



## **Cooperative Education Report**

**Title:** A case study on the quality assessment of product in a  
Construction Company

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We have approved this cooperative report as a partial fulfillment of the cooperative education program semester 2/2017

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### **Abstract**

From the research report as well as during these three months time frame of internship period it is understood that Nepalese development had embraced a skyscraper in its picture globally as well as internationally and has been taking an interest in different association as a dynamic part. The construction company is considered to be one of the key factors which lead to the development of a country. In Nepal, this industry has been contributing over 8% of GDP and also has the growth rate which is way more than that of a national average. There are many important parts in a construction company which helps them to function and operate well such as the Human Resource department, finance department, research department, etc. Human Resources Management is a department in an organization which helps to hire workers according to the need and requirement.

Quality is considered to be the key factor for the construction firms as all their clients wants from them is Quality Assurance. There are two key indicators of quality assessment they are: preventative and resultant.

*Mang Jiptha*

## Acknowledgement

First of all I would like to acknowledge my University, Siam University for giving me an opportunity to have an actual experience of the cooperate world, see how they operate, get to know about their day to day activities carries on and so on. I would also like to show my sincere gratitude towards my college Kathmandu College of Management (KCM) for guiding me throughout my journey of my bachelor's life.

Rabina Construction has helped me to develop self confident, team work spirit, communicating skills and so on. I would like to thank my supervisor Er. Richaya Shrestha, for giving his constant support and guidance during my work frame. Lastly, I would like to thank my friends and family for their support.

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# Chapter 1

## Introduction

### 1.1 Company Profile

Rabina Construction Pvt. Ltd Company is a family owned and operates business which has been servicing the Construction industry since 1983A.D. It is an A class Construction company of Nepal. They have built a string reputation for delivering a quality service on time, and at a competitive price. They pride themselves on being skilled and experiences in all aspects of civil construction and this, combined with their extensive knowledge of the construction business in Nepal. It has challenged them and has established them as a major player in this industry.

They use high quality raw materials throughout their service in every field as they are one of the renowned quality centric organizations and quality is their prior aim. They procure the raw materials from quality driven organization that is checked at quality inspection as to provide unique quality service to our esteemed clients. They offer these services after complete planning and designing of the project.

They service the heavy construction line of business from small to large projects. Rabina has been established with an aim of providing construction service in the field of road, highway, tunnels, bridge, drainage, irrigation, water supply, sewerage treatment, river training, building, hydro power, airport and various industrial complexes etc.

Their team of experts and professional engineers are gaining experiences from past many years in the field of civil engineering. They use latest and high performance machinery and equipment in their service. They provide these services in various parts of the country and make a permanent relationship with their respected clients

### Company Value

1. To enhance the quality of constructions.
2. To enhance customer value.
3. To respect all environment rules, regulation and legal requirement.
4. To serve with an environment of professionalism, team work and excellence.
5. To serve with best value for money and high return on project.

### Vision:

To become the number one leading engineering and Construction Company in Nepal and eventually in South-Asia, by consistently providing project that meet in international standards.

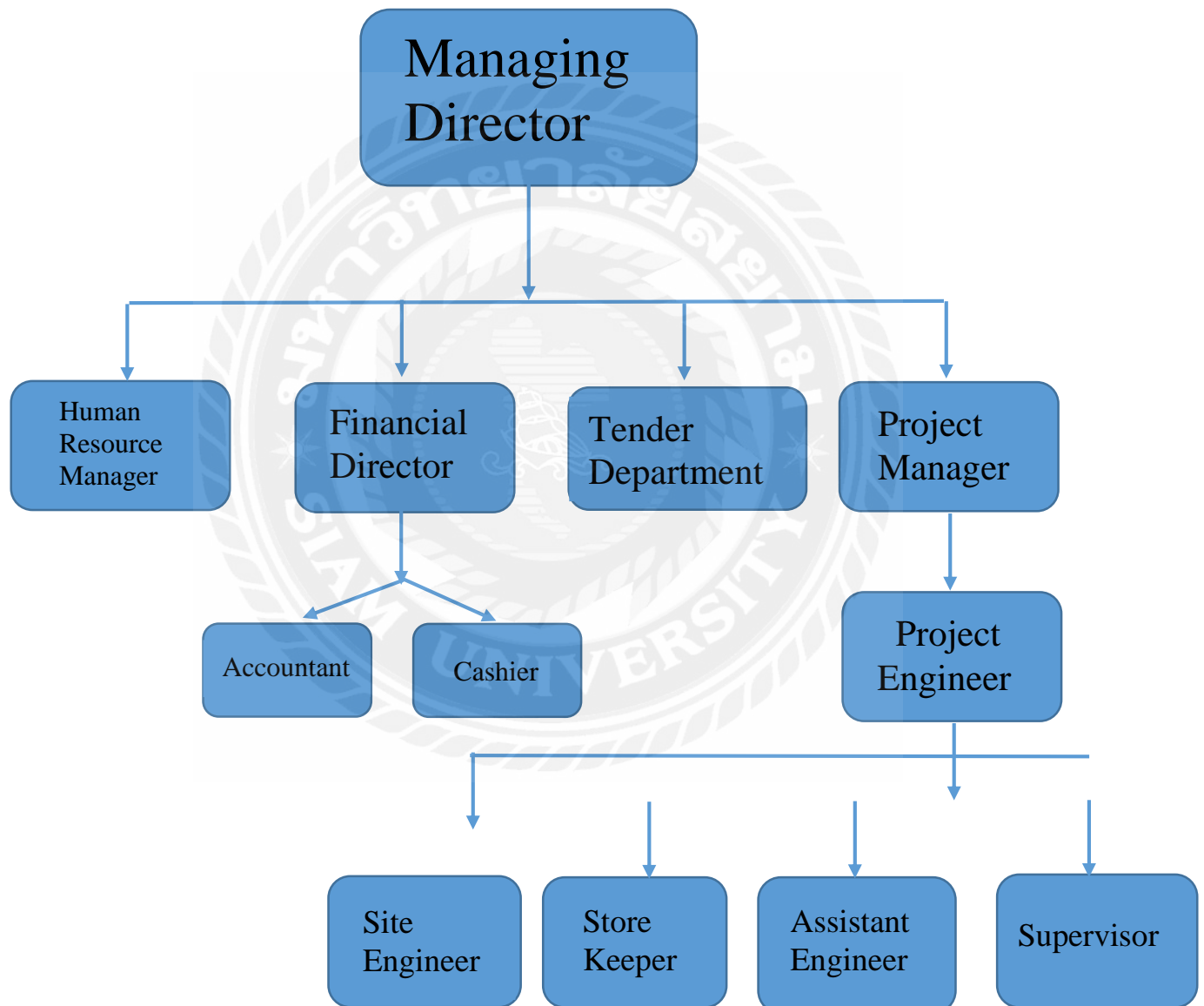
### Mission:

To safely deliver high-quality, cost effective project on schedule by employing and supporting passionate, flexible and focused project team. To remain focused on controlled organizational growth.



To develop an effective management that stresses productivity, perpetual development of the organization, and instilling work ethics in all personnel. We value the importance of our relationship and will continue to remain fair and true in our dealings with all employees, customers and subcontractor.

## 1.2 Organization Structure





### 1.3 Statement of Problems

In the current context, Construction Company are growing and doing good. Nepal is a poor country and one of the developed countries. So the construction businesses are running and growing rapidly. Every coin has two sides, as it is in a growing phase people are neglecting the small thing which might affect and create problems in the coming future. Although the worker's safety and health are quite reinforced with strict safety assessment by the company itself but the accident at the sites are still being alarming. Not only that, this company is still in traditional marketing practices, and maintaining reports and records. They need to determine why they are backward in this situation being an A class construction company they need to strictly look after these problems.

To understand the construction site's management on safety and health. Although cases were reported directly to the office but in the construction are still lacking in operation. Awareness on safety and health is important and must in a construction company. The company should provide the safety gear to the each and every worker in a site, as the company provides the safety gear to the workers but they need to look after the health problems. Company should follow the guide lines provided by the government as health and safety of a worker is must.

To study the lack of understanding on the gaps of Traditional marketing and advanced marketing. Company is neglecting the fact that it's a 21<sup>st</sup> century and they are still using the old approach of marketing. Till now they are doing the advanced work but later people will look after the profile of the company. As there are many construction companies in Nepal, this company is renowned and "A" class Construction Company but marketing should be must for the future benefit and sustainability in the market.

To maintain the irregularities in reports and records which are essentially the proof of all the activities held relating to the organization. The proper maintaining of the records and reports shows how much the company is strong from internal and external way. In the company, confusion arises while dealing with specific project.

To understand the effects of not having trade union that support and represent the construction companies. This company has not provided any kind of policy to form a Trade Union. It is specially done for the welfare of the workers and to provide equal rights to the workers of the company. They have not given the platform of Trade Union. It might increase the turnover of the company, as alone they cannot fight for their rights and they ended of leaving the organization and search for new.

#### 1.4 Objective of the study:

- ▶ To know about the working environment of a construction company in Nepal.
- ▶ To know about the products of the company.
- ▶ To access the quality of the products.
- ▶ To study the scope of customer relationship with the company.

#### 1.5 Expected Outcomes:

At the end of this research project I have expected to know about the working environment, organizational behavior as well as quality assessment of the products of Construction Company of Nepal.

#### 1.6 Limitations of the study

1. Time frame in the organization was only 3 months
2. The context of the study is affected by political instability.
3. Communication barrier with the clients.
4. It was a huge market and time frame was not enough to cover up all the area for conducting proper market research.
5. There was not any questionnaire to conduct this report.
6. The report is limited to personal opinion and biasness.

## Chapter 2

### Literature Review

#### 2.1 Main theories and concepts applied

The review of literature contains all the theories part which we used while solving the organizational problem given to us. Some theories were very much helpful for us to tackle with the problem. Rabina Construction gave us challenging work and we managed to solve it. Things related to the Cost Analysis, Planning and Implementing Marketing, HRM, Research of Quality Products and Coordinating with Project Engineer.

##### 2.1.1 Human Resources Management (HRM)

Human Resources Management is a department in an organization which helps to hire workers according to the need and requirement. HR in construction sector - In the environment, there was a noted preference for informal performance management characterized by frequent dialogue as opposed to formal annual reviews that are highly structured and documented. Additionally, in the construction firms we learned about, general management (GM) development is relatively unstructured—culture plays a role in an ‘organic’ or systemic development of talent. Values and principles are important to managers, but they have to be matched with action to be relevant. There needs to be an active, clearly visible connection between the values and principles and the actions taken by the firm, the firm’s leaders, and the employees. With increased outsourcing and splitting off of the administrative functions of HR, some have suggested new measurements of HR effectiveness are required. HR departments can no longer rely on traditional measurements of transactional activities. Indeed, most of the data indicated that many in the profession are making this transition. Companies are using employee surveys designed to measure subjective aspects of the individual’s experience in the firm.

##### a. Recruitment: -

Recruitment means finding the best applicants for the employer’s open positions. Company has their own way to recruit the new employee. Recruiting methods are superior to others, depending on the type of job. Even in employment law prescribes what you can and cannot do when recruiting. Recruitment is the process of discovering potential candidate for actual or anticipated organizational vacancies. (Robbins/Decenzo). There are different types of stages they are: -

1. Defining Requirements: - company has to prepare JD and JS and also decide terms and condition of employment.
2. Appealing Candidates: - In this we review and evaluate alternative sources of applicants. After the JD and JS first company can search inside the company if there is no one to fulfill the requirement then the company can search the applicant outside the company with the help of advertisement and also can use agencies and consultants.
3. Selecting Candidates: - Selecting candidates is the hardest job of HR. Just by the few queries HR should select the best candidates among all. Selecting applications, Interviewing,

testing, assessing candidates, assessment centers, offering employment, obtaining references and after the selection process the company should prepare a contracts of employment.

#### b. Employee Testing and Selection

The process of gathering information for the purpose of evaluating and deciding who should be hired, under legal guidelines, for the short and long-term interests of the individual and the organization. (Schmitt and Schneider). In other words, the process of gathering information about job applicants in order to determine who should be hired on what basis. After the interview the applicant are shortlisted according to their performances. The HR manager should be very much careful while selecting the right person to fit the right job. If they do mistakes, then that new recruit will not be able to fulfill the organizational role and the work will not be essentially productivity. Selection is important because in an organization small things matters and it might affect the performance, cost might be high if the wrong candidate is selected and legal obligation might arise after the contract is don't within both the parties. There are many ways for employment tests: -

Obtaining Reliability and validity

- Validity: - It measures the person's attributes. It is the degree to which a test or selection procedure.
- Reliability: - It is the degree which interviews, tests, and other alternative methods.

We can also get the information about the candidate by Polygraph Tests, Background Investigation, Interviews, Integrity and Honesty tests, Medical Examinations. There are also the type of test like Cognitive abilities, Measuring personality and Interests, Work Samples and Simulations, Management assessments Centre, Background Investigations.

#### c. Training and Development

In the current scenario, Technology has radically change the life of a person. Nowadays, People are influenced by the technological changes. As it changes people need to upgrade themselves according to it. So, the organizational employee needs training and management development. Upgrading their co-workers according to the new invention should be must in a construction company. It is linked with Productivity and performance efficiency. Training and development works helps employee to do their current work better and prepare individual for the future, focusing on learning and personal development.

#### d. Performance Management and Appraisal

Performance refers to an employee's completing and facing the challenges the assigned work. After the performance we can easily find out the strengths and weaknesses of a workers. Moreover, Appraisal means a judgment of an individual's performance.

Performance Appraisal means evaluating an employee's performance, tasks of a job, whether or not they have fulfilled the work given. After the data, the HR manager motivates the employee for

the better performance. The first step of performance appraisal is to define the job and appraising performance and lastly feedback session.

Performance Appraisal Tools are really helpful. It also increases the efficiency of the work. The workers will know their weakness and try to improve that area.

### **2.1.2 Cost Benefit Analysis (CBA) of a product**

The economic impact of a construction cost overrun is the possible loss of the economic justification for the project. A cost overrun can also be critical for creating policies within sustainable development on the basis of economic costs. The financial impact of a cost overrun results also in demand for construction investments credits. It is considered important to develop a methodology to enable contractors to assess the true costs of accidents and the associated benefits of accident prevention as part of pre and post contract project evaluation. A framework is proposed based on an examination of economic viability of management of construction health and safety. The method developed incorporates accident cost elements, health and safety measures and benefit elements to improve decision making processes and guide contractors and designers in developing efficient and effective construction health and safety management practices. Moreover, we can also use Comparative analysis, Trend analysis, and composition analysis.

Comparative analysis basically used to judge the quality products of a project by comparing quality costs against specified element.

Trend analysis is a method to evaluate current level of quality control activities by analyzing the trend of quality cost by time period.

Composition analysis is performed for examining the changes in proportions of each quality cost item. While implementing it to the real world, manager or any other users check the proportion of each item along with the changes of overall quality cost.

### **2.1.3 Search Engine Optimization (SEO):**

SEO, or Search Engine Optimization, means setting up your website and content to show up through online search results. While many marketing tactics rely on reaching out to the targeted audience, SEO gives the power to reach people when they are actively searching out information related to a company's products and services (Paquet, n.d.).

SEO helps a company to make themselves the most visible on internet. By using SEO the company can reach out to its prospective customers in a more effective manner.

For a construction company like this, marketing strategies to be used is very limited as they target mainly Business-to-business (B2B) sector of the market. They solely depend on referrals and WOM basis. To make themselves more visible in the business sector as well, they should create a website on their company's profile. And with a little more investment they should link words like 'construction' with their website. By which when viewers surf the internet for anything related to construction, their webpage will be the first link to be listed on Google. This practice of SEO in their business will make their company more visible and known to their targeted audience.

Thus, a theory like SEO plays a vital role in marketing a B2B oriented company like Rabina Construction Pvt. Ltd in their type of business industry.

#### **2.1.4 Customer Relationship Management (CRM)**

Customer relationship management (CRM) is a term that refers to practices, strategies and technologies that companies use to manage and analyze customer interactions and data throughout the customer lifecycle, with the goal of improving customer service relationships and assisting in customer retention and driving sales growth (Rouse, n.d.)

It is said that retaining new customers is 5 times more affordable than attracting new customers. For retaining customers, a company should build and maintain a good relationship with their current customers. Old customers also bring in new customers through referrals.

Managing customer relationships can be done through various techniques or using technology. For a construction company, the relation with a customer should not end with the termination of the contract. Rather the company should regularly be in contact with the customers who can refer other customers for making a contract or who will contact the company for their own construction contracts.

The company can use technological techniques like direct mail. Updating their old customers about the projects being done or attracting new customers whoever logs into their website or Face book page.

#### **2.1.5 Quality Assessment**

Quality is considered to be one of the important key factors for survival in today's competitive market scenario. Quality management has been an important issue for many years in various sectors of the market. The implementation of effective quality management has been witnessed and documented in the manufacturing industry, which set up a paradigm for other disciplines such as the design and construction industry. But as the market changes with rising of new competitors in the past few years, things have changed in the construction sector. It has opened its doors by welcoming policies that would improve construction process and lead to successful business strategies, effective quality management, especially total quality management. (Tang S. e., 2005)

Since the 1990's quality has been given the main importance in the construction company because not only people have invested their money but also emotions of the clients are attached with it. To ensure the quality of the products in a construction company, many government departments have made it mandatory for contracting firms to have their quality system accredited. They have created a system called ISO 9000 which is the international standard accepted for certification of quality management systems (QMS). The smaller firms are repeatedly report complains regarding the difficulties and obstacles using the system whereas some large contractors are enjoying benefits from implementing their QMS.

In the past the attempts at tracking quality within construction have inevitably failed due to the fact that quality is subjective and what one person may accept as high quality may be considered

by another to be insufficient. In addition, the past attempts have approached measuring quality using *indicators of quality*, such as the number of punch list items, the number of requests for information, or the number of callbacks for projects. (Tang S. e., 2005)

The problem with using the "indicators of quality" approach is that it was impossible to determine what an acceptable level of quality was for a project. Complicating the indicators of quality approach is the fact that not all indicators are negative – for example, requests for information that resolve installation issues and improve the quality of the end result is a positive. (Tang S. e.–6.; Tang S. e.–6.)

Therefore, in order to go beyond the "indicators of quality" approach and measure quality metrics that are comparable across projects and companies, there are two fundamental categories of quality metrics: preventative and resultant. (Tang S. e.–6.)

- a. **Preventive metrics: (Leading Indicators)** for any company to run in a long term it must follow or take preventive measures to sustain in the market as well as for a quality program to be successful, it is critical that a company implements preventative activities to proactively evaluate and ensure the implementation of quality on construction projects. Typical quality preventive metrics measures include: (CQEC, 2015)
  - Application of Lessons Learned/Best Practices
  - Alignment of Expectations
  - Creation of Project-Specific Quality Plans
  - Submittal Reviews
  - Pre-Installation Meetings
  - Initial and On-Going Verifications
  - On-Going Project Quality Evaluations
  - Risk Analysis
- b. **Resultant Quality metrics: (lagging indicators)** understand how to measure resultant quality in the construction industry, it is important to first agree that there are certain outcomes on a project that should not happen, and when they do, it is a clear indicator of a “poor quality process”. This concept is already the foundation of measuring our safety programs – any injury is unacceptable and indicates a failure of the overall “project safety process”. Therefore, for quality, there is the Construction Quality Rate that measures the quality of during the construction of projects and there is a Claim/Latent Defect Rate that measures of the long-term impact of quality, typically after the construction of the project. Both of these rates are based on the reporting and categorization of a Quality Incident. (CQEC, 2015)



There are three primary items that cover the measuring and improvement of quality in a construction company.

1. What is a Quality Incident?
2. Key Information to Capture for Each Quality Incident
3. Using Historic Data to drive Quality Improvements (CQEC, 2015)



## Chapter 3

### Methodology

#### 1.1 Roles and responsibilities assigned by the company

Following are the major jobs and responsibilities performed by us during our course of time in Rabina Construction Pvt. Ltd.

1. Coordinating with Project Engineer:

Rabina Construction was involved in a project of constructing hospital building for Nepal Medical College located in Jorpati, Kathmandu. We were supervised under this project. One of our job responsibilities was to coordinate with the project engineer regarding the procurement of materials used during construction. When procuring those required materials we were made to communicate with the local suppliers about the amount of materials brought in and report it to the project engineer. Sometimes due to lack of communication between the project engineer and the suppliers, there would occur miscalculations for the required amount of procurement. Here we handled the order of materials that should be brought in for the particular day's work. Every order was to be recorded in the register and later would be consulted with the project engineer before the orders were made. The project engineer would let us know about the next lot of required materials for the next day and we were to communicate with the suppliers and make the orders as per this supervision. Also, when the ordered materials were brought in the site, any one of us was made responsible to record the number of orders brought in and report it to the project engineer.

We were also made responsible for the extra inventory that would be stored in the store. Here every stock would be kept track of coordinating with the store keeper. These stocked inventories would be later reported to the project engineer on every last day of the week.

2. Planning and Implementing marketing strategies

Rabina Construction Pvt. Ltd was involved in both business-to-business (B2B) and business-to-consumer (B2C). They were majorly doing business-to-business practices. Thus, due to their type of business industry, this company follows mainly traditional marketing practices. Currently they are involved in word of mouth communication and referrals marketing basis. But anyhow, they are also targeting the local consumers in Kathmandu valley. When doing B2B business, companies do not invest heavily on marketing themselves to their target audience as most of the business deals are done through personal contacts and referrals basis. But if the company wants to make itself known to their local customers (i.e. B2C) then they should be involved in differentiating themselves in this competitive market.

For this, we were made to brainstorm marketing ideas for this type of industry. For a construction company marketing practices is very limited as they cannot collaborate with

other products that are there in the market. Because these construction companies do not have a production unit and they have to outsource materials and products from different suppliers. This is the reason why a construction company cannot collaborate with other related products to advertise/ promote their brand. Those suppliers do not just rely on one client thus they do not collaborate with only one company for promotions.

However, the company can contribute to marketing itself through internet medium. Other activities can be involving in CRS strategy and outdoor advertising for this type of industry. Therefore, under this responsibility we were made to brainstorm possible marketing ideas for the company by which they could differentiate themselves in the B2C market. And build a brand that would attract more and more local customers.

### 3. Cost analysis of a product

Cost analysis in a construction company is the most important thing to do. Company should maintain the quality product in an estimated price to satisfy their clients. We did the cost analysis for the various materials like civil materials, Small miscellaneous. Moreover, we have a trivial idea about the machinery materials. For the further research, they provided us with the list of current suppliers of the ongoing project. We did a research and compare the prices of the current suppliers and market suppliers. We verbally talked to the market suppliers and got to know that there is a difference in the prices i.e. Somewhere high and somewhere at low cost. We list down the differences and gave to the project manager. But, project manager stated that they are bind in a contract with current suppliers so they can't breakdown the contract at the moment but they took our research as a reference for the upcoming project.

As we all know about the fact that in Nepal political situation is not stable which also heavily impacts any type of businesses. This political instability gives a rise to a new government with in a very short period of time. This leads to change in rules and regulation. When new rules and regulation are being implemented by the government, other political parties do not agree with the new set of rules and thus put up strikes against the government in the whole country. As for producing products the production units have to import raw materials from outside the country, majorly from neighboring countries. And when these strikes happen importing activity is brought to a hold and also transporting the required materials becomes impossible for the companies like ours.

*The prices are strictly to be kept confidential as per the company policy.*

S.N	List of Civil Materials	Price
1.	Steels	-----
2.	Rod	-----
3.	Cement	-----
4.	Sand	-----
5.	Fine Aggregate (Sand)	-----

6.	Course Aggregate (Crushed Stone)	-----
7.	Bricks	-----

S.N	List of Miscellaneous Materials	Price
1.	Hammer	-----
2.	Wheel Barrow	-----
3.	Nails	-----
4.	Binding Wire	-----
5.	GI Wire	-----
6.	Shovel	-----

#### 4. Coordinating with HR manager for Organizational Behavior

It is known that any type of business cannot operate without efficient productivity of their employees. No any company is complete without its employee. Likewise, in this construction company also the employees play a very vital role for sustainability of the company. Organization is a place where different people works together to achieve the organizational goal. People from different culture, religious, work together for the benefit of the organization. Organization is social structure. If the HR recruits a new employee, the new employee should understand how they operate and should help the company to achieve the goal. Organizational behavior investigates the impact that individuals, groups and structure have on behavior within the organization.

HR maintains the evaluation sheet of each and every individual of the organization. They observe each activity and evaluate according to it. It is done to know the performance of the individual and their contribution towards their organization. According to the evaluation they promote and give benefit to the excellent workers and motivate the other people to do so.

We coordinate with the HR manager. We talked about the process of the recruiting, Interview and also written. We discussed about the new ideas and HR manager really likes our idea. For the efficient productivity performance evaluation, benefits, good working environment should be must. In the entire organization hierarchical label are there top level management and lower level management. Even in this organization they use the same methods.

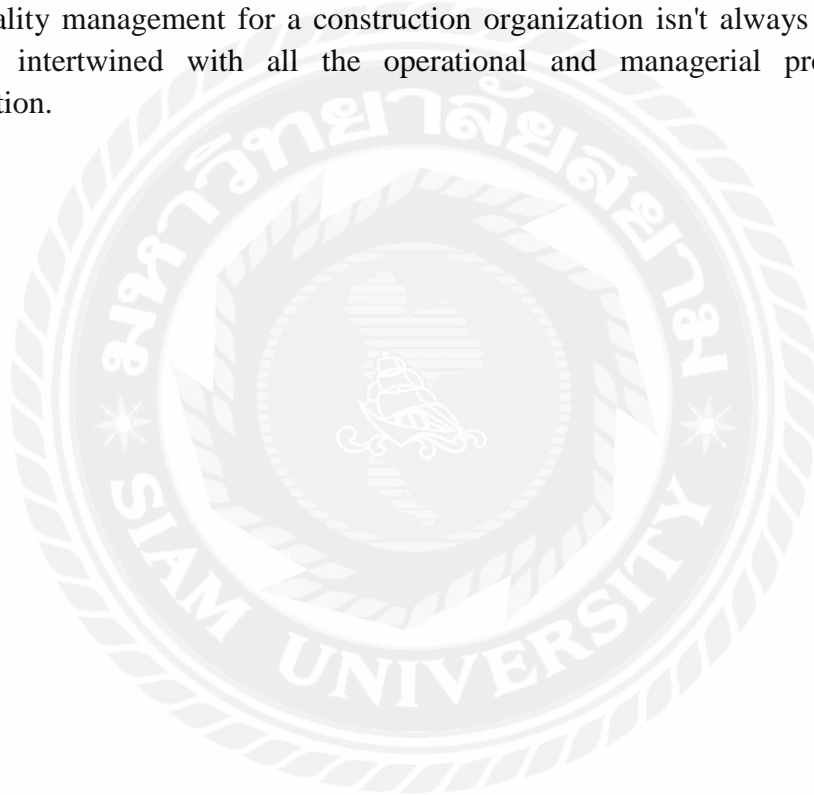
#### 5. Communicating with the clients

Communicating and convincing the client is a difficult job to do when it comes to constructing something. Bad communication can lead to loses of thousands or even

millions of dollars. One of our roles and responsibility during the internship period was to deal with the clients who come with tenure or a project.

6. Researching on quality product availability

The concept of quality management is to ensure efforts to achieve the required level of quality for the product which are well planned and organized. From the perspective of a construction company, quality management in construction projects should mean maintaining the quality of construction works at the required standard so as to obtain customers' satisfaction that would bring long term competitiveness and business survival for the companies (Abdul-Rahman, 2015). Quality management is critically required for a construction company to sustain in current competitive construction market. The role of great quality management for a construction organization isn't always a remote hobby, however intertwined with all the operational and managerial procedures of the organization.



## Chapter IV

### 4.1 Contributions of student made during the internship

Our internship period was of 3 and half months. During this period of time, our supervisor assigned me works. As per the works given by my supervisor, we were fully engaged in completing those assigned work with full determination and hard work.

The major works with which I was pre-assigned was:

- To keep record about the inventory (raw materials such as: rod, cement, soil, bricks, ply etc.) used in the sites.
- To communicate as well as coordinate with the workers.
- To deal with the clients of the company.

Apart from this I was involved in one of the projects of the company which was building a house for hostel purposes for the medical students. The topic of my report is “Quality Assessment of product of construction company” and here the “Product” is denoted by the building (house) which is being constructed.

This research is being conducted to have a clearer view regarding the operation as well as the functioning of the construction company.

#### 4.1.1 What are the ingredients to make the product of the construction company?

First of all here the product symbolizes any building, bridge etc build by the construction company. During the three months time frame of my internship, as a research project I along with two of my fellow mates, Miss. Sarina Bhattarai and Miss Sunaina Kandel were assigned to carry on our research work in one of the sites of the company. A building for the purpose of medical college is being constructed in one of the place at Kathmandu. Quality is the important aspect especially in construction business. Clients are fully conscious regarding the quality assurance of their buildings. Thus it's really important to maintain the quality of the products build by the company and to make this sure the ingredients which are used while constructing the company should also be of good quality. The ingredients which are used are mentioned below.

- Rod
- Ply
- Woods
- Bricks
- Cement
- Soil
- Maljam (material to maintain the level while giving support to the steps)

- Black pipe
- Drops ( to support the pipe)
- Concrete machines used for the purpose of mixing cement, stones etc.
- Bamboo etc.

Thus, in order to build a strong building all the above mentioned ingredients should be of good quality as mixed properly as good quality ingredients leads to good quality product.

#### 4.1.2 Requirement analysis of the clients

##### 4.1.2.1 *Quality Assessment System*

The Quality assessment system in development industry is a framework or strategy which is used to measure as well as assess the nature of workmanship of a development work in light of the significant endorsed standard. This appraisal sets out the standard regarding the nature of workmanship for different development components of building and foundation development work. “The quality of workmanship of a construction work is assessed according to the requirement of the relevant standard, and marks are awarded if the workmanship complies with the standard (CIBD, 2011)”.

The construction companies as well as the private sectors play an important role in the development of the country as well as giving employment opportunities to many individuals.

As a result the construction companies create a multiple effects in other sectors of the business such as financial sector, manufacturing sectors etc.

The Construction Business Promotion Section (CBPS) has set some basic rules or guidelines for the purpose of quality assessment in a construction company.

The main concern of all the clients is regarding the quality issues of their buildings, as they have invested a lot of money as well as time for that product. There major requirements were:

- To purchase the quality ingredients for the construction.
- To mix the right amount of mixture (cement and stones etc.).
- To complete the assigned project on time.
- To work effectively and efficiently.

#### 4.1.3 Communicating and coordinating with the workers

The construction company plays an important role for providing the employment opportunities to many of the citizens of Nepal. During the internship time frame we got a opportunity to work on the site and get to interact with the workers of the company. By communicating with them we came to know that the workers work for more than 10 hours a day



in order to complete the assigned project on time. The workers were very hardworking but the problem was many of them were not educated merely they were skillful. They all have developed their skills by getting into practice since a long time back. The workers were very dedicated in the work they did.

#### 4.1.4 Group Work

As during this internship time frame I along with two of my fellow mates Miss. Sarina Bhattarai and Miss. Sunaina Kandel were assigned to work under the same project. This helped us to develop a sense of team work between us. We learned how to deal with the matters together, how to solve it, how to communicate with the workers as well as the clients of the company. This further helped to enhance our communicating skills, problem solving skills as well as working together for accomplishing any task.

#### 4.2 Learning process and new knowledge

Rabina Construction helped us a lot during the time we worked there as an intern. It was a great experience to apply all that we have had learned during these 4 years time period of our Bachelor degree and apply it in the real world. Personally I got an opportunity to research about the inventory of the company. I got to know about the different kind of materials as well as machineries that is required for constructing a building.

##### 4.2.1 Indicators of Quality

- a. **Preventive metrics: (Leading Indicators)** for any company to run in a long term it must follow or take preventive measures to sustain in the market as well as for a quality program to be successful, it is critical that a company implements preventative activities to proactively evaluate and ensure the implementation of quality on construction projects. Typical quality preventive metrics measures include: (CQEC, 2015)
  - Application of Lessons Learned/Best Practices
  - Alignment of Expectations
  - Creation of Project-Specific Quality Plans
  - Submittal Reviews
  - Pre-Installation Meetings
  - Initial and On-Going Verifications
  - On-Going Project Quality Evaluations
  - Risk Analysis
- b. **Resultant Quality metrics: (lagging indicators)** understand how to measure resultant quality in the construction industry, it is important to first agree that there are certain outcomes on a project that should not happen, and when they do, it is a clear indicator of a “poor quality process”. This concept is already the foundation of measuring our safety programs – any injury is unacceptable and indicates a failure of the overall “project safety

process". Therefore, for quality, there is the Construction Quality Rate that measures the quality of during the construction of projects and there is a Claim/Latent Defect Rate that measures of the long-term impact of quality, typically after the construction of the project. Both of these rates are based on the reporting and categorization of a Quality Incident. (CQEC, 2015)

There are three primary items that cover the measuring and improvement of quality in a construction company.

1. What is a Quality Incident?
2. Key Information to Capture for Each Quality Incident

### 3. Using Historic Data to drive Quality Improvements (CQEC, 2015)

#### 4.2.2 Utility theory for Risk Management in construction works

The construction works are highly under risk. If the quality of the product is not maintained then there is a risk that the product may get damaged. It is understood that Nepalese development had attempted a skyscraper in its picture globally and broadly and has been taking part in different association as a dynamic part. Other than these, there are numerous gossipy tidbits and clashes about the capacity of Nepalese contractual workers about their specialized and budgetary capacity for not finishing the tasks attempted by them inside the given time span and of standard quality.

Utility hypothesis constructs its convictions in light of people's inclinations. It is a hypothesis proposed in financial aspects to clarify conduct of people in light of the start individuals can reliably rank request their decisions relying on their inclinations. Every individual will demonstrate distinctive inclinations, which seem, by all accounts, to be hard-wired inside every person. We would thus be able to express that people's inclinations are inherent. Any hypothesis, which proposes to catch inclinations, is, by need, deliberation in light of specific presumptions. Utility hypothesis is a positive hypothesis that tries to clarify the people's watched conduct and choices. The refinement amongst regulating and constructive parts of a hypothesis is essential in the train of financial matters.

A few people contend that financial hypotheses ought to be regularizing, which implies they ought to be prescriptive and instruct individuals. Others contend, regularly effectively, that financial hypotheses are intended to be clarifications of watched conduct of operators in the market, henceforth positive in that sense. This diverges from a standardizing hypothesis, one that directs that individuals ought to carry on in the way recommended by it. Rather, it is just since the hypothesis itself is certain, in the wake of watching the decisions that people make, we can draw deductions about their inclinations.

When we put certain confinements on those inclinations, we can speak to them diagnostically utilizing a utility capacity—a numerical detailing that positions the inclinations of the person as far as fulfillment diverse utilization packs give. In this manner, under the suppositions of utility hypothesis, we can accept that individuals carried on as though they had a utility capacity and acted by it. Accordingly, the way that a man does not know his/her utility capacity, or even denies its reality, does not negate the hypothesis. Financial analysts have utilized examinations to disentangle people's utility capacities and the conduct that underlies people's utility.

#### 4.2.3 Quality Assurance in accordance to ISO 9901

Quality assurance can be defined as the set of systematic as well as planned actions which is made in-order to ensure that all the products and services are made and compiled properly with including all the specified requirements. In other words, it checks the quality of the product from the first stage itself i.e. the product planning phase, so that in the future while manufacturing the products no or less defects can be seen.

The ISO 9901 deals with the quality management system (requirements) of a construction company. ISO 9901 is a standard which is set and can be used to certify the efficiency of a quality management system in a construction company. It works taking in consideration three principles which are:

- Customer focus
- Decision making
- Mutually beneficial supplier relationships.

The ISO 9001 standard helps to specify requirements for the quality management system. It makes the organization to show how they can consistently manufacture products by following the applicable requirements in order to meet the requirements of a client.

Quality is the most important aspect especially in a construction business, in-order to assure the quality of the products firstly a proper planning is needed which can be set using the regulatory requirements that focuses on the responsibilities of the management, resource management as well as product measurement, analysis and improvement. The control measures used by the construction company are in units, materials, services which must be established. These activities can be found out through the inspection, testing plans as well as the action plans.

## Chapter V

### Conclusion

The construction company is considered to be one of the key factors which lead to the development of a country. In Nepal, this industry has been contributing over 8% of GDP and also has the growth rate which is way more than that of a national average. As a conclusion, from this research paper the findings were that the construction company follows soothe rules and regulations made and implemented by the Nepal Government for their smooth operations. Quality is considered to be the most important aspect for any product. Any customer or clients will only be interested in buying or investing on the quality products. Therefore, it is very important to maintain the quality of any product for the long term success of the business.

Quality is considered to be the key factor in construction business as well. The clients of these types of firms want assurance of quality in their products (building).

#### 1.1 Self-assessment as future professionals

During the period of my internship time I got to know many things about the construction industry of Nepal. I was able to complete all the tasks which was assigned to me o time with full dedication and hard work. I believe Rabina construction has helped me to develop as a human being in different aspects such as, it has helped to develop my analytical skills, communicating skills, leadership skills, management skills, record keeping skills, dealing as well as convincing the clients, problem solving skills etc.

By interacting with the clients and answering their queries has helped to develop my communicating skills as well as convincing skills.

#### 1.2 Comparison of Practical learning VS theory

During the four years of my bachelors degree in business I have had learned many subjects. Before stepping out in the working environment I had the theoretical knowledge regarding the operations and management, financial statements, human resource management, production and operation management and so on. These subjects have helped to have a theoretical concept regarding the business environment and the way they function.

Now at the end of my four years time frame, I was able to apply all the theoretical knowledge in the practical environment. As a comparison between the practical knowledge and theoretical knowledge, I believe practical knowledge helps a student to have a wider view regarding the subject. By applying the theoretical concepts in the practical world, it has helped me to understand the way a business operates, about their day to day activities, planning process, internal working environment and so on.

The theoretical knowledge answers the question “Why?” whereas the practical learning will help you have a deeper view regarding the subject.

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