures. It can be concluded that the company under discussion need to practice risk monitoring and control as per standards and procedures available in risk management theories.

The most department which is familiar with risk in the company were Packing plant workers (employees), production department, Material management(store), operational management, sales department, finance, mechanical department (workshop area) etc, are familiar with the concept of risk, while the risk management department has responsibility to reduce or mitigate these types of risk happened in the company.

RECOMMENDATIONS

Grounded on the conclusions of the research, the researcher suggested the below mentioned recommendations:

- 1) The companies should implement the risk management practice (control) strategies and guidelines with the involvement of all companies team members and stakeholders.
- 2) The Dangote cement factory in Ethiopia should provide awareness creation and continuous training regarding risk and its management system especially the department risk probability to happen; packing plant (employees).
- 3) To minimize the severity and frequency of the risk in the companies is better to establish risk management control at department level and risk supervision committee.
- 4) The company should give awareness to safety department to be properly matured and fulfill the personal, prospective equipment (PPE) for employees.
- 5) Since in the company risk happened in everywhere especially safety, physical disabilities and death of the employees; the Dangote cement factory in Ethiopia should better have safety supervision for staff committee
- 6) The company should be save from harm of employees from death risk, cement damage around the area of loading and land erosion risk with the factory bolt to save the company from repetition risk.

CONFLICT OF INTERESTS

The authors have not declared any conflicts of interests.

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