

A STUDY ON THEIR IMPACT OF SKILLED LABOR SHORTAGE IN CONSTRUCTION INDUSTRY

**Submitted in partial fulfilment of the requirements for the award of bachelors of Business
Administration**

By

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SCHOOL OF MANAGEMENT STUDIES

**SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI,
CHENNAI - 600 119**

MAY– 2022



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of
SHATHISH.S (39280091) who carried out the project entitled “**A
study on impact of skilled labor shortage in construction
industry ” students of Sathyabama Institute Of Science and
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ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. G. Bhuvaneswari, MBA., Ph.D., Dean - School of Management Studies** and **Dr. A. Palani, M.Com., M.Phil., M.B.A., Ph.D., Head of the Department, Dept. of Business Administration** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Professional Training Guide **Dr. A.S. Princy MBA, Ph.D** for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Business Administration** who were helpful in many ways for the completion of the training.

DECLARATION

I SHATHISH.S (39280091) hereby declare that the Project Report entitled “**A study on impact of skilled labor shortage in construction industry** . done by me under the guidance of **Dr.A.S.Princy (internal)** and is submitted in partial fulfillment of the requirements for the award of Bachelor’s of commerce.

DATE:

Shathish s

PLACE:

signature of candidate

ABSTRACT

Skilled labour shortage is the shortfall of workforce in specific trades or shortage of workforce with requisite skills. The paper seeks to identify areas where there are skilled labour shortages in the building construction industry within the Central Region. A survey research approach was employed to get the study population that consisted of project managers, site engineers, site foremen and engineers working with contactors. Questionnaires were designed based on the research specific objectives and used as the main instrument for data collection. Findings from the study revealed that the shortage of skilled manpower was from painters and decorators, electricians and tile workers. Further findings showed that skilled labour shortage was caused by socio-economic conditions, external forces, job attractiveness, job characteristics, job satisfaction, industry limitations and personal factors. Employees should be encouraged to develop their trade competences and change their attitude to work, while employers should build their manpower base through training.

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INTRODUCTION

Skilled labour plays a very important role in the success of every construction project and stands tall in the advent of sophistication and technology in building construction project delivery. Skilled manpower as pointed out by Gudienė et al. (2013) is considered to be one of the critical factors of production in construction projects. As activities on site are largely reliant on skilled workforce (Mackenzie, Kilpatrick, & Akintoye, 2000), any shortage has a negative implication for the construction industry. The construction industry in Ghana alone provided employment for about 2.3 % of active employees (Amankwa, 2003). The Growth Domestic Product (GDP) recorded by the industry in 2018 was 7.2 % (Ofori, 2018), which showed that the percentage growth could be improved further with highly skilled manpower. Carliner (1998) indicated that contractors found it difficult to attract the requisite skilled labour for their numerous projects due to the high demand for such workforce. The problem is even compounded because many of the available skilled workforce have a low level of skills in their respective trade areas. However, the extent of shortage differs from trade to trade and this has put pressure on project delivery in the country. The study seeks to identify the trade areas with shortage of manpower and come out with some needed characteristics that should be possessed by skilled employees in the region.

Skilled labor shortages on a project are initiated by both the available quantity and/or qualification of skilled labors. Convenience sampling technique was used in the administration of questionnaire for this study. After taking into consideration the large number of potential respondents in the sample size along with the information required to achieve the research objectives the research instrument decided on was a questionnaire. Due to the quantitative nature of the current research, Statistical Package for Social Sciences (SPSS, version 22.0) was used to analyse the data obtained from the questionnaires. After assessment of the questionnaires it was found that the total number of questionnaires administered was 150 respondents. However, on closer inspection this number was reduced to an actual usable sample size of 111 respondents or 74 % of the total questionnaire administered.[3] This was due to 19 questionnaires that were incorrectly completed and as a result deemed ineligible for use. In addition, 20 questionnaires were not retrieved up to the time of

analysis, as it was taking a longer time and difficulty in locating the respondents. Like Scale scoring of 1–5 was used for the questionnaire administered.

Skilled labour shortage happened worldwide including United States, United Kingdom, Canada, India, Bahamas and Malaysia. Government and business organisation of Canada recommended immigration of skilled worker as a strategy to deal with shortage issue. McMullin et al (2004) asserted that it maybe solve shortage problem in a short time, but it still does not solve the core of the problem [10].

Meanwhile, in Alaska Business Monthly mentioned that the biggest challenge was when they need to replace retiring workers. In 2008, they need around 1,000 replacements but recruiting source is limited. As a solution, they target young people in a program called 'The Build Up' and continued by 'On Site'. These program aims to cultivate interest and skills in construction works since young and eventually they will become as source of skilled labour in the future [11]. This method can be human resource solution for the shortage issue although it took quit sometime.

Secretary General of Master Builders Association Malaysia (MBAM) Ir. Yap Yoke Keong (2009) said that Malaysia starting to face shortage of quality people in construction especially when 9th Malaysia Plan was introduced in 2006, there are many development project poured in the construction market but skilled workers are not enough to fill the vacancies in the industry. This shortage problem continued until now [24]. Vacancies reported in construction industry by Bank Negara Annual Report 2010 shown as figure

INDUSTRY PROFILE

Construction Industry is one of the most booming industries in the whole world. The whole process of construction can be divided into various segments like

- Construction of buildings: Residential, industrial, commercial, and other buildings.
- Heavy and civil engineering construction: Building of sewers, roads, highways, bridges, tunnels, and other projects.
- Specialized activities like carpentry, painting, plumbing, and electrical work.

Infrastructure is a life breath of any nation as it provides strong base for the growth of others sectors of an economy. For building huge infrastructures, machineries both heavy and light are necessary. [Construction machineries](#) like cranes, loaders, dumpers, excavators, mixers, crushers, etc. are serving the purpose very well.

Construction industry overview

All over the world, construction industry trends have shown a rise in its rate of growth. The different sections of the construction industry are showing differential growth pattern all over the world.

- Construction industry contributes a huge amount to the world GDP amounting to 1/10th of the same.
- Immense potential in generating huge amount of employment.
- Construction industry offers employment to around 7% of the total employed work force around the globe.
- The industry consumes around 2/5th of the total consumed energy throughout the world making it the largest sector in respect of consumption of energy.
- Resource utilization amounts to half of the total resource used all over the world.

Construction Industry is the base of the world economy and this is achieved through the construction of residential and commercial properties, bridges, tunnels, roads, railway tracks, airports, etc.

Construction industry trends

The trends of this industry can be stratified as per different countries and segments. For giving an overview of the construction industry trends, the best examples are USA and India. In USA, heavy engineering construction sector has increased at the rate of 5.2%, residential real estate sector at the rate of 15% and commercial residential sector at 7.5% in the financial year 2005. But this upward trend lost its

shine in the years 2006 and 2007, especially in the residential real estate sector. This was evident from the fact that there was a fall in the sales of the homes.

On the other hand, India is seeing a boom in the construction sector. This is due to government initiative in developmental facilities expansion. Economic upsurge has also generated enhanced demand generation in the real estate sector. Construction Industry in India is rising at a phenomenal rate of 7 to 8% p.a.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

In this chapter, the researcher has made an attempt to study and understand the concept of shortage of skilled labor. This attempt includes, understanding the basic concept of shortage of skilled labor, analysing research studies made by earlier researcher in respect of skill labor shortage in construction industry , for this researcher has used various books, research journal and website. The detail list is further elaborate in the bibliography. Through this literature survey researcher wants to find out which are the important parameters of customer satisfaction in respect of shortage of skill labor in construction industry

2.2 List of review

Giorgio Brunello (16-OCT-2021). REVIEW OF CONSTRUCTION LABOUR DEMAND AND SHORTAGE. There are different approaches to measure skill mismatch that produce substantially different results. Measures relying on self-reported mismatch produce a much lower share of well-matched individuals than statistical measures that compare individual skills with average skill in the occupation

MISS. SOVITHA VARADARAJAH(2-2020). SKILL LABOUR SHORTAGE IN CONSTRUCTION INDUSTRY IN BATTICALOA. using SPSS skill labour is a primary and necessary source for the construction industry. Shortage of the skill labour is major problem in construction industry. This research studied the causes, effects and measures related to the problem of “shortage of skilled labour in the construction industry”, the questionnaire survey conducted in the 30 construction industries among the population of 157 companies in Batticaloa. Collected data were analysed and ranked software

THWALA,WD(23-april-2009). SKILLED LABOUR SHORTAGE IN CONSTRUCTION CONTRACTORS . The skilled labour shortage is one of the most factors affecting the construction industry currently. Most of the contractors are experiencing this shortage which cost them tremendous time and money.

Biren patel',prof J.J Bhavsar DR. jayeshkumar pitroda (4-2017). A CRITICAL LITERATURE REVIEW OF LABOUR PRODUCTIVITY IN BUILDING CONSTRUCTION . Major factor affecting labour productivity are low payment, poor construction methods, use of technology/level of mechanization, delay in material delivery etc. in central Gujarat region.

Anthony D. Azar, constantin militaru , Claudia p. matter (8-aug-2018). LABOR SKILL SHORTAGE IN CONSTRUCTION MARKET: AN IN DEBTH OF LEBANCE MARKET . With regard to the above presented study, we can summarize that the presented factors are essential parameters related to the skill shortage in construction industry, which by turn, impact the overall performance of the project.

MARIO GALIC(2-JAN-2021) REVIEW OF CONSTRUCTION LABOUR DEMAND AND SHORTAGES IN EU. open” borders policy, ageing population, industry growth, economic imbalance among EU Member states, etc. Labour markets in the Member States all have varied regulatory frameworks, but in each Member State, there are continuously reported shortages of workers which need to be compensated by importing labour force with relevant qualifications from third countries or within the free movement of workers in the EU.

SHAHID HUSSAIN, TALIB HUSSAIN (31-march-2020) . IMPACT OF SKILLED AND UNSKILLED LABOUR ON PROJECT PERFORMANCE USING STRUCTURAL EQUATION MODELLING APPROCH. The current study examined labor skills and project performance framework to test the research hypothesis in the conceptual

model. The study found that two kinds of labor force involved in the construction industry to execute the project, such as skilled and unskilled.

EESWARE ATLURI(2018). EFFECTIVE STRATEGIES TO REDUCE THE IMPACT OF SKILLED WORKER SHORTAGES IN THE CONSTRUCTION COMPANY.

Literature was gathered from existing literature to identify the impacted areas due to skilled worker shortages. Telephone interviews were conducted to discover the potential strategies from the industry experts. A survey instrument was developed and piloted by an experienced researcher. The survey instrument was refined and distributed through DBIA email list. Data from both the methods was analyzed to identify the effective strategies. The data from telephone interviews were supplemented by the survey.

BELINDA BRUKER JURICIC (JAN 2021). REVIEW OF CONSTRUCTION LABOR DEMAND AND SHORTAGE. The free movement of people is one of the rights of all citizens of the EU which also includes the free movement of workers. Labour shortages in the EU are expected to increase in the future due to a declining population and an ageing workforce. In order to recognize and forecast labour shortages, EU Member states use a variety of instruments but they do not answer as to whether it is possible to use migrant labour to appease those shortages

BENJAMIN AKOMAH(AUG 2020) Skilled Labour Shortage in the Building Construction. Industry Within the Central RegionSkilled labour plays a very important role in the success of every construction project and stands tall in the advent of sophistication and technology in building construction project delivery. Skilled manpower as pointed out by Gudiené et al. (2013) is considered to be one of the critical factors of production in construction projects

CLAUDIA P. MATTAR (AUG 2018). This paper describes an in-depth study of the actual labor skills and shortages in the Lebanese local construction market; it identifies the causal factors contributing to such shortage and ranks them depending on respondents' opinion in order to elicit the importance of these factors. It raises the

awareness about professional skills in the industry and promotes recommendations for improving them for the benefit of the market

Dr. Jayeshkumar Pitroda³(2017). A Critical Literature Review of Labour Productivity in Building Construction. Through a systematic review of selected research papers from academic journals in construction management, major research areas such as factors affecting labour productivity, methods for labour productivity improvement, construction labour productivity trends and comparison are identified

WANG XUETONG(MARCH 2020). Impact of Skilled and Unskilled Labor on Project Performance Using Structural Equation Modeling Approach. The results provide adequate information to policy and decision makers concerning labor skills being a compulsory part of the operational strategy in accelerating the better execution and success of construction projects. The current study adds to the construction project management literature by examining the effect of labor skills on project performance positively or negatively, and the hypothesized model was developed that should be adopted by practitioners to ascertain labor skills for the successful execution of the project.

CONCLUSION

A literature review may comprise a fundamental part of a postulation or paper, or might be an independent survey of work regarding matter. Regardless, its motivation is to put each work with regards to its commitment to the comprehension of the subject under audit. Depit the relationship of each work to the other viable. Recognize better approach to decipher, and reveal insight into any holes in , past research. Resolve clashes among apprentey opposing past examination. Point the route forward for further research.

CHAPTER 3

RESEARCH METHLOGY

3.1 NEED FOR STUDY

- Skilled laborer is a key and primary resource that has a direct impact on the success of any construction company's project
- This study analyses the present situation of the construction industry with respect to skilled laborer by assessing the need to increase the number of skilled laborers and their skill level by identifying the causes and effects of the shortage of skilled labor
- Contractor do not provide trainee to labors, Younger generation unwilling to take part in construction firm" are the main causes for the skill labor shortage and "Delay in project duration, Cost overrun and more rework" are the main effects happened due to the skill labor shortage in construction companies

3.2 SCOPE OF STUDY

- Recruitment has become a large issue as a result of the labor shortage, therefore, it's more important than ever to hire efficiently and train new employees comprehensively.
- Training new employees efficiently is equally essential to retain new hires. Utilizing knowledgeable employees and regular training sessions is a great way to encourage workers while building their skill sets for the job.
- One considerable reason workers are choosing to leave their job is because of the poor management style of their superiors.
- Along with quality leadership and training, workers value the opportunity to grow in their field as well.

3.3 OBJECTIVES OF STUDY

- To analyze the collected data and determine the relationship between availability of skilled workers and performance parameters in projects.
- To develop model for correlation between causes of shortage of skilled workers and performance parameters of project.

3.3.1 PRIMARY OBJECTIVES

To study the shortage of skilled labor in construction industry

3.3.2 SECONDARY OBJECTIVES

- Younger generation unwilling to take part in construction
- Contractors do not provide training to labour
- After trained , skilled labour are trained for another carrier
- Delay in project duration due to skill labor shortage
- Unable to do quality work.

3.4 RESEARCH DESIGN

3.4.1 Descriptive research design

Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study

3.5 SOURCE OF DATA

Data collection is the term used to describe a process of preparing and collecting data.

PRIMARY DATA

Questionnaire given to 100 respondents

SECONDARY DATA

Websites and online journals, Published reports & Review of literature from published articles

3.6 STRUCTURE OF QUESTIONNAIRE

Questionnaire was divided into two sections. First part was designed to know the general information about employers perspective and the second part contained the respondent's opinions about impact due to covid 19.

3.7 SAMPLING TECHNIQUE

3.7.1 CONVENIENCE SAMPLING METHOD

A convenience sample is one of the main types of non-probability sampling methods.

A convenience sample is made up of people who are easy to reach.

3.8 PERIOD OF STUDY

The duration of study is from January 2021 to March 2021 which is a three months of study.

3.9 ANALYTICAL TOOLS

1. Percentage analysis

Research questions are always answered with a descriptive statistic: generally either percentage or mean. Percentage is appropriate when it is important to know how many of the participants gave a particular answer. Generally, percentage is reported when the responses have discrete categories.

2. Bar graphs

It is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A vertical bar chart is sometimes called a column chart.

A bar graph shows comparisons among discrete categories. One axis of the chart shows the specific categories being compared, and the other axis represents a measured value. Some bar graphs present bars clustered in groups of more than one, showing the values of more than one measured variable.

3. Pie charts

A pie chart is a circular statistical graphic, which is divided into slices to illustrate numerical proportion. In a pie chart, the arc length of each slice is proportional to the quantity it represents. While it is named for its resemblance to a pie which has been sliced, there are variations on the way it can be presented

3.10 LIMITATION OF STUDY

- * the study is based upon the fixing of skilled labor shortage in construction industry
- *The data collect for the research is fully on primary data given by the respondent. There is chance for personal bias. So the accuracy is not ture.
- * The number of respondent limited to 100.

CHAPTER 4

DATA ANALYSIS AND INTERPRTATION

4.1 PERCENTAGE ANALYSIS

TABLE 4.1.1 AGE OF RESPONDENT

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	18-25	5	5
2	25-35	17	17
3	35-45	60	60
4	More than 45	18	18
Total		100	100

Source; primary data

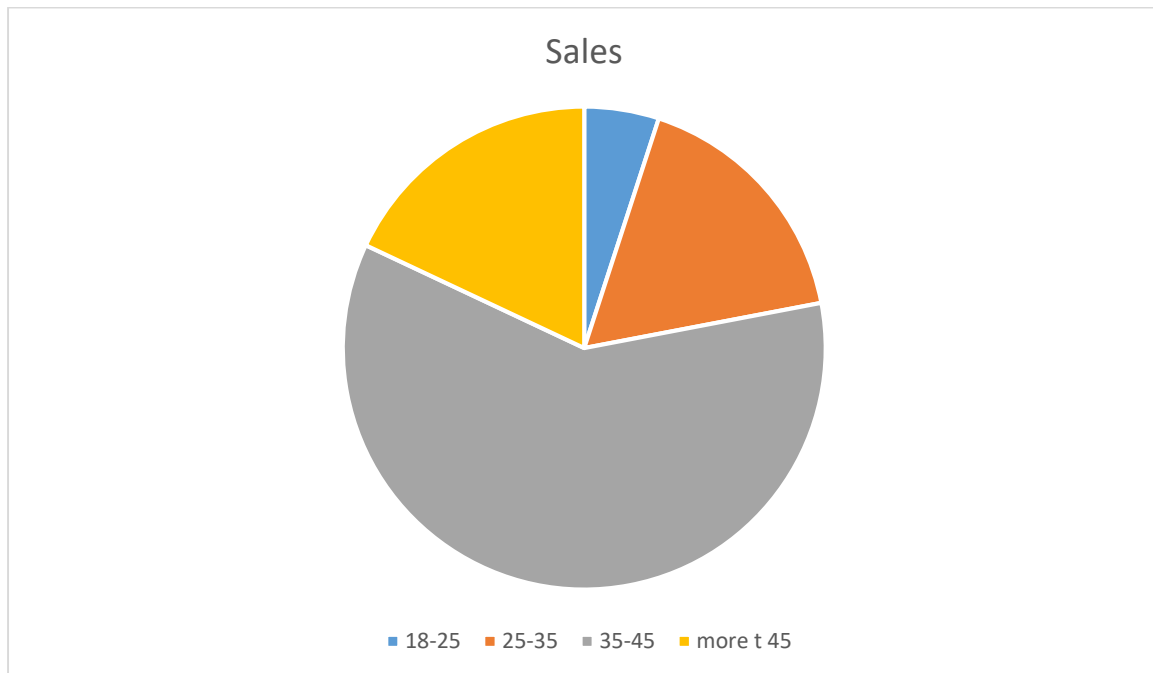


Chart 4.1.1 age of respondent

Interpretation

From the above table it is interpreted that the number of respondents for 18-25 (5%), between 25-35 (17%), between 35-45 (60%) , more than 45 (18%)

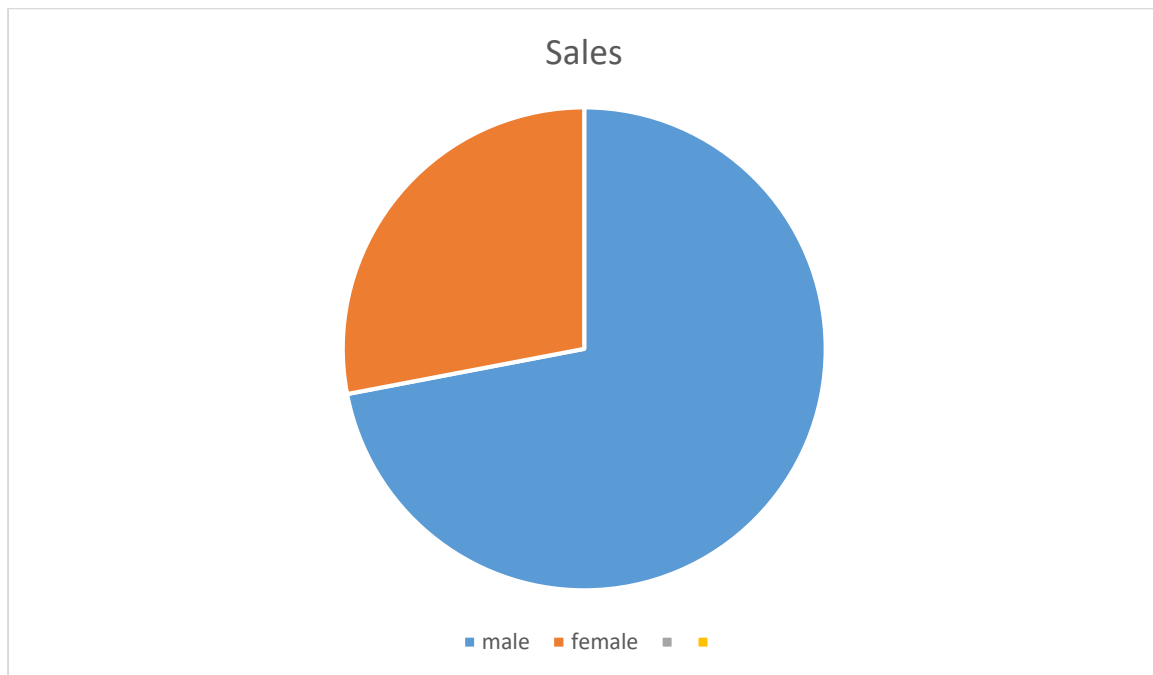
Inference

majority (60%) of the respondent age are 35-45

4.1.2 GENDER OF RESPONDENT

S.NO	PARTICULARS	NO .OF RESPONDENT	PERCENTAGE
1	MALE	72	72
2	FEMALE	28	28
	TOTAL	100	100

Source data: primary data



Interpretation

From the above table interpreted that the number of respondent for male is (72%), and the number of respondent for female is (28%)

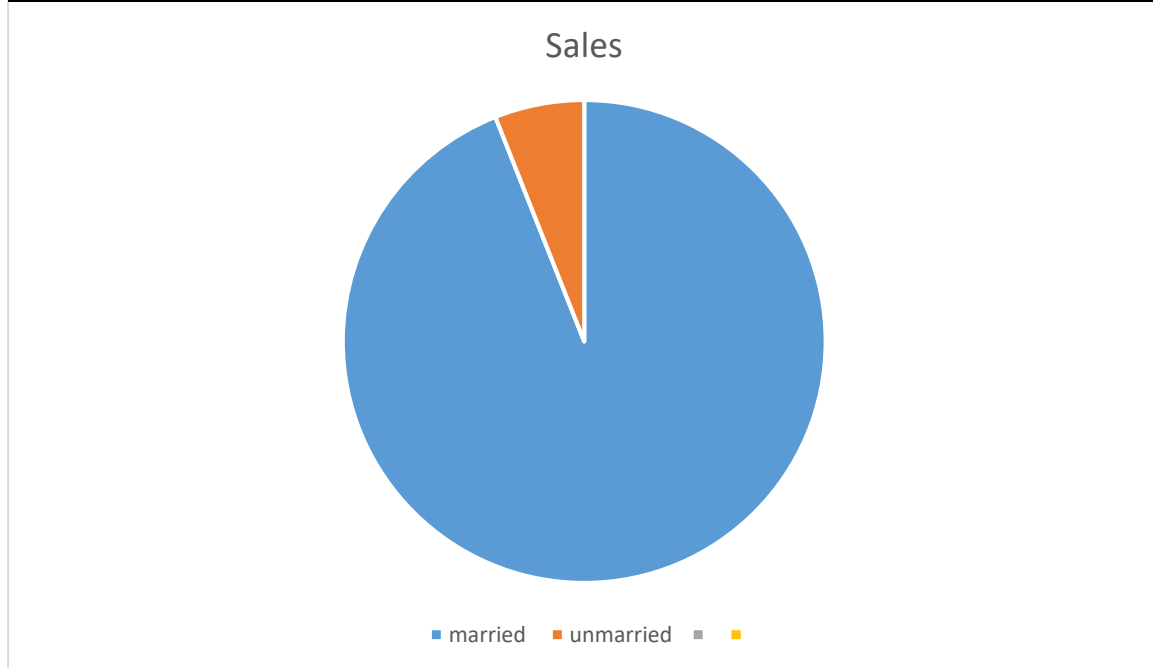
Inference

Majority (72%) of respondent are male

4.1.3 martial status of respondent

Source of data : primary data

S.NO	PARTICULARS	NO .OF RESPONDENT	PERCENTAGE
1	Married	94	94
2	Unmarried	6	6
	TOTAL	100	100



Interpretation

From the above table interpreted that the number of respondent for married is (94%), and the number of respondent for unmarried (6%)

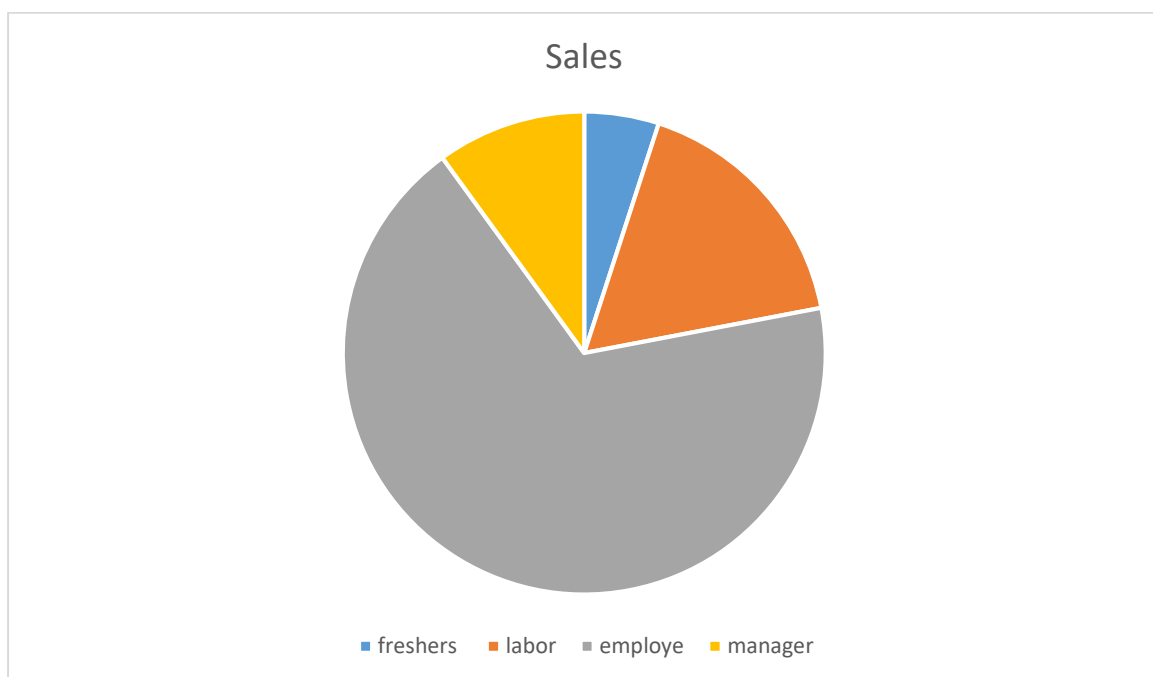
Inference

Majority (94%) of the respondent are married

4.1.4 occupation of respondent

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Freshers	5	5
2	Labor	17	17
3	Employee	68	68
4	Manager	10	10
Total		100	100

Source of data : primary data



Source of data : primary data

Interpretation

From the above table interpreted that number of respondent for freshers (5%), and number of respondent for labor is (17%), and number of respondent for employee (68%), and number of respondent for manager is (10%)

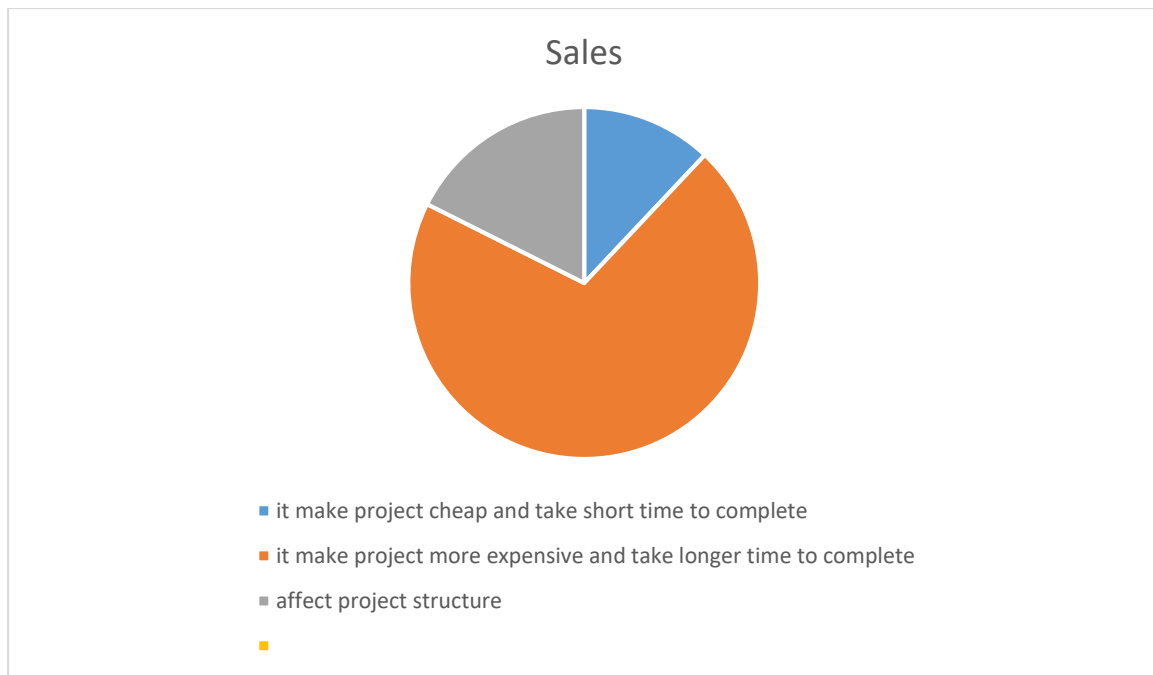
Inference

Majority (68%) of the respondent are employee

4.1.5. how does the labor shortage affect the construction company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	It make project cheap and take short time to complete	40	40
2	It ake project more expensive and take longer time to complete	48	48
3	Affect project structure	12	12
Total		100	100

Source: primary data



Interpretation

From the above table interpreted that the number of respondent choose it make project cheap and short time to complete (40%), and number of respondent choose it make project more expensive and take longer time complete (48%), and number of respondent choose affect project structure (12%)

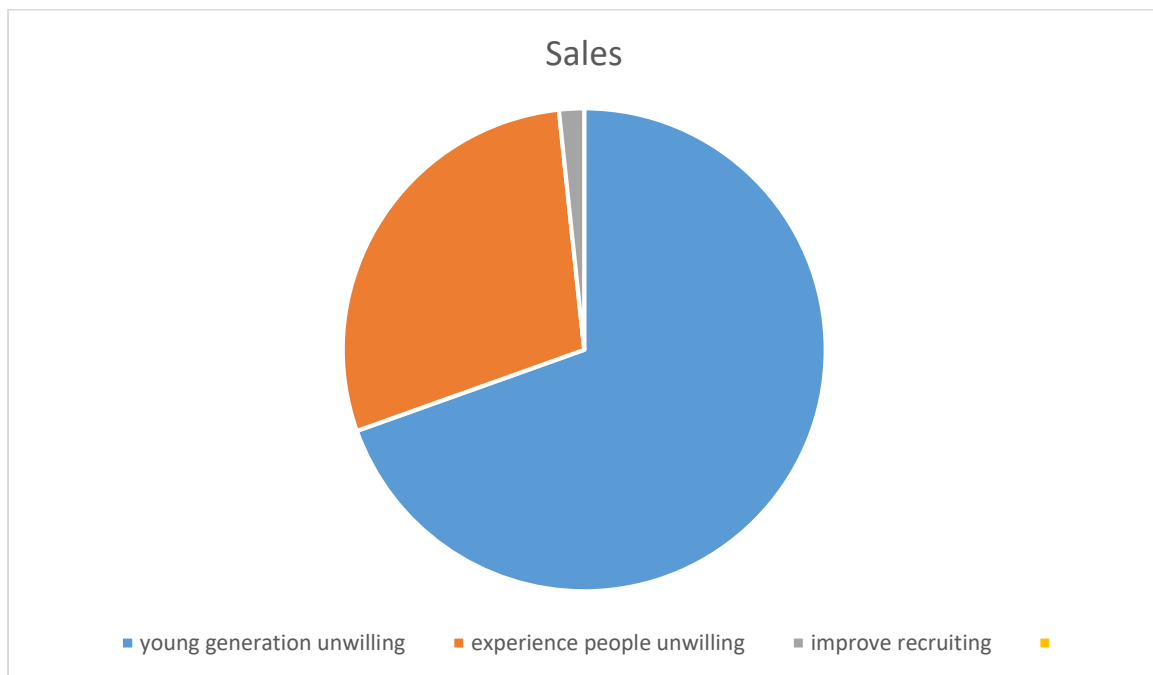
Inference

Majority (48%) of the respondent choose it make project more expensive anf take longer time to complete

4.1.6 why is there skill shortage in the construction company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Young generation unwilling	58	58
2	Experience people unwilling	24	24
3	Improve recruiting	18	18
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose young generation unwilling (58%), and the number of respondent choose experience people unwilling (24%), and the number of respondent choose improve recruiting (18%)

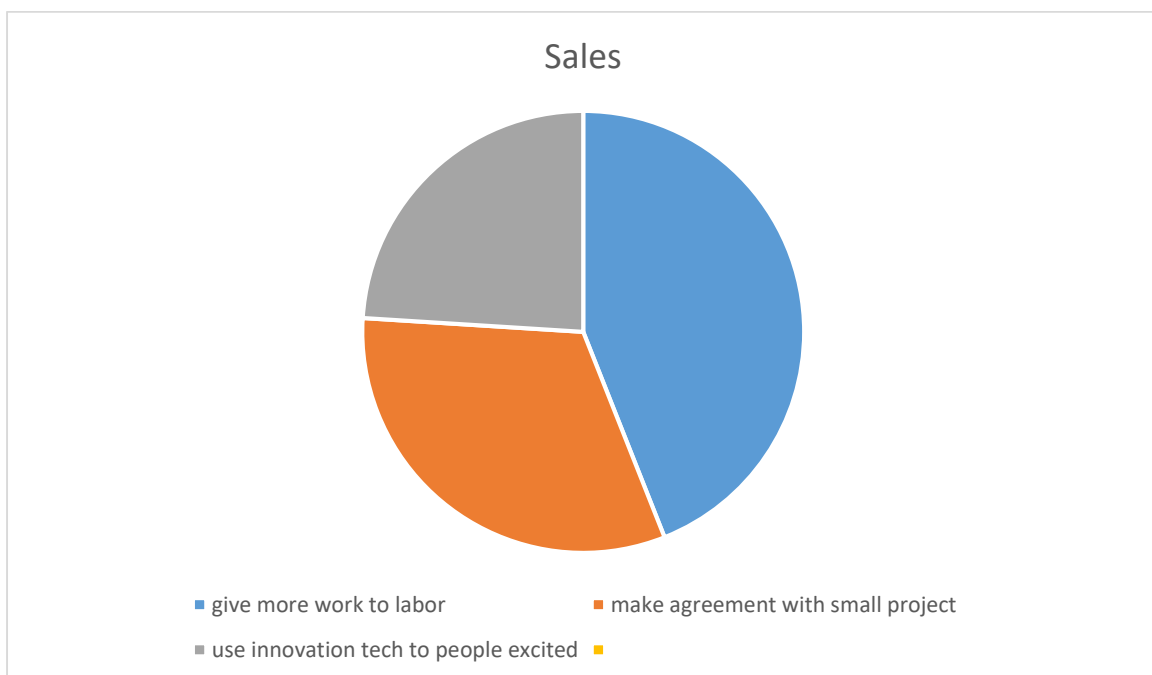
Inference

Majority (58%) of the respondent choose young generation unwilling

4.1.7 how do u retain your construction project when there is a labor shortage

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Give more work to labor	44	44
2	Make agreement with small project	32	24
3	Use innovation tech to get people excited	24	24
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose give more work to labor (44%), and number of respondent choose make agreement with small project (32%), and number of respondent choose use innovation tech to get people excited

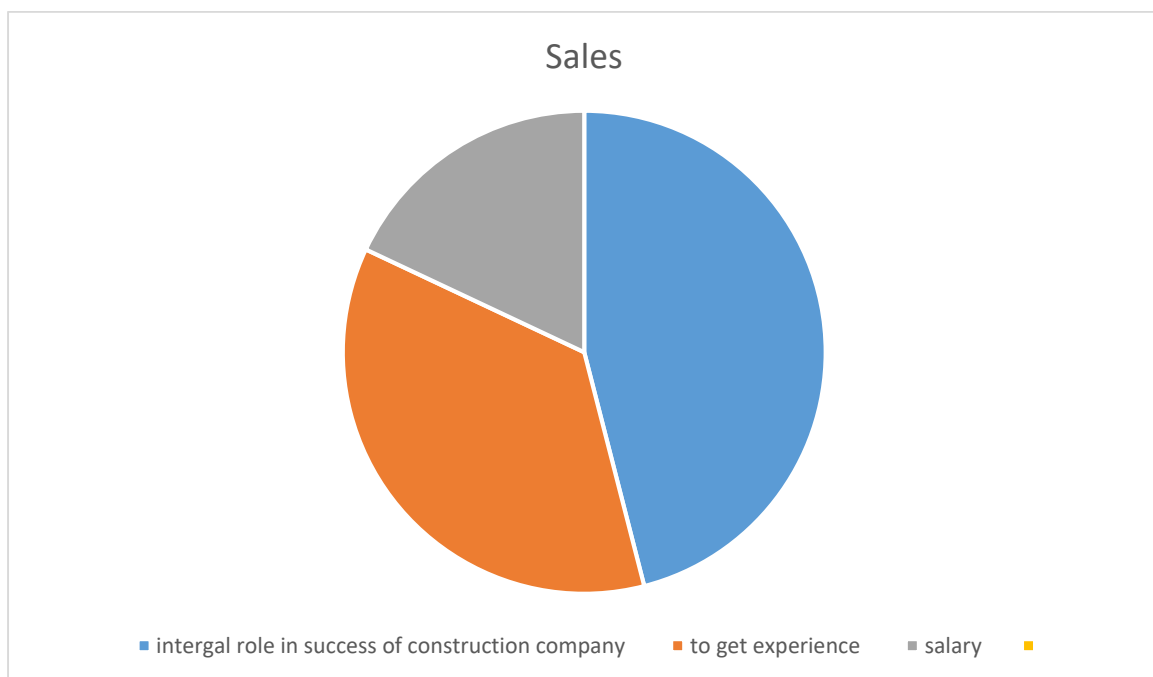
Inference

Majority (44%) of the respondent choose dive more work to labor

4.1.8 what role would a skilled labor should play in construction company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Integral role in success of construction company	46	46
2	To get experience	36	36
3	Salary	18	18
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose integral role in success of construction company (46%), and the number of respondent choose to get experience (36%), the number of respondent choose salary (18%)

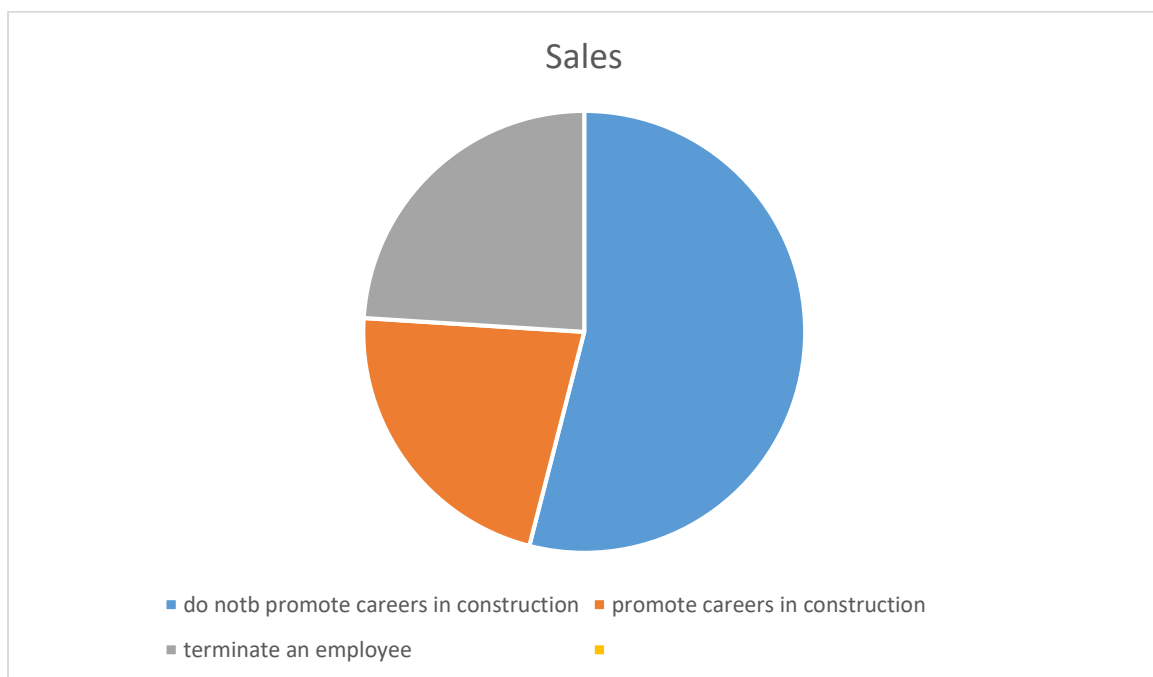
Inferemce

The majority (46%) of the respondent choose integral role in the success of construction company

4.1.9 how do u solve lack of skilled worker in construction company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Do not promote careers in construction	54	54
2	Promoting careers in construction	22	22
3	Terminate an employee	24	24
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that number of respondent choose do not promote careers in construction (54%), and number of respondent choose promote careers in construction (22%), number of respondent choose terminate an employee (24%)

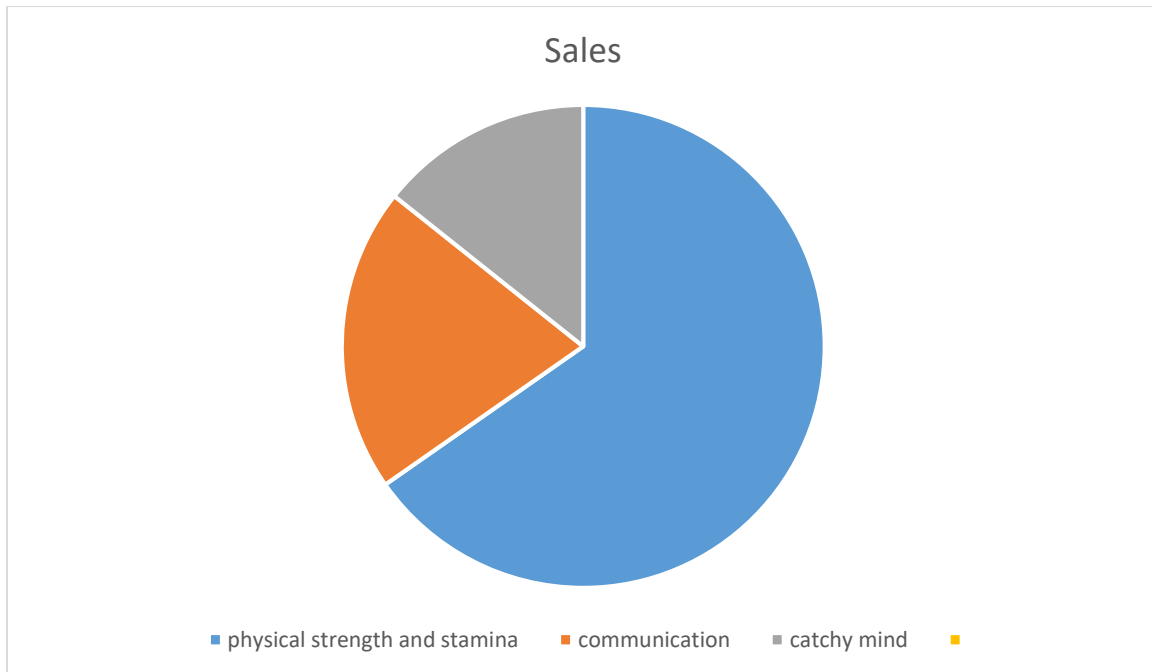
Inference

The majority (54%) of the respondent choose do not promote career in construction

4.1.10 what kind of skill do u need for construction

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Physical strength and stamina	65.3	65.3
2	Communication	20.4	20.4
3	Catchy mind	14.3	14.3
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose physical strength and stamina (65.3%), and the number of respondent choose communication (20.4%), number of respondent choose catchy mind (14.3)

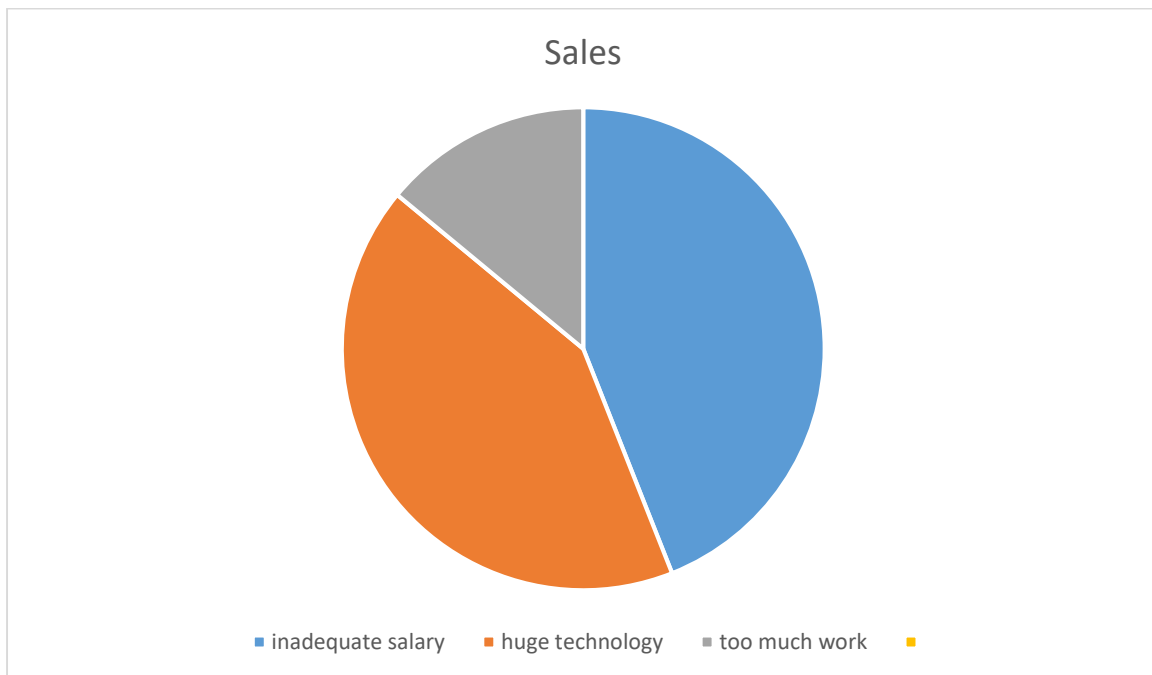
Inference

The majority (65.3%) of the respondent choose physical strength and stamina

4.1.11 what is the one of the direct reason of the skill shortage in the indian construction company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Inadequate salary	44	44
2	Huge technology	42	42
3	Too much work	14	14
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose inadequate salary (44%), and the number of respondent choose huge technology (42%), number of respondent choose (14%)

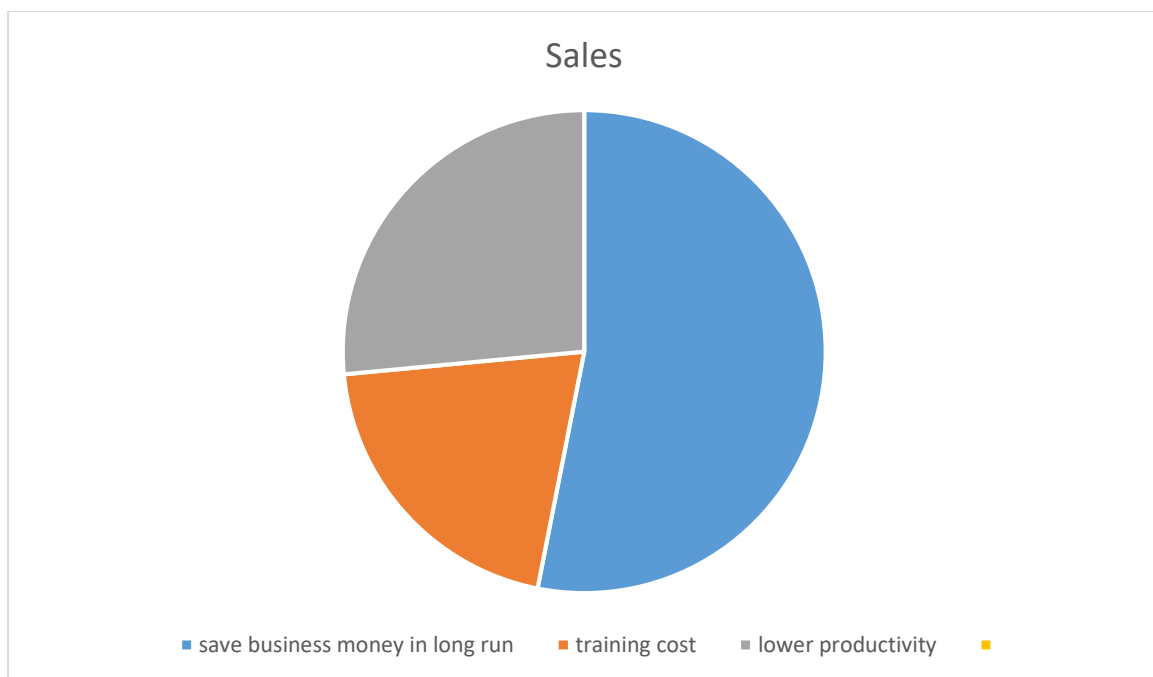
Inference

The majority (44%) of the respondent choose inadequate salary

4.1.12 why are skillfull worker prefer over unskilled worker by all company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Save business money in long run	53.1	53.1
2	Training cost	20.4	20.4
3	Lower productivity	26.5	26.5
Total		100	100

Source : primary data



Interpretation

From the above table interpreted the number of respondent choose save business money in long run (53.1%), and the number of respondent choose training cost (20.4%), the number of respondent choose lower productivity (26.5%)

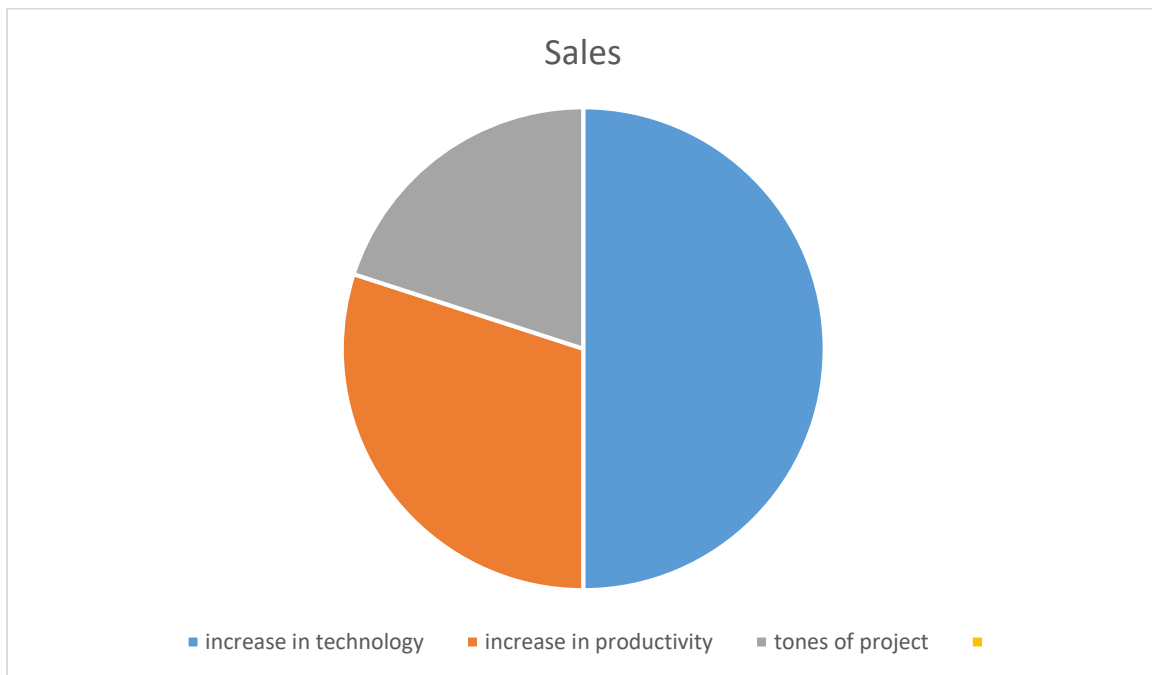
Inference

The majority (53.1%) of the respondent choose save business money in long run

4.1.13 why is the demand of skilled labor is steadily increasing

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Increase in technology	50	50
2	Increase in productivity	30	30
3	Tones of project	20	20
Total		100	100

Source : primary data



Interpretation

From the above table interpreted that the number of respondent choose increase in technology (50%), number of respondent choose increase in productivity (30%), number of respondent choose toes of projrt (20%).

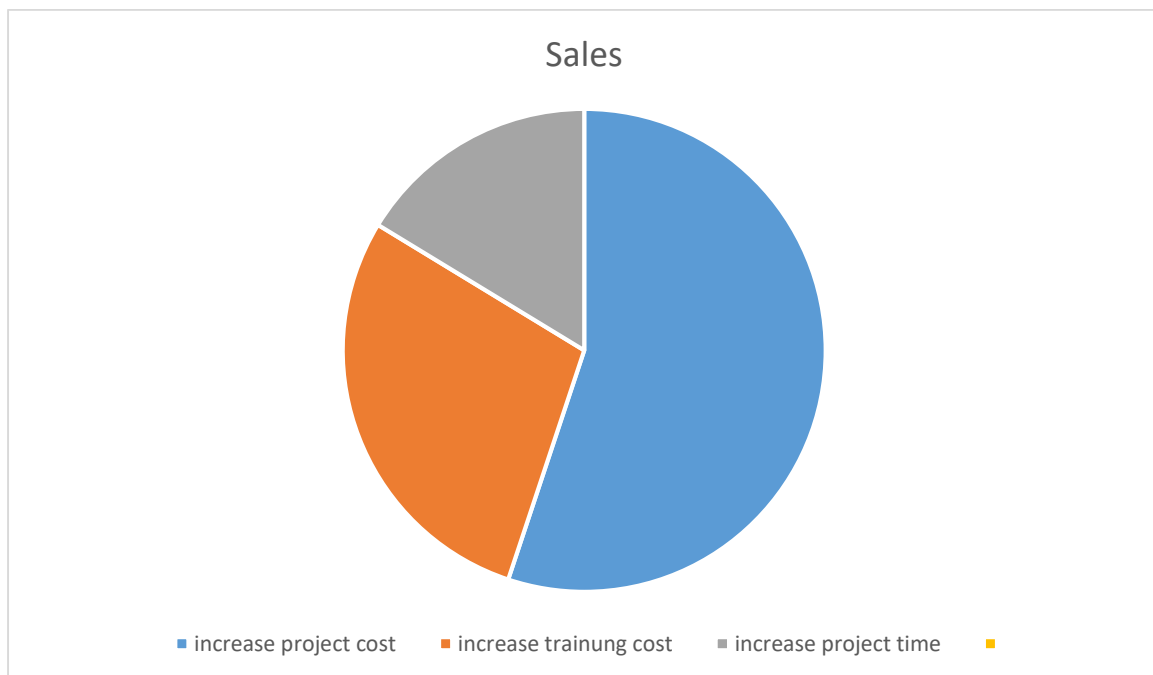
Inference

The majority (50%) of the respondent choose increase in technology

4.1.14 how can lack of skill cause problem for a company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Increase project cost	55.1	55.1
2	Increase training cost	28.6	28.6
3	Increase project time	16.3	16.3
Total		100	100

Source : primary data



Interpretation

From the above table interpreted that the number of respondent choose increase project cost (55.1%), number of respondent choose increase in training cost (28.6%), number of respondent choose increase in project time (16.3%).

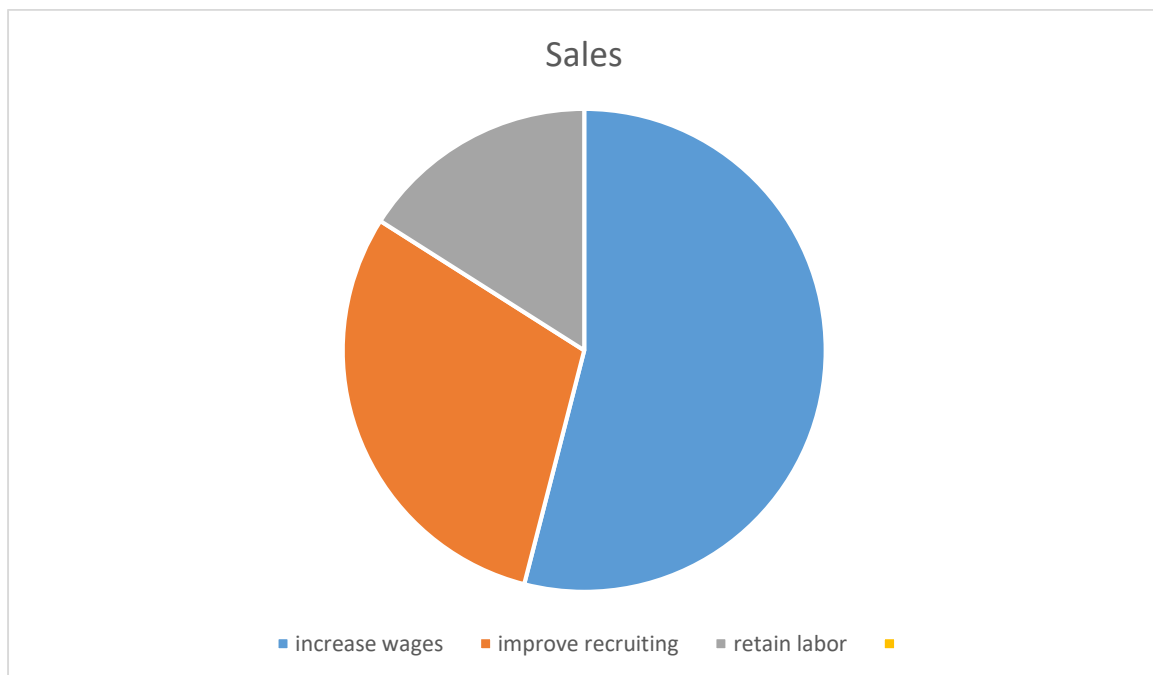
Inference

The majority (55.1%) of the the respondent choose increase project cost

4.1.15 how can we solve labor shortage problem

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Increase wages	54	54
2	Improve recruiting	30	30
3	Retain labor	16	16
Total		100	100

Source : primary data



Interpretation

From the above table interpreted that the number of respondent choose increase wages (54%), and number of respondent choose improve recruiting (30%), number of respondent choose retain labor (16%)

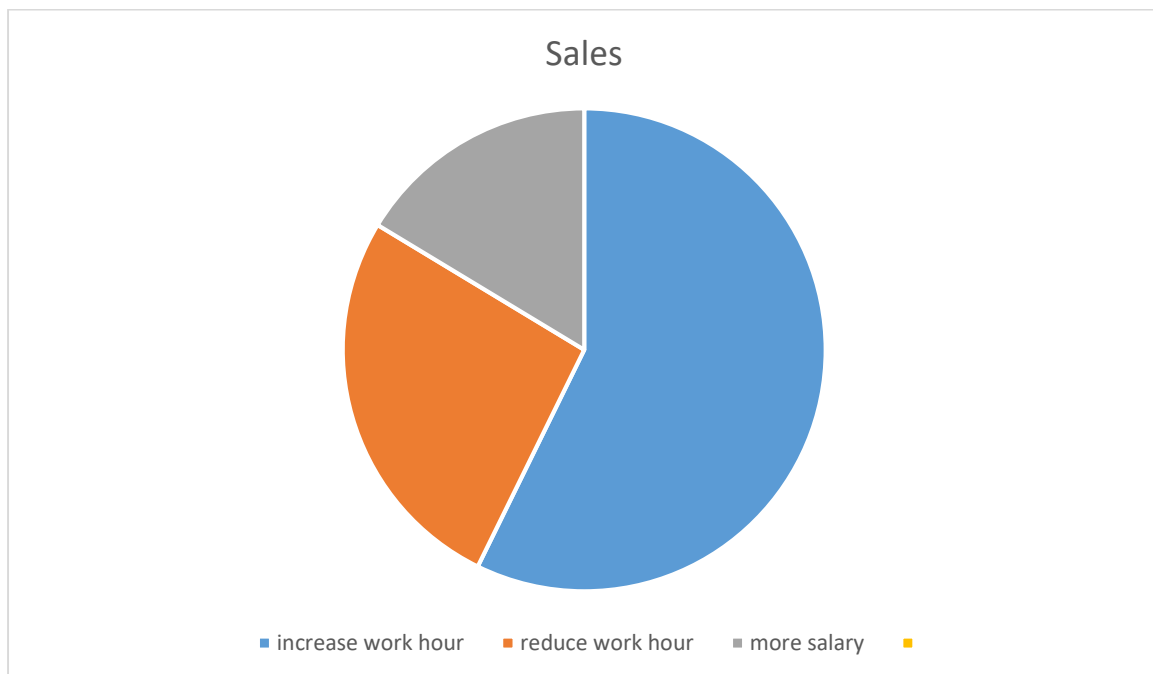
Inference

The majority (54%) of the respondent choose increase wages

4.1.16 how can employee reduce labor costs without downsizing the company

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Increase work hour	57.1	57.1
2	Reduce work hour	26.3	26.3
3	More salary	16.3	16.3
Total		100	100

Source : primary data



Interpretation

From the above table interpreted that the number of respondent choose increase in work hour (57.1%), the number of respondent choose reduce work hour (26.3%), the number of respondent choose moee salary (16.3%)

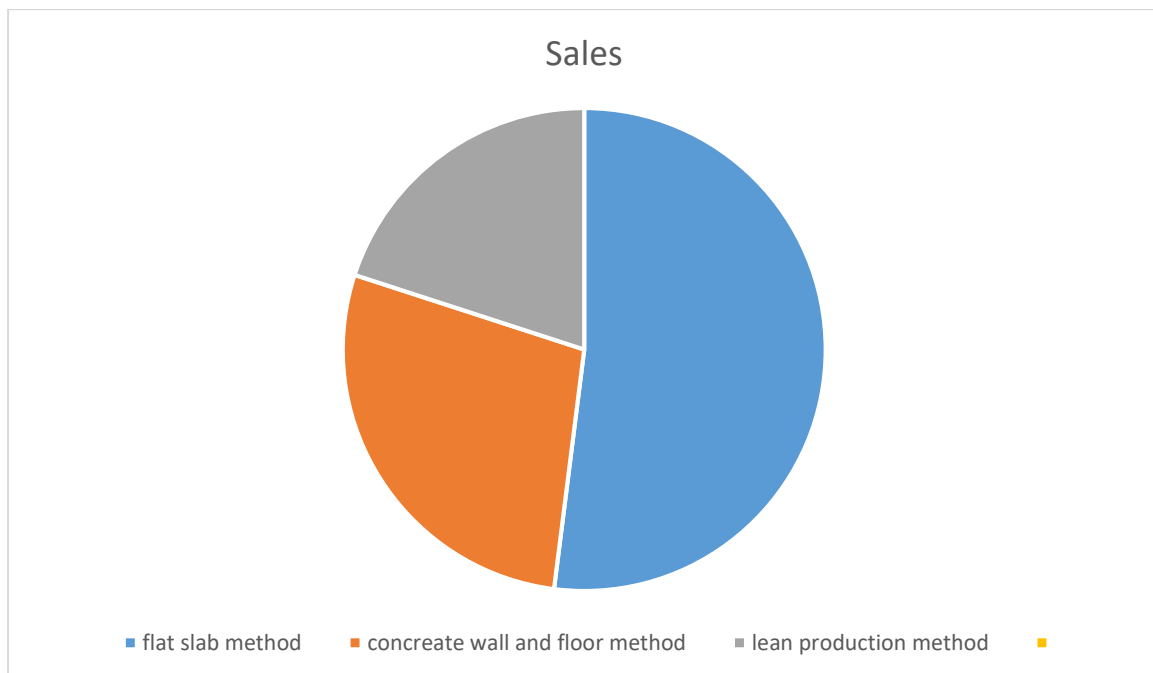
Inference

The majority (57.1%) of the respondent choose increase work hour

4.1.17 what manufacturing technology reduce labor cost

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Flat slab method	52	52
2	Concreate wall and floor method	28	28
3	Lean production method	20	20
Total		100	100

Source : primary method



Interpretation

From the above table interpreted that the number of respondent choose flat slab method (52%), the number of respondent choose concrete wall and floor method (28%) , the number of respondent choose lean production method (20%)

Inference

The majority (52%) of the respondent choose flat slab method

4.1.18 why labor important for an industry

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Work done by them is very essential	60	60
2	Increase productivity	26	26
3	Increase economy	14	14
Total		100	100

Source : primary method



Interpretation

From the above table interpreted that the number of respondent choose work done by the is very essential (60%), the number respondent choose increase productivity (26%), the number of respondent choose increase economy (14%)

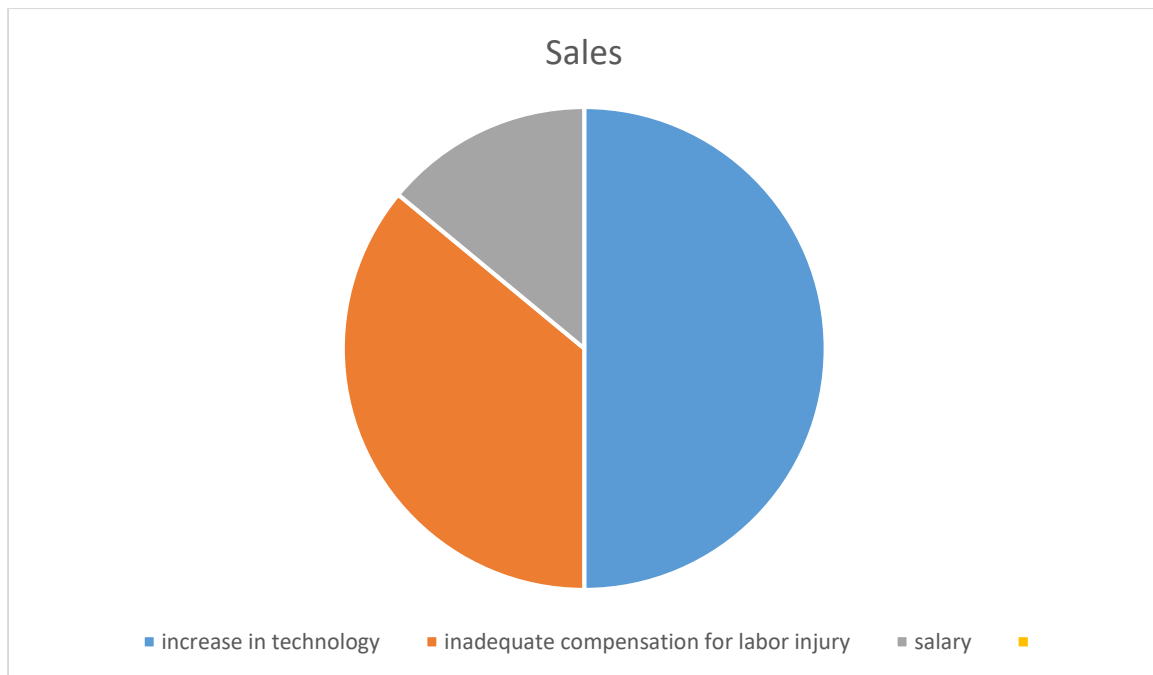
Inference

The majority (60%) of the respondent choose work done by them is very essential

4.1.19 what problem did the labor faced with the industry

S NO	PARTICULARS	NO OF RESPONSES	PERCENTAGE
1	Increase in technology	50	50
2	Inadequate compensation for labor injury	36	36
3	Salary	14	14
Total		100	100

Source of data : primary data



Interpretation

From the above table interpreted that the number of respondent choose increase in technology (50%), the number of respondent choose inadequate compensation for work injury (36%), the number of respondent choose salary (14%)

Inference

The majority (50%) of the respondent choose increase in technology

Chapter 5

FINDINGS

1. Majority (60%) of the respondent age are 35-45
2. Majority (72%) of respondent are male
3. Majority (94%) of the respondent are married
4. Majority (68%) of the respondent are employee
5. Majority (48%) of the respondent choose it make project more expensive and take longer time to complete
6. Majority (58%) of the respondent choose young generation unwilling
7. Majority (44%) of the respondent choose give more work to labor
8. The majority (46%) of the respondent choose integral role in the success of construction company
9. The majority (54%) of the respondent choose do not promote career in construction
10. The majority (65.3%) of the respondent choose physical strength and stamina
11. The majority (44%) of the respondent choose inadequate salary
12. The majority (53.1%) of the respondent choose save business money in long run
13. The majority (50%) of the respondent choose increase in technology
14. The majority (55.1%) of the the respondent choose increase project cost
15. The majority (54%) of the respondent choose increase wages

16. The majority (57.1%) of the respondent choose increase work hour
17. The majority (52%) of the respondent choose flat slab method
18. The majority (60%) of the respondent choose work done by them is very essential
19. The majority (50%) of the respondent choose increase in technology

5.1 SUGGESTION

To overcome labor shortage and increase labor quality, introducing vocational skill development program for both on-site and off-site is very effective in increasing multi skilled labor and productivity of the labor . The training shall be provided to the unskilled worker to bring them in line with industrial recruitment and skilled worker to the multi-skilled worker for enhancing the cost saving and more diverse of knowledge among the labor . The collaborative training will be the initiative to establish a strong linkage between the stakeholder and training bodies to serve the collective interest and support mutually .To attract younger generation into the construction industry by changing the industry image

5.2 conclusion

The findings revealed that, most significant causes of low skilled workers performance are low wages, lack of sufficient skill acquisition centers, lack of incentive schemes programmed, Vulnerability to safety & health care services & lack of standard salary scales for skilled workers. , Contractor do not provide trainee to labors, Younger generation unwilling to take part in construction firm” are the main causes for the skill labor shortage and “Delay in project duration, Cost overrun and more rework” are the main negative consequences happened because of skill labor shortage in construction industry

QUESTIONNAIRE

1. Age of respondent
 - a) 18-25
 - b) 25-35
 - c) 35-45
 - d) More than 45

2. Gender of respondent ?
 - a)male
 - b)female

3. Martial status ?
 - a)married
 - b)unmarried

4. Occupation of respondent ?
 - a)fresher
 - b)labor
 - c)employe
 - d)manager

5. How does labor shortage affect the construction industry ?
 - a)it make project cheap and take short time to complete
 - b) it make project more expensive and take longer time to complete
 - c) affect project structure

6. Why is there a skill shortage in construction industry ?
 - a)young generation unwilling
 - b)experience people unwilling
 - c)improve recruiting

7. how do u retain your construction project when there is labor shortage ?

- a) give more work to labor
- b) make agreement with small project
- c) use innovation technology to get people excited

8. what role would a skilled labor play in construction company ?

- a) intergal role in success of construction company
- b) to get experience
- c) salary

9. how do u solve lack of skilled worker in construction ?

- a) do not promote careers in construction
- b) promoting careers in construction
- c) terminate an employee

10. what kind of skill do u need for construction ?

- a) physical strength and stamina
- b) communication
- c) catchy mind

11. what is the one of the direct reason of skill shortage in indian construction industry?

- a) inadequate salary
- b) huge technology advance
- c) too much work

12, why skilful worker prefers over unskillful worker by all company ?

- a) Save business money in long run
- b) Training cost
- c) Lower productivity

13) why is the demand of skilled labor steadily increasing ?

- a) increase in technology
- b) increase productivity
- c) tones of project

14) how can a lack of skill cause a problem for a company ?

- a) increase project cost
- b) increase training cost
- c) increase project time

15) how can we solve labor shortage problem ?

- a) increase wages
- b) improve recruiting
- c) retain labor

16) how can employee reduce labor cost without downsizing the company ?

- a) increase work hour
- b) reduce work hour
- c) more salary

17) what manufacturing technology reduce labor cost ?

- a) flat slab method
- b) concrete wall and floor method
- c) lean production method

18) why labor important for an industry ?

- a) work done by then is very essential
- b) increase productivity
- c) increase economy

19) what problem did the labor faced with the industries ?

- a) increase in technology
- b) inadequate compensation for work injury
- c) salary

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