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School of Mechanical and Industrial Engineering

Industrial Engineering Stream

MSC Research thesis on:

Investigation of Employee Productivity factors and Conceptual Model Development: A Case of NA Metal Industry and Engineering

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A Thesis Submitted to the School of mechanical and Industrial Engineering as Partial Fulfilment of the Requirements for the Degree of master's in in industrial Engineering

June 2021

Declaration

This thesis, titled "**Investigation of Employee Productivity Factors and Conceptual Model Development: A Case of NA Metal Industry and Engineering,**" is submitted in partial fulfillment of the requirements to award the degree M.S.C School of Mechanical and Industrial Engineering Addis Ababa University. Bezawit Endeshaw Tesema wrote the thesis under my supervision. To the best of my knowledge and belief, the work contained in this thesis has never been presented to any educational institution before.

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June 2021

DEDICATION

This thesis is dedicated to my mother who has helped me in all my ways.

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First, I would like to thank almighty God. All things that happen in my life is because of the love and forgiveness I get from God, I want to thank his mother St. Mary, all my guardian angels.

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Abstract

This research was carried out in NA Metal and Engineering in Ethiopia's, which is a metal producing company. The goal of this research is to create an improvement conceptual model by looking into the aspects that influence employee productivity. Employee productivity is a ratio of how much a person's knowledge and skills, as well as his work, influence the outcome.

According to the collected corporate data, the company's production plan capacity was 1196 trailers per year, whereas actual production during the last five years averaged 284 trailers per year. The discrepancy between actual and planned trailer production is 912 trailers per year, indicating that the company is producing below capacity. The cause of producing below capacity has been attributed to a variety of factors, one of which is a lack of employee productivity, which accounts for 18 percent of the company's productivity loss.

Workplace environment, workplace safety, information technology, human resource management, and organizational culture were chosen from a literature analysis as five elements that have a high impact on employee productivity. A well-structured questionnaire has been designed and distributed to all employees to study the influence of those elements on the selected case company. Software such as SPSS, Microsoft Excel, and Mind Manager were used to analyze the obtained data and display the results.

The study's findings reveal that factor such as work environment and workplace safety have a low impact on the case company, however human resource management and organizational culture have a strong impact. Meanwhile, the investigation reveals that technology has an equal good and negative impact on the selected case company's staff productivity. It is recommended that a future examination be undertaken on other elements, including a detailed investigation of the technology component.

Key words: Employee productivity, Employee productivity impairing and enhancement factor, conceptual model.

Table of Contents

DEDICATION	iii
ACKNOWLEDGEMENTS	iv
Abstract	v
Table of Contents	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
List of Abbreviations	xi
Chapter One	1
1. Introduction	1
1.1. Background of the study	1
1.2. Problem statement and justification	3
1.3. Objective of the Study.....	7
1.3.1. General objective.....	7
1.3.2. Specific objective	7
1.4. Significance of the study.....	8
1.5. Scope and Limitation of the study	8
1.5.1. Scope of the study	8
1.5.2. Limitation of the study	8
1.6. Organization of the paper.....	8
Chapter Two.....	9
2. Literature Review	9
2.1. Introduction.....	9
2.2. Employee Productivity.....	9
2.2.1. What is employee productivity?	9
2.2.2. Why employee productivity?	10
2.2.3. Employee Productivity Impairing Factors.....	11
2.3. Productivity Enhancement factors	12
2.3.1. Employee Productivity Enhancement factors.....	13
2.4. Five factors that have a high impact on employee productivity	14
2.4.1. Working Environment	14
2.4.2. Workplace safety and health	15
2.4.3. Information technology	15
2.4.4. Human resource management (HRM).....	16

2.4.5.	Organization culture	18
2.5.	Chapter summary based on the research objectives.....	19
2.6.	Literatures review Gap.....	19
Chapter Three.....		21
3.	Research Methodology	21
3.1.	Introduction.....	21
3.2.	Research Design.....	21
3.3.	Population and Sampling	23
3.3.1.	Population.....	23
3.3.2.	Sampling.....	23
3.4.	Sources of Data	23
3.4.1.	Primary Sources of Data Collection	24
3.4.2.	Secondary Sources of Data Collection	24
3.5.	Data analysis	24
3.5.1.	Validation	24
3.5.2.	Data analysis methods	24
3.6.	Ethical consideration.....	24
3.7.	Research Dissemination.....	25
Chapter Four		26
4.	Data Analysis and Presentation	26
4.1.	Introduction.....	26
4.2.	Quantitative Data Analysis	26
4.2.1.	General Information of respondents	26
4.2.2.	General assumption of the content of the questionnaire.....	27
4.2.3.	Impact of Working Environment.....	28
4.2.4.	Influence of Workplace Safety and Health.....	29
4.2.5.	Influence of Technology.....	31
4.2.6.	Influence of Human Resource Management	32
4.2.7.	Influence of Organization Culture.....	33
4.3.	Qualitative data analysis	35
4.4.	Conceptual model development.....	37
Chapter Five.....		44
5.	Conclusion and Recommendation	44
5.1	Conclusion	44
5.2	Recommendation	45

5.3 Future Research area.....	45
REFERENCE.....	46
APPENDICES 1.	54
APPENDICES 2	66
APPENDICES 3	69
APPENDICES 4	80

LIST OF TABLES

<i>Table 1. 1 2009 to 2012 E.C (NA metal yearly production report of fabrication plant from year 2008 to 2012)</i> _____	4
<i>Table 1. 2 major reasons for productivity decrease</i> _____	4
<i>Table 1. 3 Average yearly performance rate (appraisal performance evaluation)</i> _____	7
<i>Table 3. 1 Total number of Employees in NA Metal Industry and Engineering</i>	23
<i>Table 4. 1 Data analysis Presentation of general Information</i>	27
<i>Table 4. 2 Influence of Working Environment on productivity and performance of NA metal workers</i>	28
<i>Table 4. 3 Influence of workplace safety and health on productivity and performance of NA metal workers</i>	30
<i>Table 4. 4 Influence of technology on productivity and performance of NA metal workers</i>	31
<i>Table 4. 5 Influence of human resource management on productivity and performance of NA metal workers</i>	32
<i>Table 4. 6 Influence of organizational culture on productivity and performance of NA metal workers</i>	34
<i>Table 4. 7 Total result of strongly disagree and disagree in human resource management ranks above 50%</i>	38
<i>Table 4. 8 Total result of strongly disagree and disagree in organizational culture ranks above 50%</i>	40

LIST OF FIGURES

<i>Figure 1. 1. Pareto diagram of NA metal for problem analysis of minimization of production</i>	5
<i>Figure 2. 1 summery concept</i>	19
<i>Figure 3. 1 Research approach and methodologies framework</i>	22
<i>Figure 4. 1 Graphical presentation of questionnaire total result of strongly disagree and disagree for human resource management related question</i>	37
<i>Figure 4. 2 Graphical presentation of questionnaire total result of strongly disagree and disagree for organizational culture related question</i>	39
<i>Figure 4. 3 Conceptual model development for organizational productivity (Mohsin, 2010)</i>	41
<i>Figure 4. 4, Improvement model for employee productivity and performance</i>	42

List of Abbreviations

ANCOVA	Analysis of covariance
ANOVA	Analysis of variance Completely Knocked Down
CKD.	Complete knock down
CPU.	Central process unit
GTP.	Growth and Transformation Plan
E.C	Ethiopian colander
HR.	Human resource
HRM.	Human resource management
MIDI.	Metal industry development institute
NA	Nebyu Assefa (company owner name)
OSH	Occupational safety and health
SPSS.	Statistical Package for the Social Sciences
UNDP	United Nations Development Programmed

Chapter One

1. Introduction

1.1. Background of the study

Employees in any firm play a critical role in increasing productivity. Various studies have cast doubt on a widely held belief regarding the employee-organization relationship. Employees are the key constituent of every organization, the success or failure of most organization depends highly on the performance of its employees they can make or break a company's reputation and can adversely affect profitability of the companies. (**Raja et al., 2019; Thao and Hwang, 2012; and Amir& Amen, 2013**). Identifying factors that affect employee productivity helps to easily understand the level of any organization. If the capability of employees is increasing the performance of the organization is also increase. Based on these concepts it is very important to study factors that affect employee productivity.

Various scholars have investigated the factors that influence employee productivity. According to **Iskandar et al. (2014)**, factors such as workplace stress, which is caused when one is unable to adequately match available resources and job needs with personal talents. Employee motivation is linked to self-satisfaction, self-fulfillment and commitment that are expected to produce better quality of work and oblige to the organizations' policies, which will extensively materialize efficiencies, and competitive advantage and communication refers to the act, contact or double interacts among the individuals in delivering information, meanings and understanding. **Christabella (2014)** also discusses how a good working environment can assist to reduce absenteeism and hence improve employee performance, which leads to higher production. According to **Morris (2017)**, providing comparatively higher pay, an equitable payment system, and real opportunities for advancement, considerate and participative management, a reasonable level of social interaction, interesting and varied tasks, and a high degree of autonomy over work pace and methods will lead to high individual employee productivity. in industrial Engineering context one of the target employee are manufacturing industry employee. Manufacturing industry has a substantial importance and contribution to the development of any economy (**Emilia, 2016**). Developing countries are largely depend on manufacturing industry for growth and employment (**Bijoy, 2018**). Manufacturing industry in general divided into different sectors. according to According to **Arioch (2017)**, manufacturing

sectors divided into eight broad subsectors namely food and beverage products, textile and apparel products, leather and leather products, wood and pulp products, chemical and chemical products, rubber and plastic products, other non-metallic minerals products and metal and engineering products industries.

Manufacturing industries are the main concerned area for the GTP growth of economy in Ethiopia. Metal manufacturing industry is one of the areas, which need improvement for high economy performance. Studies have shown that Ethiopia metal manufacturing sectors has less percentage share of the economy. According to a UNDP report from 2017, Ethiopia's metal industry has a market share of 3.6 percent of the GTP's large investment projects. Even though the metal industry has a small proportion of the market, it has been rising in recent years.

Metal and Engineering sector in Ethiopia has been growing relatively good, following the consistent economic growth of the nation, though there is a rapid development in the sector, the products obtained are still low (**Habtamu & Gashaw, 2015**). Metal and metal products include manufacture of basic iron and metal, manufacture of basic precious and non-ferrous metals, casting of metals, manufacture of structural metal products, tanks, reservoirs and steam generators, manufacture of other fabricated metal products; metal working service activities (**Bijoy, 2018**).

Production and mounting of truck and trailer body manufacturing is a subcategory of the metal sector. According to the Metal Industry Development Institute's (MIDI) annual report for 2012E.C, the manufacturing process for truck and trailer bodies used modern technologies and a high manpower rate. All fundamental components and semi-assembled pieces are imported by the existing truck and trailer body manufacturer, who subsequently assemble and create the product's body and structural sections. This sector is served by several local businesses, some of which have been in operation for more than two decades. NA Metal Industry and Engineering is one of truck and trailer body production and mounting industries in Ethiopia.

NA stands for the beginning alphabet name of the company owner Mr. Nebyu Assefa. NA Metal Industry and Engineering is one of the private limited companies in Ethiopia which participate in the production and service of metal products that include design fabrication and installation of steel structure, fabrication of underground and overhead fuel tank, fabrication of fuel tankers for truck and trailer installation, fabrication of dry cargo body and trailers and participate in automotive sector for heavy duty Sino truck assembler in CKD form. The company is in Addis

Ababa in two sites the first site is at Lebu industry zone (Haile Garment) site called factory one, the main products produce in this factory are fabrication of trailer product and automotive assembling products. The total number of permanent employees in factory one is 93. The second factory is located at Hana Mariyam site, the main products are fuel tank and other tanker products cargo body products and other metal products are produced in this factory. Total numbers of permanent employee in factory two are 58 and most of the work in this factory is done by contract employee and totally in NA Metal Industry, there are 151 permanent employees. This study is focused on employees within this factory. Factory one is selected to conduct the study because of highest number of permanent employees in the factory.

1.2. Problem statement and justification

Due to poor employee performance, organizations may encounter issues such as poor innovation, low productivity, and failure to fulfill performance targets (**Iqbal, et al., 2015**). Many organizations are concerned with what they should do to accomplish high levels of performance through their human capital (**Hanaysha & Majid, 2018**). Human Capital Management is a key business initiative in the present globalized marketplace. Without insight into workforce and talent needs, organizational productivity suffers (**Anosa, 2021**). Organizations like banks are trying to improve human resource performance all around the globe to achieve maximum efficiency. Yet, due to limitation of job nature individual output resulting in lesser performance than expected (**Sheeba and Layal, 2017**). Organization has not focused on motivating their employee to ensure that they work to attain the organization goals and objectives (**Josephine and Lawrence, 2019**).

NA Metal Industry is one of manufacturing industry in Ethiopia, which has been facing a problem of low production capacity, inability to meet delivery and performance targets. Employee performance is one of the reasons that can be cited as a cause of those problems. Factory one has a production capacity of 4 trailer products per day, or 104 trailers per month or 26 days, and 1196 trailers per year or 299 days (design report of 2018). Table 1.1 shows the actual production rate of NA metal's trailer product during the last five years, based on NA metal's annual fabrication plant production report for the years 2008 to 2012. In the trailer fabrication segment, as shown in Table 1.1, there is an issue with fulfilling product targets.

Table 1. 1 2009 to 2012 E.C (NA metal yearly production report of fabrication plant from year 2008 to 2012)

No	year	Monthly trailer products per peace												Total product
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul.	Aug.	
1.	2008	65	50	62	45	67	55	22	56	50	44	25	68	609
2.	2009	62	90	45	45	52	3	0	41	9	16	37	30	430
3.	2010	5	16	9	12	5	16	0	17	20	6	0	2	108
4.	2011	6	11	6	0	2	4	6	13	12	4	6	9	79
5.	2012	4	2	17	12	16	17	23	20	21	20	19	23	194

The gap between the planned annual production capacity of 1196 trailer and the actual annual production rate of 284 trailer is 912 trailers. It is obvious from Table 1.1 that the annual amount of production rate decreases from year to year. Due to the company's low production rate, over 59 people from both factories 1 and 2 were laid off in 2011EC. When this firm reduces its workforce the country's unemployment rate will rise as well. As a result, a problem with an organization affects more than just that organization; it also has a significant impact on the country's progress. This raises the question of why the production output rate is so low. A variety of factors can be considered. Based on idle time recorded reports from July 2011 to December 2012 E.C. by NA metal quality assurance and system improvement department, Table 1.2 summarizes the key reasons for productivity decreases.

Table 1. 2 major reasons for productivity decrease

No.	Case of idle time and minimizing of productivity	6 month Recorded data result in hour	Impact on percentage	Cumulative percentage
1.	Marketing problem because of the current economic problem of the country, (no job order)	40	22	22
2.	Shortage of row material	34	19	41
3.	Decreasing of Employee productivity,	32	18	59
4.	Shortage of manpower because of high rate of employee turns over	29	16	75
5.	Fluctuation of light	23	13	88
6.	Availability of machineries	14	8	96
7.	other factors	7	4	100
Total		179	100	

The overall idle time over the previous six months is 179 hours, according to Table1.2. Because the company's working hours are 8 hours every day, dividing 179 by 8 hours indicates that the company does not produce anything for 22 days every six months. Pareto diagram is used to determine the most important reason for reducing productivity. Pareto chart as extremely useful

for analyzing what problems need attention first because the taller bars on the chart, which represent frequency, clearly illustrate which variables have the greatest cumulative effect on a given system (Archana, 2015). Pareto principal of 80/20 of 80/20 rule, which has been formulated with the following meaning. For many phenomena, 80% of the consequences originate from 20% of the causes (Jamal, 2017). Figure 1.1 is presents Pareto diagram of NA metal for problem analysis of minimization of production depending on data of Table 1.2 data

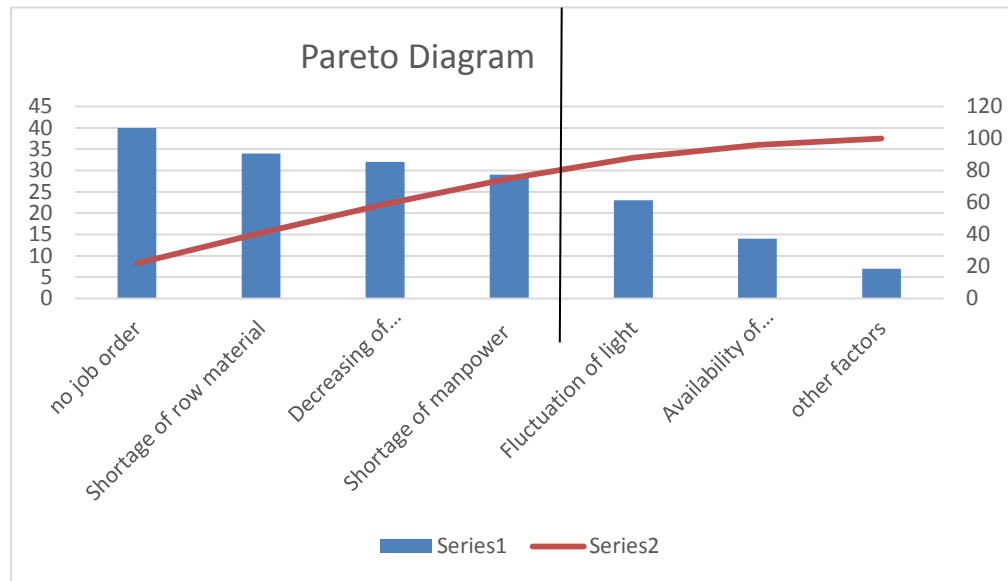


Figure 1. 1. Pareto diagram of NA metal for problem analysis of minimization of production

Using Pareto analysis, the main cause of declining productivity has identified. Marketing issues such as a lack of job orders, a scarcity of row material, a decrease in employee efficiency, and employee productivity have all been identified as important issues. This thesis project is aimed at reducing employee productivity. This problem was chosen because it is the third biggest percentage problem from the pareto diagram result, and the study's outcome will benefit both employees and employers. The first two factors are caused by both internal and external causes, such as exchange rate problems and political concerns. The shortage of work force is the fourth major problem, as evidenced by the problem of employee productivity and performance. Based on Pareto principle, if the first 20% of a problem can be solved, the rest of the problems can be handled as well.

Organizations use employee performance evaluation approach to measure employee productivity in the workplace. According to **Hasan & Amin (2011)**, organizations in general needs employee

performance evaluation to obtain an ongoing assessment process of working towards achieving its set of goals and thus targets can't be achieved only and unless it has a lesson from previous experience learnt, or previous gaps of planning procedures that was not accomplished its missions particularly in employee's performance. The research of **Adnan & Mohamed (2014)** also strengthens the idea, as of managers assess their employee performance on an annual or quarterly basis to help them for identifying suggested areas of enhancement. As of the researchers, most organization follow a standard list to evaluate their employee performances which are categorized in two 4 major points as Standard 1: job knowledge and skills, Standard 2: communication and interpersonal skills, Standard 3: job performance, Standard 4: professionalism.

To justify how much employee productivity affects the selected case company, the researcher looked at the organization's technique of evaluating method of employee. In NA Metal Industry & Engineering 14 major criteria are used to evaluate employee. Those criteria are attendance, time management, equipment handling, workplace management, material handling, innovation, daily rate of productivity, working quality, measuring assembling quality, communicates effectively and in a professional manner, respecting of supervisor and accepting of order, practices safety in the workplace and adheres to safety expectations, the behavior of the employee in the workplace, demonstrates responsibility and following the company rule and regulation. The category used to evaluate NA metal worker performance can be categorized in (**Adnan & Mohamed K, 2014**) categories as under standard 1: - creativity of new idea work, under Standard 2: - Communicates effectively and in a professional manner, under Standard 3: - Completes work within time limits (time management), Equipment handling, workplace management, Material handling, productivity, working quality, measuring assembling quality, Practices safety in the workplace and adheres to safety expectations and under Standard 4: - Attendance record of punctuality, respecting of the supervisor and accepting of order, demonstrates responsibility, Following the company rule and regulation.

Table 1.3 has present employee performance evaluation result depend on productivity performance since year 2008 E.C. The data revealed that employee performance has been declining from year to year.

Table 1. 3 Average yearly performance rate (appraisal performance evaluation)

Average performance result of workers evaluation									
No	years	Evaluation criteria's							Total by %
		Time management	Equipment handling	Workplace management	Material handling	Daily rate Productivity	Working quality	safety	
1.	2008	4.5	4.2	4	4.2	4.34	4.21	4.15	84.5
2.	2009	4.23	3.96	3.53	4.06	4.37	4.09	4.2	81.40
3.	2010	4.1	4.19	3.6	3.98	4.29	4.04	4.01	81.06
4.	2011	4.14	4.17	3.7	3.86	4.1	4.02	3.56	78.96
5.	2012	4.3	4.18	3.9	4	4.3	4.09	4.01	82.22

Table 1.3 shows that total performance in 2008 was 84.5, but in 2009 it was 81.4, indicating a 3.1 percent difference. The performance in 2011 was quite low, with a score of 78.96. In comparison to 2011, the assessment result in 2012 was good, but it still shows that there is a productivity disparity among employees.

Depend on the above statement it is justified that studying employee productivity factors is very important. The study has help in investigating factor on employee productivity and developed an improvement conceptual model for the investigated impairing factors.

The study attempts to answer the following researcher research questions.

1. What are the factor and challenges of employee productivity?
2. Which performance enhancement approach is appropriate for the case company?
3. How to develop a conceptual model to solve the problem?

1.3. Objective of the Study

1.3.1. General objective

The general objective of this study is to develop improvement conceptual model by investigating factors that affect employee's productivity.

1.3.2. Specific objective

- To identify impairing factors of employee productivity performance
- To identify appropriate enhancement approaches that can improve employees' productivity.
- To develop a conceptual model that an minimize challenges and improve both organizational and employee performance.

1.4. Significance of the study

This study will help the case company to identify employee performance impairing factors and use the outcome of the research to solve productivity problem that are related to employee. The studies mainly help the case company employee and employer. The study will also help other manufacturing industries. Rather than industries the research will help the reader, other researchers so that they can use the research as a reference.

1.5. Scope and Limitation of the study

1.5.1. Scope of the study

The focus of this research was on the factors that influence employee productivity. NA Metal Industry and Engineering was chosen as the case study. In Ethiopia, the facility lies near the Haile garment site in the Lebu industry zone.

1.5.2. Limitation of the study

The following obstacles were encountered during the study period. The first problem was the Covid-19 pandemic, which resulted in issues such as data gathering difficulties, inability to complete the study on time, and panic among the researchers. However, when the pandemic, start to minimize the researcher has collect relevant data and complete the study. Another problem was obtaining sufficient research on industrial sector employees. Most of the related research is carried out in the service industry. This problem was handled by adapting the results of the service sector to the manufacturing sector. There was also a problem with questionnaire responses, in that certain employees were not given proper information. This problem was likewise fixed by sending the questionnaire and communicating with the employee.

1.6. Organization of the paper

The first chapter described the study's background, including the problem statement, research aims, significance of the investigation, and the study's overall scope. The second chapter presents literature reviews. The methods and analysis are presented in the third chapter. The fourth chapter discusses data analysis, both quantitative and qualitative and proposed conceptual model. The conclusion and recommendations were offered in Chapter 5. Appendices/annexes were included in addition to the references in the chapters.

Chapter Two

2. Literature Review

2.1. Introduction

Section 2.2 has present information on employee productivity. Section 2.3 presented information on employee performance. Section 2.4 presented information on Productivity and performance Enhancement Approaches. Section 2.5 presented common factors that has impact on employee productivity and performance impairing and Enhancing approaches. Section 2.6 presented Conceptual Framework of the study, Section 2.7 gives conclusion based on research objective and last section 2.8 presented gaps in review of literatures.

2.2. Employee Productivity

Productivity is a common measure of how well a country, industry, or business unit is using its resources (or factors of production) (**Francis, 2010**). Productivity is also a measure of the combined efficiency or integrated efficiency of employees, machines and other devices and equipment's, nature of raw material inputs, performance of the management, efficiency of the whole production system (**Sreekumar, et al, 2018**). In other word Productivity is a ratio of output to input or a gauge of the relationship between production of goods and services and the factors of production used (labor, machinery, raw materials and so on) (**Vengudupathi and Rajenthira, 2016**). Since manpower is the main driver in any organization improving manpower is important to improve productivity of organization.

2.2.1. What is employee productivity?

A review of **Sheeba and Layal (2017)** stated that, the concept of employee production seemed relevant to that of employee performance as, at many instances, performance has been measured in terms of the physical goods produced by employees. Employee productivity is a measure of the ratio between how much person's knowledge and skills along with his effort, influence the results of his work, under all the intrinsic and external circumstances (**Črešnar & Nedelko, 2017**). Employee productivity is also the relation between the organization output product or service to input consumed resource and transformation process (**Mohammed and Faruq, 2017**).

Construction companies' employee or labor is a unit of work placed or produced per man-hour; it is a ratio of production output to what is required to produce it (**Kwizera, 2019**). In general researchers like (**M D Sreekumar, et al, 2018**) and (**Morris, 2017**) conclude employee productivity because of employee's satisfaction.

2.2.2. Why employee productivity?

One of the most important business factors for organizations is the productivity of their employees (**Esra, 2020**). According to **Kanani, (2017)**; benefits of employee's productivity are, Employees feel satisfaction towards their job, their job involvement increases, it will develop sense of commitment and loyalty, employees' salaries increase, organization get good profit and that will increase reputation of concerned organization in the market. Employers therefore need to find methods of identifying, encouraging, measuring, evaluating, improving, and rewarding employees' productivity at work (**James & Christopher, 2018**). Employee productivity can be expressed by using employee performance assessments. Performance is a willingness of someone or group of people to conduct activity and improve it based on their responsibility as the expected result. Performance indicates someone's level of success at work (**Ni Made and Yenny, 2019**). Performance can be separates to organizational performance and employees' performance. Employees' performance is known also as job performance (**Ayman, 2013**). Organizational performance is the degree to which the operation fulfills the performance objectives (primary measures) and meets the needs of the customers (secondary measures) (**Chiun Lo et al, 2016**). Organizational performance is operating as the action or behaviors that are significant to organizational goal and that can be measured in terms of every individual level of contribution (**Amirreza and Abdollah, 2018**). Performance is the result of work achieved by employees in quality and quantity in carrying out their duties in accordance with the responsibilities assigned to them (**Yanuaris et al, 2013**). Also there are seven criteria that can be used to measure the employee performance individually, namely: 1. Quality, a result of work carried out is near-perfect or meeting expected goals of that work, 2. Productivity, the produced number or the number of activity that can be completed, 3. Punctuality, that is being able to complete at a predetermined time and maximize time available for other activities, 4. Effectiveness, is the maximum utilization of available resources in organizations to increase profits and reduce losses, 5. Self-reliance, that is being able to carry out the work without

assistance in order to avoid adverse outcomes, 6. Work commitment, which is a commitment between employee and the organization, 7. The responsibility of employee to his or her organization (**Yanuaris et al, 2013**).

2.2.3. Employee Productivity Impairing Factors

Employee productivity can be positively or negatively affected by different factors. Understanding critical factors affecting productivity of both positive and negative can be used to prepare a strategy to reduce inefficiencies and to improve the effectiveness of project performance (**Soekiman et al., 2011**). Quality, technology, management, and human resource issues were the main factors influencing operational productivity amongst the surveyed small and medium sized manufacturing firms (**Francis, 2010**). Most of the factors influencing productivity are lack of skilled and experienced workforce, proper work, and quality management, in labor-intensive company's skill and experience of the labor is very significant to achieve high productivity (**Serdar, et al, 2012**). Factors like 1) Education effect labor productivity of small manufacturing industries because the higher the level of education of a person, the higher the productivity of his work, 2) Gender has a positive and significant effect on labor productivity in small-scale manufacturing industries. It means that there is a difference in productivity between male labor and female labor, 3) Male labor productivity is higher than female labor productivity. Labor basically cannot be distinguished based on gender. But generally, men will be more productive for jobs that rely on physical strength (**Rizal and Sholehuddin, 2019**). Provision of comparatively higher pay, an equitable payment system, and real opportunities for promotion, considerate and participative management, a reasonable degree of social interaction, interesting and varied tasks, and a high degree of autonomy over work pace and methods will lead to high employee productivity and individual employee productivity (**Morris, 2017**). In another term, **Le Tran & Chiou-Shu (2012)** defined Employees' performance impairing factor within an organization including the relationship between leadership and employee's performance, the impact of organizational culture on employees' performance, the relationship between working environment and employees' performance. The relationship between motivation and employees' performance and the relationship between training and employees' performance factors like Personnel or individuals, leadership, teams, system, contextual factors (situational), psychological factors and organization has major impact

on employee performance (Evawati, 2015). There are six factors (power/energy, training, motivation, maintenance/repairs, technology & safety) considered, affect the performance of manufacturing workers (Nwosu and Uzorh, 2013). Power/energy, safety, maintenance, training, equipment and technology are among the factors that affect the performance of manufacturing workers most in manufacturing Industries especially on developing countries (Uzorh,et al 2017). Commonly but not limited factors like training, leadership, safety, and motivation have raised as employee performance impairing factors but it depends on the organization behavior.

The concluding of the above concept is that employee productivity is a result of employee effort. Creating productivity employee can result a better competitive organization. Factor like quality, technology leadership, training and development and motivation has high impact on the productivity of employee.

2.3. Productivity Enhancement factors

Improvement can be in the form of elimination, correction (repair) of ineffective processing, simplifying the process, optimizing the system, reducing variation, maximizing throughput, reducing cost, improving quality or responsiveness, and reducing set-up time (Naveen, 2012) to increase production, companies use production management systems: Kaizen, one-piece flow, automation islands, Kanban, 5S, etc. Such approaches are rolled out in mass production organizations having to face high competition and demanding customer requirements (short lead times, product quality, flexible uses, etc.) (Jagdeep and Harwinder, 2016). Lean principle is a practical approach and low costs of improvement productivity especially for developing country like Ethiopia. The lean management system is based on the continuous loss reduction by means of methods that do not rely on investments, but on the improvement of the processes and the employees' performance (Daniel, 2014). Productivity improvement, its calculations are subjective matter in knowledge-based industries unless all possible influencing factors for effort estimation and actual effort tracking are systematically and statistically quantified. Six sigma tools provide overall insight about various quality tools that could be used promptly in quantification of effort estimation and actual effort tracking (Vengudupathi and Rajenthira, 2016). When a firm thought of improving its performance, it should remember six sigma that is one of the tools of continuous improvement. Six Sigma is a systematic, fact-based problem-solving methodology that provides businesses with the tools and skills to reduce variation within

their processes and create a corporate culture committed to eliminating waste and product variations (Archana, 2015).

2.3.1. Employee Productivity Enhancement factors

Employee productivity improvement has huge impact on enhancing company's performance (Made and Yenny, 2019). Increased employee performance represents an important objective for companies to maintain their business success to target increased employee performance, research should focus on employee performance appraisal and on the influence of organizational context factors such as organizational objectives, strategy, technology, organizational culture, HR procedures, employee motivation, etc. (Gabriela, et al, 2015). Employee competence is required in improving employee performance, but it should first improve employee job satisfaction and when employee is satisfied, it will further encourage better performance (Yanuaris, et al, 2013). Increased competence can be through education, skills, and work experience, and will provide a self-perception that employee is treated well and receive promotional opportunities according to his or her competence, which is in overall becomes a reflection of job satisfaction (Yanuaris, et al, 2013). Employee productivity can be enhanced by different approaches depending on the organization type and researchers study result. According to Myronenko (2012), factors that increase labors productivity are capital deepening which has a place when businesses invest in more or better equipment, and structures, machinery, all of which make it possible for their workers to produce more, increases in skill which employee who learns a skill needed for production may produce more output in less time. Employees increase their skills with help of additional education, on-the-job experience, training and so on. Implementation of new system is one of the most important methods of increasing productivity is successful organization operation or implementation of new management personnel. Scholar et al. (2014) stated that training is one way to enhance employee performance. Training and development in an organizational development improve productivity, effectiveness, and efficiency of government service by development and better utilization of talents, abilities, and potential of employees. The strategic positioning of training and development directly promotes organizational business goals and objectives, and thereby enhancing organizational performance. Performance improvement is included in proper organizational structure development Organizational structure is the formal arrangement of job within an organization. When manager create or change the structure, they are engaged in

organizational design, a process that involves decisions about six key elements: work specialization, departmentalization, chain of command, span of control, centralization and decentralization and formalization (**Happy, et.al, 2017**). Study conducted by **Kwizera (2019)**, review that quality of labor is very important to improve productivity. Three traditional variables for improved labor productivity have been 1. Basic education appropriate for an effective labor force, 2. Diet of the labor force, 3. Social overhead that makes labor available, such as transportation and sanitation. In developing countries, these three variables are very important however, in developed nation; the critical variable is maintaining and enhancing the skill of labor. **Morris (2017)** further noted that among the several aspects affecting knowledge workers' productivity are feedback, professionalism, and autonomy, job involvement, high-performance work systems, and the possibility for meaningful input into the decision-making process.

2.4. Five factors that have a high impact on employee productivity

Based on the above discussion, experience, different literatures and books factors like work environment, workplace safety, information technology, human resources management and organizational culture have major factors on impairing and enhancing employee productivity and performance. Note that those factors are not limited. The following section will discuss those major factors in detail.

2.4.1. Working Environment

Working environment is always an important variable of employee satisfaction (**Mostafizur et al., 2013**). It involves flexibility to balance life and work issues, meaningfulness of the job, organization's commitment to corporate social responsibility, overall corporate culture, relationship with co-workers and the work itself (**Morris, 2017**). According to (**NSW government published book**) working environment is said to be good when the employee can do their activities in best working condition which is free from physical work environment factors like Lighting, air conditioning, noise, workplace safety, workshop design, technology and nonphysical factors like conflict, communication, moral and other factors.

Working environment has a direct impact on the employees who carry out the production process, inadequate working environment could reduce employee performance (**Evawati, 2015**). Work environment variables that consist of employee service, working conditions, and employee relationship have a significant influence towards employee morale (**Purnamie, et al., 2017**).

Factors like supervisor support, good relation with coworkers, training and development, attractive and fast incentives and recognition plans and adequate workload are helpful in developing a working environment that has positive impact on employees' level of productivity in the organization (**Abdul and M.Tafique, 2015**). Also other factor like work place design in working environment has highest percentage result on employees performance, where it affects employees satisfaction, motivation and retention, and affects the efficient and smooth of workflow, team working , collaboration , sharing information, feedback and response time, socializing and relationships between employees, it affects employees privacy , distraction , absenteeism and their commitment of work times, this refers that the performance level of employees will be improved by conducting better work place design (**Abeer, 2010**). Friendly working environment provides additional satisfaction toward work; conversely, irrelative working environment creates problem to do the work simply (**Mostafizur, et al., 2013**). Mohammed and Faruq (2017) also have same view on the idea of how workplace environment has an impact on employee productivity and performance.

2.4.2. Workplace safety and health

Safety should be considered an important operational priority in addition to cost, quality, flexibility, delivery, and innovation. Furthermore, safety is not a priority of a few numbers of big companies, but it is a demand of governments and majority of citizens as a basic human right. Organizational safety support covering all health and safety policies could provide antidotes to the problem of (work alienation) powerlessness experienced by employees (**Kaynak, et al., 2016**). The most common factors affecting the safety and health performance of the laborers in construction safety awareness of top management, a clear company health and safety policy; project cost; project duration; weather condition; reward and punishment system; safety and health training and orientation; employee experience; investment on personal protective equipment (PPE); inadequate enforcement rules and regulations, recording and reporting of safety issues(safety audit) and the age of workers (**Assegid, 2018**).

2.4.3. Information technology

Investment in technology has vital importance in organizations. Organization should make such arrangements for their employees which make them easy to perform their job; it will result in better quality service and increase in productivity (**Jawad et.al, 2014**). Information and

communication technology (ICT) have not only changed the work styles of the organizations but also has considerably increased the efficiency and employees' performance (Ayman, 2013). The use of information technology will enhance individuals' creativity and innovation, and as a result improving productivity (Mohammad, et al., 2014).

2.4.4. Human resource management (HRM)

Human resource of the organization is the source of achieving competitive advantage because of its competency to convert the other resources (money, machine, methods & material) into output (product/service) (Momena, et al., 2013). According to Mostafizur, et al., (2013), HRM practices had a significant impact on employee attitudes such as job satisfaction, organizational commitment, and organizational fairness. According to Vinay and Gyanesh, (2018); the perceived effectiveness of HRM practices, such as performance appraisal, training & development, career advancement & planning, employee welfare & compensation, and work-life balance policies, has a significant impact on the overall performance of healthcare employees. Also, Momena, et al., (2013) reviewed employee 's performance is influenced by HRM practices (training & development, performance appraisal, career development, compensation & benefits, work life balance and leadership practices).

Training and Development

Training and development refer to educational activities within a company created to enhance the knowledge and skills of employees while providing information and instruction on how to better perform specific tasks. Organizations work on employee skills and knowledge through training, feedback, and development to ensure achievement of set targets (Morris, 2017). Training programmes offered helped employee to improve job performance, become more productive, learn new and efficient ways of performing various tasks, improved time management skills, understand their responsibilities, and contribute to the achievement of the overall objectives of the company, as well as improve relationship with other team members (James and Sally, 2015).

Leadership style

Leadership style is the manner and approach of manager as seen by the employees, it includes the total pattern of clear and hidden actions performed by their leader who providing direction,

implementing plans, and motivating people. Leadership style has major factor on employee productivity and performance. Leadership style depends on top management performance. **(Lo et al., 2016)**; stated that the most powerful decision-making role in the company is held by top management. Furthermore, top management plays a key role in creating conditions in the work environments that are favorable for an integration of learning and work. (Shouvik and Mohammed, 2018) has conclude that Teamwork, leadership and structure, team trust and performance appraisal and rewards have a significant and positive impact on the employee performance of the case company. Not all study result show leadership style has impact on employee productivity and performance. The result of study conducted by Mohamed, (2016) concludes that the results of the study indicated that the independent variables (democratic, laissez-faire, autocratic, transformational, charismatic, transactional, bureaucratic) leadership styles were found to be weak on dependent variable (employees' performance) of the case company.

Job Satisfaction

Job satisfaction is a feeling that workers have in their work perspective it is one of the factors that affect employee productivity positively or negatively, if there is a satisfaction feeling on the job there will be negative impact on the employee performance and productivity if there is satisfaction on the job there will be a positive impact on employee performance. According to **Aziri (2011)** Job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees, Job satisfaction is under the influence of a series of factors such as :The nature of work, Salary, Advancement opportunities, Management, Work groups and Work conditions, **(M. D. Pushpakumari,2008)** has also conclude that there is a significant impact of job satisfaction on performance of employees in private sector organizations, Higher level employees and Employees who are in highly competitive industries are more satisfiers than the lower level employees and employees who are in less competitive in private sector organizations. The researcher had also concluded that satisfied workers tend to be less absenteeism and less turnover rate than less satisfied workers of employees in private sector organizations. Financial benefits play an important role to satisfy, retain and attract employees in private.

2.4.5. Organization culture

Organizational culture is wide range of social phenomena that help to define an organization's character in addition to norms, customary dress, language, behavior, beliefs, value, assumption, symbols of status with authority, myths, ceremony along with rituals, and form of respect and subversion (**Amirreza and Abdollah, 2018**). Organizational culture and employee performance have a significant relationship. The norms and values of organization, based upon different cultures influence on work force, has increased the output of the work force. In an organization, strong culture enables effective and efficient management of work force (**Mohammed, 2017**). If employee's perception of culture in an organization is accordance with the wishes of employee, then the employee will be satisfied with his work. Conversely, if employee's perception of culture in an organization is not support to organization system, then employees are not satisfied with his work (**Yayu, 2017**).

Based on the studied literatures, five common factors have been discovered. The first factor is work environment, which entails creating a pleasant atmosphere in which to work. It is safe to assume that employees who work in a pleasant working environment are more productive than those who work in a less pleasant environment. The second aspect is workplace safety and health; a manufacturing company, such as the metal industry, runs the danger of having an accident. Organizations that provide workplace safety have been able to reduce the likelihood of workplace accidents while also gaining the trust of their employees. Employee performance improves when they work in an accident-free workplace. The third factor is technology, which has become increasingly prevalent in our daily lives. Employee work influence is reduced in a company that adopts a technology-driven production system. In certain cases, technology has also resulted in laziness. Human resource management is the fourth aspect, and this section is more comprehensive than the others. Human resource management includes factors such as training and development, leadership, job satisfaction and motivation, administration, and everything else. The final aspect is organizational culture, which entails developing a flexible work environment that allows employees to feel like they are running their own business. The summery of the above concept has indicated in Figure 2.1.

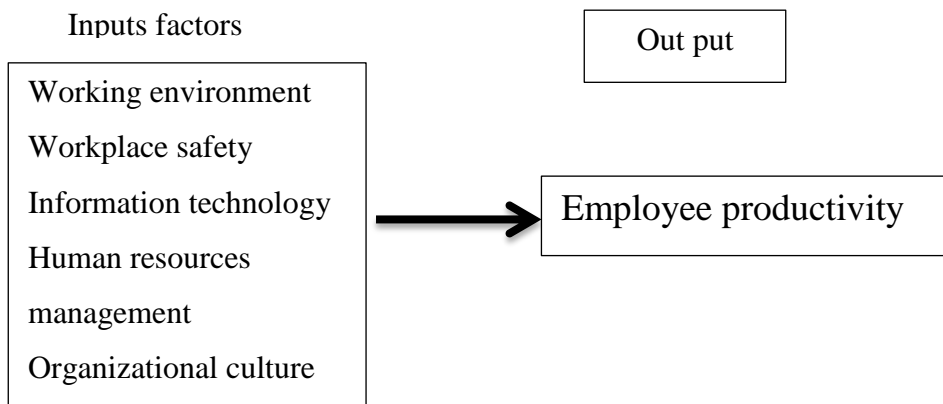


Figure 2. 1 summery concept

2.5. Chapter summary based on the research objectives.

As a result of the above literature review points, the researcher focused on five important factors to be mentioned in questionnaires to answer the study's basic research topic.

Question 1: - Does Work Environment have impact on employee performance and productivity improvement of case company?

Question 2: - Does workplace safety have impact on employee performance and productivity improvement of case company?

Question 3: - Does information technology have impact on employee performance and productivity improvement of case company?

Question 4: - Does Human resource management have impact on employee performance and productivity improvement of case company?

Question 5: - Does organizational culture have impact on employee performance and productivity improvement?

2.6. Literatures review Gap

Previously a related research has been conducted in employee performance and productivity impairing factors and enhancement approaches. By identifying literatures gap the researcher use the result to improve the study. The finding results of **Nwosu et al., (2013)**; state That a lot of factors affect the performance of a production worker these factors include but not limited (i) Power/Energy infrastructure (ii) Trainings (iii) Motivations (iv) machine's reliability, (v) Technology and Technological changes and (vi) Workplace safety (vii) Standard Equipment.

However, other factors, such as, leadership effectiveness, time management, process change and others, also influence the production worker performance in the medium and large-scale manufacturing industry. The research identified the factor, but it is not clear that effect of the factor is positive or negative also after the factors identified the question of what kind of measurement should be taken is not answered. The finding results of **Ovidiu, (2013)** stated that a motivated and qualified workforce is essential for any company that wants to increase productivity and customer satisfaction. In this context, motivation means the willingness of an individual to do efforts and act towards organizational goals. The challenge for any manager is to find the means to create and sustain employee motivation. On one hand, managers should focus on reducing job dissatisfaction (working conditions, salary, supervision, relationship with colleagues), while on the other hand should use motivating factors such as achievement, recognition, responsibility, and the work itself. Compared to **Nwosu et al. (2013)**, the research conducted by **Ovidiu (2013)** has clearly stated the output of the results. The study has also recommendation the improvement area, but it is not clearly stated how to implement those improvement factors.

The result of study conducted by **Purbasari and Septian (2017)** show the effect of leadership style, compensation, and work environment on employee performance of production department in a manufacturing company in Indonesia. Only compensation and work environment have an influence on the employee performance of case company. To maintain employee's performance paying more attention to the compensation and work environment that the employees get, to achieve business objectives and then raise competitive advantages manufacturing industry.

The researcher has concluded that focusing more on compensation and working conditions will fix the problem. This raises the issue of data justification, demonstrating that the company has not been paying attention and what kind of attention is required. According to the findings of the study conducted by **Iskandar et al. (2014)**, job stress, motivation, and communication account for 59.3 percent of employee performance at the case company, while the remaining 31.7 percent is explained by other factors that influence employee performance simultaneously. Only the problem is discovered in this study, and the next step is not clearly specified. According to the researchers' perspective, research must address how to fix the stated problem and what steps should be taken to address it. This study has improved by answering those questions by establishing an improvement strategy model based on the researcher's gap output.

Chapter Three

3. Research Methodology

3.1. Introduction

According to **Jilcha (2019)**, research methodology is the path through which researchers need to conduct their research. The aim of this chapter is to present the tools used in the study and the statistical analysis assumed to provide answers to the research questions and the general objectives of the research. This chapter considers of the research methodology and describes the selection of the sample and the design of the survey instruments used to collect the data from the employee of NA Metal Industry and Engineering. The method used for this research is survey research method. Survey research is one of the most important areas of measurement in applied social research. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents (**Farzana and Khalid, 2010**).

3.2. Research Design

The research design is used to frame the study and demonstrate how all the primary components of the study work together to answer the core research questions (**Machui, 2018**). This thesis uses a descriptive case study method with a questionnaire to collect data. This strategy was chosen because it aids in the identification and comprehension of employees in real-world situations. The descriptive research technique is a fundamental research strategy that investigates the situation as it already exists. In descriptive research method, correlational, developmental design, observational studies, and survey research are used (**Carrie, 2007**). Researchers stated a case study as a research method facilitates a deep investigation of a real-life contemporary phenomenon in its natural context. The case study approach has been widely used in the studies of organizations and has generated a huge amount of high-quality information which has contributed significantly to deepening the understanding of organizational life (**Yasir et.al, 2019**).

Depending on case study descriptive analysis the researchers have followed the following steps. Step 1 problem formulation using company data. Step 2 reviewing relative literature The Methodology used for Literature Review is searching, reading and review of different articles & journal, book, research papers and magazine that are related to the research title. Step 3 hypothesis development, Step 4 methodology which is quantitative and qualitative data

collection using questionnaire and data analysis using SPSS software and Microsoft Excel software. Step 5 is finding the result in this step if the result output is all positive the hypothesis must be study back but if there is at list one negative result go to Step 6 which is improvement Strategy model development and final step is conclusion and recommendation Figure 3.1.has presented the figurative presentation of the step followed.

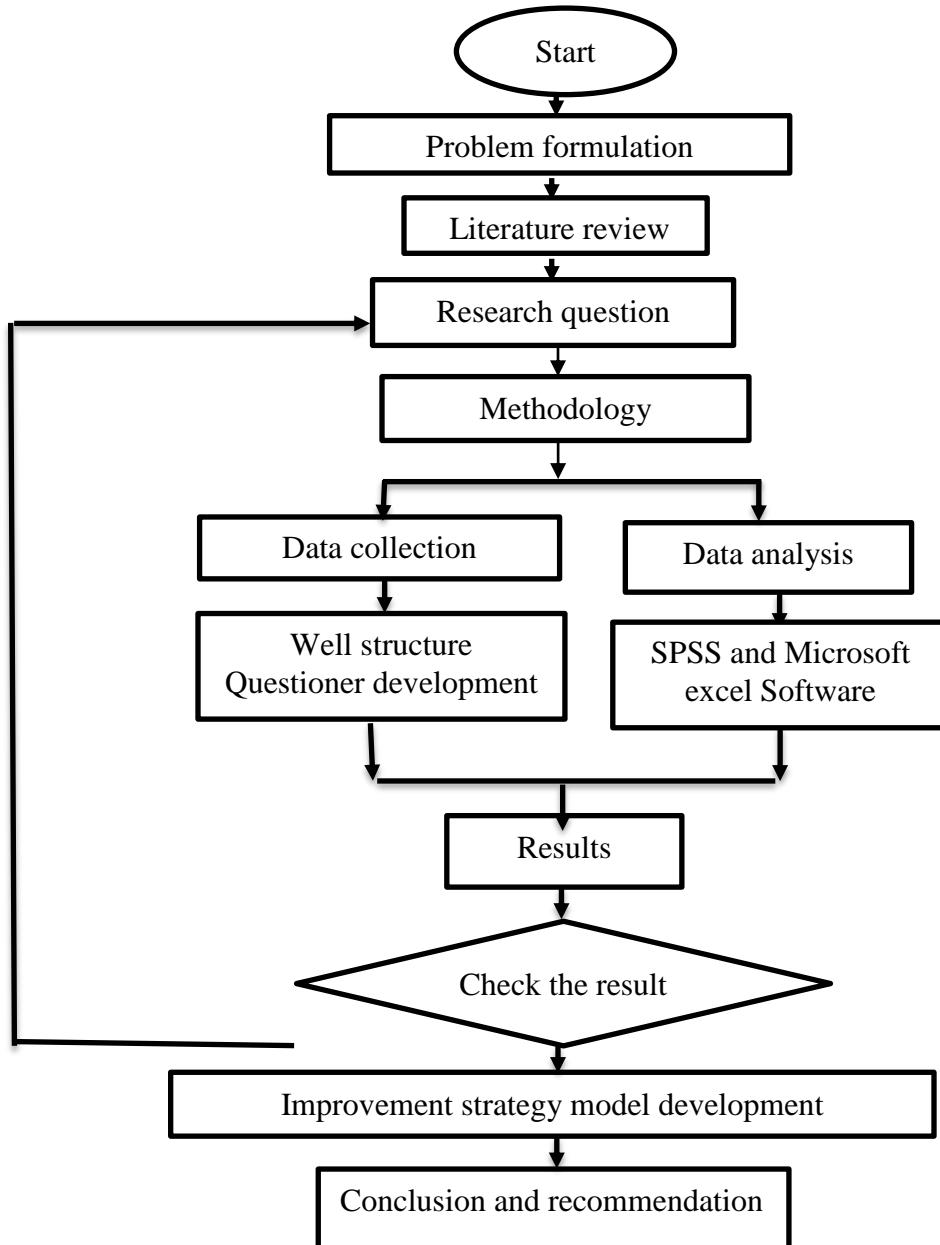


Figure 3. 1 Research approach and methodologies framework

3.3. Population and Sampling

3.3.1. Population

Population is a total number of people living in a certain place and in a certain time (Anna et al., 2017). These mean population in organization is number of employees who are working in the organization. The population of NA Metal Industry and Engineering is the respondents for this study. The population is drawn from all employees working in factory one of NA metal (Ethiopia) which include top-level managers, middle level managers, supervisors, operators, and other supporting staff members.

Table 3. 1 Total number of Employees in NA Metal Industry and Engineering

No	Employee type	Total Number		Total
		Male	Female	
1.	Number of top-level managements	7	0	7
2.	Number of middle level management	7	0	7
3.	Number of Forman and supervisor	8	0	8
4.	operator and other supporting staffs	64	7	71
5.	Total number of permanent employees	86	7	93

The methodology used for data collection is primary data collection method by using well-structured questionnaire and secondary data collection method referring company data, reviewing different research articles, journals and different books for data analysis quantitative and qualitative data analysis method will be used.

3.3.2. Sampling

Sampling is getting the representative subset of a set of population (Singh & Masuku 2014). Considering it is not completely reasonable to obtain all the data from this population, for this reason it is very important to decide the sample size (Amirreza and Abdollah, 2018). The sampling frame for this study is employee of NA metal in number one site. Since the number of employees is 93 all employee has selected in order to increase the confidence level of the research.

3.4. Sources of Data

There are two types of data primary and secondary data. This study obtained data from both primary and secondary sources. Primary data is obtained from employees and management of

NA Metal Industry and Engineering using a well-organized questionnaire. Secondary data was also obtained from different article, book and other documents including Company documents.

3.4.1. Primary Sources of Data Collection

Primary data are collected using questionnaire.

Questionnaires: - The questionnaires contained using open-ended and closed-ended questions, where the respondents were required to answer all the questions. With the open-ended questions, the respondent was able to provide answers to the questions and further highlight on the area that had not been highlighted in the questionnaire.

3.4.2. Secondary Sources of Data Collection

Secondary data for this research has collected from company recorded documents, different academic literature, research papers, journals, book, and other documents.

3.5. Data analysis

3.5.1. Validation

By validity, it is meant that the instrument should contain items related to the study variables, and that it measures them accurately and clearly (**Ayman, 2013**). To valid the data the questionnaire had been sent to my Adviser and co- Adviser also the researcher has sent the questionnaire to one of NA Metal and Engineering manager (see Appendix 2) and their notes were taken into consideration to improve some of the idea in the questionnaire.

3.5.2. Data analysis methods

Descriptive analysis methods are the most used data analysis techniques, yet various other techniques are also frequently used by various researchers. The examples of such analysis techniques are t-test, ANOVA, ANCOVA, correlation, regression, factor analysis, and nonparametric test (**Ahmad and Ika, 2018**). To present the findings of this study's data gathering, descriptive data analysis approaches were used.

3.6. Ethical consideration

The researcher has assured that the purpose of the study is only for educational research. Name and address of the questionnaire respondent has not displayed on the data collection and analysis process. Also, for the future if the study published the confidential of the company is always protected and the name will not be appeared in the publication paper without the permission of company.

3.7. Research Dissemination

To address the research study result for the company a copy of this has send to production managers of the company. For the futures by publishing the study, it will be available for all readers.

Chapter Four

4. Data Analysis and Presentation

4.1. Introduction

This chapter presents quantitative and qualitative data gathered via questionnaires. This information aids in the analysis of factors that affect NA Metal and Engineering employees, as well as the correlation of the findings to the research's major hypotheses. The analysis' findings aid in the construction of an improvement approach model.

4.2. Quantitative Data Analysis

The questionnaires are based on five major factors that influence employee productivity. The key issues include the impact of the work environment, the impact of workplace safety and health, the impact of technology, the impact of human resource management, and the impact of organizational culture, as well as a variety of related questions. The questionnaire has reached out to all 93 employees at the NA metal site number one. Only 76 out of 93 employees have responded to the questionnaire. The researcher used the responses to the question to figure out which factor has the most negative consequences for the case company's employees.

4.2.1. General Information of respondents

Table 4.1 shows the general information of the questionnaire response. The total number of employees who have returned the questionnaires is 76, according to the data. There are 67 (88.2%) male participants and 9 (11.8%) female participants among them. The age variance shows that 47 (61.8 percent) of respondents are between the ages of 18 and 30, 13 (17.1 percent) are between the ages of 31 and 40, 8 (10.5 percent) are between the ages of 41 and 50, and 8 (10.5 percent) are above the age of 51. The working department results show that engineering and production departments account for 55% of responses, with the rest coming from other departments. The greatest percentage of workers with 4 to 6 years of experience is 51.3 percent.

Table 4. 1 Data analysis Presentation of general Information

Characteristic	Group	Frequency (N-76)	Percentage (%)
Gender	Male	67	88.2
	Female	9	11.8
Age	18 – 30	47	61.8
	31 – 40	13	17.1
	41 – 50	8	10.5
	Above 51	8	10.5
Working Departments	Engineering and Production	42	55.3
	Finance administration	6	7.9
	Human Resource and personnel	6	7.9
	Property, purchasing and store	6	7.9
	Administrative and supporting	9	11.8
	Another department	7	9.2
Work Experience	1. Below 1 year	2	2.6
	2. 1– 3 years	20	25.6
	3. 4 – 6 years	40	51.3
	4. 7 – 10 years	8	10.3
	5. Above 10 years	6	7.7
Education Level	Below secondary level	1	1.3
	Secondary school level	12	15.8
	Diploma	46	60.5
	University or collage degree	17	22.4

60.5 percent of NA metal employees have a college or vocational diploma, which is the highest number. This demonstrates that the majority of respondents are able to comprehend the topic and provide appropriate and relevant responses.

4.2.2. General assumption of the content of the questionnaire

The association between a good answer and the starting of the question is inversely related in questionnaire responses. Which means that if the respondent says strongly agree or agree to the question, it means the initial concept of the question has no or little effect on the dependent variables. If the total average percentage of positive answer is greater than 50% the initial concept of the question is taken as it has less or no impact on the dependent variables. Which only need some improvement. In addition, if the respondent says, "strongly disagree" or "disagree," it means the hypothesis point has a strong relationship with the dependent variable. The second point is the analyses' general assumption, which is

1. If the average percentage of negative answer is greater than 50% the initial concept of the question is taken as it has higher impact on the dependent variable. It needs high concern, so improvement model needs to be developed.
2. If the total average percentage of positive and negative answer take equal 50 % or similar answer the assumption is taken as both it may and may not has impact on dependent variable. Future study needs to be conducted so this part will be passed only by recommendation.

Based on this general concept Part two questionnaire analysis has discussed in the following section.

4.2.3. Impact of Working Environment

The main concept on the first question was to identify if work Environment has impact on the employee performance. The questionnaire has discussed 7 work environment related question which presented in Table 4.2. The analysis result show that the average answer for impact of work environment questions is 11.84% strongly disagree, 31.97% disagree, 40.59 Agree and 15.25 strongly agree. Total percentage of positive answer which is the addition of agree and strongly agree is 55.87% and total percentage of negative answer which is the addition of strongly disagree and disagree is 43.82%. Depending on the initial assumption point the result of the analysis show that work environment has less impairing impact on employee productivity and performance of case company.

Table 4. 2 Influence of Working Environment on productivity and performance of NA metal workers

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
1.	The working conditions is facilitated with all material	7(9.2%)	18(23.7%)	41(53.9%)	10(13.2%)	
2.	The working environment provide the natural lighting and fresh air to reach all the interior spaces	9(11.8%)	31(40.8%)	11(14.5%)	25(32.9%)	
3.	The workspace is provided with efficient lighting so you can work easily without pressure on your eyes.	13(17.1%)	12(15.8%)	34(44.7%)	16(21.1%)	1(1.3%)
4.	The overall temperature of your workplace is comfortable, and you	14(18.4%)	24(31.6)	32(42.1%)	6(7.9%)	

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
	can control temperature and airflow in your working place					
5.	Your workspace is free from noise distractions and there is a reasonable noise level at your workspace that won't affect your productivity and morale	5(6.6%)	39(51.3%)	28(36.8%)	4(5.3%)	
6.	The working environment invite the interaction, communication, and teamwork between employees	7(9.2%)	16(21.1%)	36(47.4%)	16(21.1%)	1(1.3%)
7.	Due to the overall workplace environment and design, you can complete your daily tasks easily and efficiently	8(10.5%)	30(39.5%)	34(44.7%)	4(5.3%)	

From Table 4.2, issues like providing of the natural lighting, providing fresh air to reach all the interior spaces of the working environment and noise distractions, which is providing of reasonable noise level at workspace has highest strongly disagree and disagree result. Even though work environment has less impact on the impairing factor of employee performance and productivity those issues should be addressed in during improvement.

4.2.4. Influence of Workplace Safety and Health

The main concept in the second question was focused on impact of workplace safety. The previous research has shown the positive and negative impact of workplace safety and health on productivity improvement. For this research 13 safety and health related question has asked. Table 4.3 discussed the result of the questionnaire. Based on the analysis result presented average percentage shows that 7.49% of employee strongly disagree, 32.28% disagree, 43.31% Agree and 16.09% strongly agree. This mean the positive answer for this analysis or total of strongly agree and agree is 59.1% and total percentage of negative answer or total of strongly disagree and disagree is 40.18% and the rest of the percentage applied for missed. Depending on the general assumption positive answer for this question is above 50% and this indicated that workplace safety and health has less impairing impact on employee productivity and performance of NA metal employee.

Table 4. 3 Influence of workplace safety and health on productivity and performance of NA metal workers

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
1.	The workplace is free from accident or near miss	7 (9.2%)	46 (60.4%)	21 (27.6%)	2 (2.6%)	
2.	There is an emergency exist in the workplaces	5 (6.6%)	30 (39.5%)	27 (35.5%)	14 (18.4%)	
3.	Workplace evaluation is conducted properly	6 (7.9%)	36 (47.4%)	28 (36.8%)	5 (6.6%)	1(1.3%)
4.	The organization provide personal protective equipment properly	4 (5.3%)	32 (42.1%)	27 (35.5%)	11 (14.5%)	2(2.6)
5.	There is assembling area in case of accident	8 (10.5%)	20 (26.3%)	35 (46.1%)	12 (15.8%)	1(1.3%)
6.	First Aid kits are available in the workplace	2 (2.6%)	2 (2.6%)	49 (64.5%)	20 (26.3%)	3(3.9)
7.	First Aid kits are fully equipped	6 (7.9%)	29 (38.2%)	34 (44.7%)	7 (9.2%)	
8.	There is a trained first aid provider in the company	20 (26.3%)	6 (7.9%)	38 (50%)	12 (15.8%)	
9.	fire extinguisher is placed in the workplace	1 (1.3%)	3 (2.6%)	41 (53.9%)	32 (42.1%)	
10.	The expired date of the fire extinguisher is properly checked	1 (1.3%)	7 (9.2%)	30 (39.5%)	38 (50%)	
11.	Emergency drill is conducted properly	4 (5.3%)	41 (53.9%)	28 (36.8%)	2 (2.6%)	
12.	Different safety internal and external training are provided for employee	4 (5.3%)	26 (34.2%)	44 (57.9%)	2 (2.6%)	
13.	Safety related issues are solved immediately	6 (7.9%)	42 (55.3%)	26 (34.2%)	2 (2.6%)	

From Table 4.3, it is clearly show that some factors rank more that 50 % in total addition of disagree and strongly disagree. Factor like providing a workplace that is free from accident or near miss which ranks 69.6%, conducting workplace place evaluation properly which rank 55.3%, Conducting Emergency drill properly which ranks 59.2% and solving Safety related issues immediately which rank 63.2%. Yet the total result implies the total percentage of positive results are higher than those of negative results. In this case, also it is important to work with organization safety and health department to address those issues and improve the system.

4.2.5. Influence of Technology

The main concept on the third question was concerned on identifying information technology impact. Now a day technology has huge impact on the development of the organization. The aim of this questionnaire is to identify if technology has impact on employee the case company. Table 4.4 has discussed 6 information technology related question. The average result has come out that 8.32 % strongly disagree, 41.25 % disagree, 44.75% agree and 5.03% strongly agree and 0.65 missed. The total positive answer is 49.78 and the total negative point is 49.57% this means according to the intimal assumption the result has equal impact that mean technology may or may not has impact on impairing of employee performance.

Table 4. 4 Influence of technology on productivity and performance of NA metal workers

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
1.	Highly developed technology is used for production process	2(2.6%)	30(39.5)	39(51.3%)	5(6.6%)	
2.	Application of high technology has an impact on employee motivation	2(2.6%)	55(72.4%)	17(22.4%)	2(2.6%)	
3.	old technology has Impact on employee performance	8(10.5)	16(21.1%)	49(64.5%)	2(2.6%)	1(1.3%)
4.	Skill of employees has negative impact on using technology	2(2.6%)	45(59.2%)	23(30.3%)	4(5.3%)	2(2.6%)
5.	Application of technology has minimized the work Burdon of the employee	8(10.5%)	18(23.7%)	42(55.3%)	8(10.5%)	
6.	Application of technology has introduced for employee properly	16(21.1%)	24(31.6%)	34(44.7%)	2(2.6%)	

According to the general assumption impact of technology need future study to see the actual impact. However, from Table 4.4, the question of Application of high technology has an impact on employee motivation has total of 75% disagree and strongly disagree. From employee feedback on open-ended question the company is not experiencing application of high technology.

4.2.6. Influence of Human Resource Management

The main concept of fourth question was to find out if Human resource management has impact on employee productivity. Table 4.5 has disused 20 question that is related to human resource management. This questionnaire has concluded different sections mostly concerned human resource department. The content of the question ty to cover issues like leadership, training and developments, employee motivation and others and the average outcome of the result show 11.92% strongly disagree, 52.52% disagree, 30.41% agree, 4.3%), strongly agree and 0.91 % has missed the questions. According to the initial assumption total positive answer for this section is 34.71% and total negative answer is 64.44%. This indicates human resource management has high impairing impact on the employee productivity and performance of NA metal.

Table 4. 5 Influence of human resource management on productivity and performance of NA metal workers

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
1.	There was proper induction about the job for the employee when they hire.	15 (19.7%)	34 (44.7%)	25 (32.9%)	2(2.6%)	
2.	Employee can express their opinions and communicate their complaints freely without fear	27 (35.5)	29 (38.2%)	17 (22.3%)	2(2.6%)	1(1.3%)
3.	Employee performances are evaluated, and constant evaluation feedback will be given by their leaders	8 (10.5%)	40 (52.6%)	26 (34.2%)	2(2.6%)	
4.	The organization offer constant internal and external training to employee	4 (5.3%)	58 (76.3%)	8 (10.5%)	6(7.9%)	
5.	The organization has well documented training and development policy to address performance gap	8 (10.5%)	54 (71.1%)	12 (15.8%)	2(2.6%)	
6.	Training are schedule to address performance gap identified during performance evaluation	3 (3.9%)	68 (89.5%)	3 (3.9%)	2(2.6%)	
7.	Training need of employee are prioritized	16 (21.1%)	43 (56.6%)	12 (15.8%)	2(2.6%)	3(3.9%)
8.	The organization sponsor or allow its worker to go for further training that will help to increase work performance	25 (32.9%)	33 (43.4%)	16 (21.1%)	2(2.6%)	
9.	leaders inspire their workers to develop their skills	4 (5.3%)	40 (52.6%)	27 (35.5%)	5(6.6%)	

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
10.	To inspire the employee Leader, show the actual work by participating with employee	4 (5.3%)	38 (50%)	30 (39.47%)	4(5.3%)	
11.	leaders encourage teamwork and appreciate their efforts	2(2.6%)	37 (48.7%)	33(43.42 %)	4(5.3%)	
12.	leaders believe in achieving results through teams	2(2.3%)	32 (42.1%)	37 (48.68%)	4(5.3)	1(1.3%)
13.	leaders involve employees in key decision making	4(5.3%)	35 (46.1%)	25 (32.9%)	12 (15.8%)	
14.	There is Adequate Workload and work distribution	6(7.9%)	38 (50%)	29 (38.2%)	2(2.6%)	1(1.3%)
15.	Employee are satisfied by leadership style of the company	12 (15.8%)	33 (43.42%)	25 (33%)	4(5.3%)	2(2.6%)
16.	Employee are satisfied by their work	4(5.3%)	40 (52.6%)	29 (38.2%)	2(2.6%)	1(1.3%)
17.	Employee are satisfied by their payment	3(3.9%)	53 (69.7%)	16 (21.1%)	2(2.6%)	2(2.6%)
18.	The existing salary is increasing from time to time	4(5.3%)	35 (46.05%)	34 (44.8%)	2(2.6%)	1(1.3%)
19.	There is a system to rewarding and promote employee depend on leader's evaluation result	12 (15.8%)	28 (36.8%)	33 (43.4%)	2(2.6%)	1(1.3%)
20.	unexpected bonus for a job is provided to motivate the employee to be more productive	18 (23.7%)	30 (39.5%)	25 (33.2%)	2(2.6%)	1(1.3%)

Since human resource department is more related to employee handling different questions, which are related to job satisfaction, training and development, leadership and other factors has raised. From table 4.5 most of employee related question has resulted with strongly disagree or disagree. But there are factors like leaders believe in achieving results through teams has high positive answer that indicated the company has good experience in that area must keep continues improvements.

4.2.7. Influence of Organization Culture

The main concept of fifth question was to identify if organizational culture has an impact on employee productivity. 9 organizational related question has asked in this section. Table 4.6 has presented the questionnaire result and the average result on organizational culture impact shows 12.28% Strongly disagree, 47.68% disagree, 34.08% agree, 4.8% strongly agree and 1.44% missed. Depend on general assumption the positive result for this section is 38.88 % and

negative section is 59.96%. Since the negative result is the highest result organizational culture has high impairing impact on employee productivity and performance of case company.

Table 4. 6 Influence of organizational culture on productivity and performance of NA metal workers

No	Questionnaire asked	Strongly disagree	Disagree	Agree	Strongly agree	Missed
1.	flexible to applying for a study leaves, sick leaves, and other leaves	18(23.7%)	37(48.7%)	18(23.7%)	2(2.6%)	1(1.3%)
2.	Is there a welfare to participate in social works	8(10.5%)	49(64.5%)	16(21.1%)	2(2.6%)	1(1.3%)
3.	The organization embrace proper use of knowledge management system such as library, archive, information data base to improve productivity	24(31.6%)	45(59.2%)	4(5.3%)	2(2.6%)	1(1.3%)
4.	There is a flexible working environment that allowed workers to communicate effectively with their workmates	12(15.8%)	31(40.8%)	30(39.5%)	2(2.6%)	1(1.3%)
5.	The organization is flexible in implementing different kind of improvement	2(2.6%)	24(31.6%)	46(60.5%)	3(3.9%)	1(1.3%)
6.	There is effective management commitment and organization of work teams in the implementation different kind of improvements	2(2.6%)	49(64.5%)	22(28.9%)	2(2.6%)	1(1.3%)
7.	The organization has flexible system on Material availability and Infrastructure	4(5.3%)	18(23.7%)	45(59.2%)	8(10.5%)	1(1.3%)
8.	The organizational structure, organizational Plans & Policies policy, mission and vision of the company is clearly stated and well known by all employee	12(15.8%)	31(40.8%)	29(38.2%)	2(2.6%)	2(2.6%)
9.	When the organization affected by External Factor like customer satisfaction, material supplying, tax rate, exchange rate, Political/legal has Influence on employee performance	2(2.6%)	42(55.3%)	23(30.3%)	8(10.5%)	1(1.3%)

Organizational culture has highest impact on employee productivity of the case companies. From Table 4.6, the company has good experience or positive factors in area of flexibility in implementing different kind of improvement, flexible system on material availability and

infrastructure. The positive result on implementing improvement model show that it is not going to be difficult to implement the improvement model in the company.

4.3. Qualitative data analysis

Employees were asked their thoughts on the five-employee productivity factor using an open-ended questionnaire. The first question sought employee feedback on aspects of the workplace that were not covered by the closed ended questionnaire. The responses summarize those improvements to the case company's working environment must include creating a comfortable office environment by providing ergonomically designed office equipment, managing the temperature of the office work environment, having a cafeteria, and having utilities such as cline water for drinking and showering available.

Employees have often raised concerns about the company's failure to provide personal protective equipment (PPE) on time and the lack of a clinic within the property when it comes to workplace safety and health. Employees also highlighted concerns about management commitment to understanding the importance of workplace safety and health, as well as the lack of an organizational-wide safety policy, rule, and regulation, as well as an OSH procedure.

In terms of technology, an employee noted that the organization uses outdated technologies and a labor-intensive production technique. In this instance, it is critical that the corporation introduces new technology machinery that will reduce staff load. Additionally, a company can aid its employees in getting more comfortable with modern technology by giving numerous training options, which will motivate and initiate employees to create. Employees are also concerned about technological machines breaking down, based on previous corporate experience, when machineries break down; they are not replaced on time, forcing people to labor manually or revert to older technology. In terms of improvements, technology may cause workers to have difficulty sleeping, causing unnecessary tension, and increasing laziness.

Employees raise a variety of challenges in human resource management. Employees are not feeling safe to count the company as its own because of things like employee are not supported when they are phasing problems. Human resource department of the company is not supporting employee properly instead its side for the organization benefit only, not assigning employee that fit for the job, not providing required training, not briefing, or telling clear goals and expectation and not using new technologies, understanding of employee lifestyle. Employees are not treated

equally since there is no well-organized system in the company employee treat differently. Regarding to annual live even if employee get permit there is deduction of money from salary.

Other issues in organizational culture include when a person makes a mistake during operational work, the system penalizes the employee, which demoralizes the person. If employees are dissatisfied with the organizational structure, they will leave or quit the job. There will be a drop in productivity and performance because of employee turnover, and the company should pay more attention to employees. Any kind of leave (such as before holiday lives) provided by the firm should not be subtracted from the annual lives raised by employees. Aside from the five parameters, the employee has inquired about other considerations. The results suggest that the firm now performs duties with a small number of workers and little compensation, putting a significant strain on the employees.

There is also a void in the formation of social relationships or social engagement among employees. When an employee's family member passes away or if the employee dies, the company should provide free lives for employees to attend funerals and, if feasible, provide transportation. Some businesses offer a variety of things to their employees in exchange for a long-term payment. The availability of such chances should also be considered.

To improve the above company problems employee has suggested if the organization work attentively on the negative effect of the above question if gap analysis and research on the problems conducted and experience of other company share. The company is not lead by system so to improve employee productivity and performance it is important if the company start working on the overall system of the company. The act of teamwork and providing teamwork sprit between employee can increase employee productivity and performance also motivate employee to be creative, let employee know their rights and obligations and support them. If there is a system to provide employee with bonus and incentive based on their productivity and achieved performance; the system is flexible on annual live system; if management and employee communicate properly and the idea of employee can be acceptable or can be considerable in different decision and providing of training to the concerned person.

4.4. Conceptual model development

Employee performances and Productivity Improvement Strategy model

Models provide guidance for the completion of work or the establishment of systems and refer to a representation of a real-world phenomenon (Farzana and Khalid, 2010). The result of the hypothesis show human resource management and organizational culture has higher impairing impact on dependent variables. Based on the result, it is important for the organization to focus on the improvement of the two hypotheses. Figure 4.1 has presented the histogram presentation of human resource management related problems based on the questionnaire.



Figure 4. 1 Graphical presentation of questionnaire total result of strongly disagree and disagree for human resource management related question

95% of the problems are above 50% only one-question results below 50%. Table 4.1 presented the result that are ranked above 50% and categorize the problem-based literature reviews and general knowledge to guide the researcher to the appropriate improvement model development.

Table 4. 7 Total result of strongly disagree and disagree in human resource management ranks above 50%

No	Problems	total of strongly disagree and disagree %	Categorize
1.	Training are schedule to address performance gap identified during performance evaluation	93.4	Training and development
2.	The organization offer constant internal and external training to employee	81.6	Training and development
3.	The organization has well documented training and development policy to address performance gap	81.6	Training and development
4.	Training need of employee are prioritized	77.7	Training and development
5.	The organization sponsor or allow its worker to go for further training that will help to increase work performance	76.6	Training and development
6.	Employee can express their opinions and communicate their complaints freely without fear	73.7	Leadership
7.	Employee are satisfied by their payment	73.6	System improvement
8.	There was proper induction about the job for the employee when they hire.	64.4	Leadership
9.	unexpected bonus for a job is provided to motivate the employee to be more productive	63.2	System improvement
10.	Employee performances are evaluated, and constant evaluation feedback will be given by their leaders	63.1	Leadership
11.	Employee are satisfied by leadership style of the company	59.22	Leadership
12.	leaders inspire their workers to develop their skills	57.9	Leadership
13.	There is Adequate Workload and work distribution	57.9	System improvement
14.	Employee are satisfied by their work	57.9	System improvement
15.	To inspire the employee Leader, show the actual work by participating with employee	55.3	Leadership
16.	There is a system to rewarding and promote employee depend on leader's evaluation result	52.6	Leadership
17.	leaders involve employees in key decision making	51.4	Leadership
18.	The existing salary is increasing from time to time	51.35	System improvement
19.	leaders encourage teamwork and appreciate their efforts	51.3	Leadership

Beside the cloth ended questionnaire's employee has raised problem that are related to the system. employees are not supported by the system, the system is sided for the company benefit only, the system related to annual lives, related with assigning of professionals for the job and employee are not treating equally by the system. Employees have also rose a problem related to training and development which stated that employees are not getting the chance of improving their skill through training.

Same procedure has followed for organizational culture effect too. Figure 5 has presented histogram presentation of organizational culture problems based on the questionnaire.



Figure 4. 2 Graphical presentation of questionnaire total result of strongly disagree and disagree for organizational culture related question

77.8% of the questionnaire results more than 50 % for strongly disagree and disagree. Table 13 presented the 77% result and categorized the problems based on literature reviews and general knowledge

Table 4. 8 Total result of strongly disagree and disagree in organizational culture ranks above 50%

No	Questionnaire asked	total of strongly disagree and disagree %	Categorizing
1.	The organization embrace proper use of knowledge management system such as library, archive, information data base to improve productivity	90.6	System improvement
2.	Is there a welfare to participate in social works	75	System improvement
3.	flexible to applying for a study leaves, sick leaves, and other leaves	72.4	System improvement
4.	There is effective management commitment and organization of work teams in the implementation different kind of improvements	67.1	System improvement
5.	When the organization affected by External Factor like customer satisfaction, material supplying, tax rate, exchange rate, Political/legal has Influence on employee performance	57.9	System improvement
6.	There is a flexible working environment that allowed workers to communicate effectively with their workmates	56.6	System improvement
7.	The organizational structure, organizational Plans & Policies policy, mission, and vision of the company is clearly stated and well known by all employee	56.6	System improvement

Employees also offer suggestions for improving corporate culture in addition to the closed-ended inquiry. Employee idea is related to system improvement in the sense that the system needs to foster social connection among employees while simultaneously reducing their workload.

As a result of the current concept, the researcher developed a conceptual improvement model. The conceptual model helps us understand the analysis and basic notions. A preliminary investigation revealed an alternative conceptual approach for improvement. Mohsin's conceptual model from 2010 is the most relevant for this investigation. It can be understood that training can enhance organizational productivity based on a model offered by **Mohsin (2010)** which is shown in Figure 4.4. This model focuses on the impact of effective corporate conduct on organizational productivity. Training can be influenced by unobserved heterogeneity, potential endogeneity, employee motivation, employee commitment, and job pleasure.

The researcher has modified and proposed an improvement conceptual model for employee productivity of case company based on Mohsin conceptual model of organizational productivity. The major goal of this new strategy is to increase employee productivity, which will lead to increased organizational productivity.

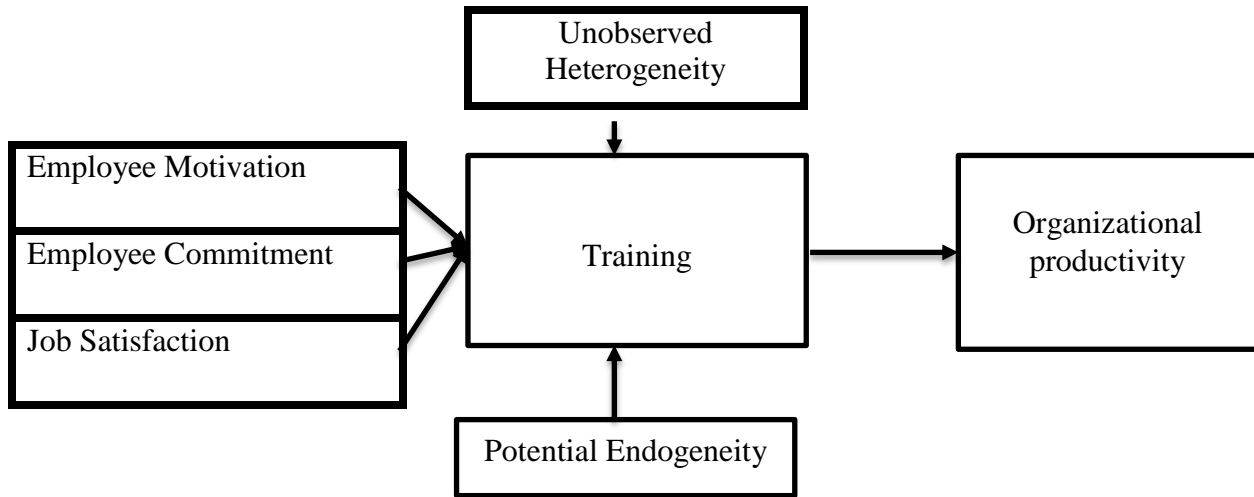


Figure 4. 3 Conceptual model development for organizational productivity (Mohsin, 2010).

In Mohsin conceptual model training has presented as a main source for organizational productivity improvement. In a meanwhile for this study training and development use as one of improvement input for improving human resource management Figure 4.3 presented the conceptual model for this study. Human resource management and organizational culture were identified as input areas for developing employee productivity in the new model. From Table 4.2 human resource management problem has categorized in to three major improvement area. Those are training and development, leadership, and system improvement. Training and development will be enhanced by developing the organization's training and development policy, according to the improvement model depicted in Figure 4.3. The policy must explicitly describe the sorts of trainings that must be provided, their priority, who is a participant, who is a trainer, and who are trainees, how the training is evaluated, and how to conduct training need assessments. Following the development of the policy, a training need assessment will be conducted to determine the sort of training required. Then, after carefully organizing the training, the training and development plan will be performed, and the results will be reviewed. If the results show no change, the process must repeat itself to identify the gap.

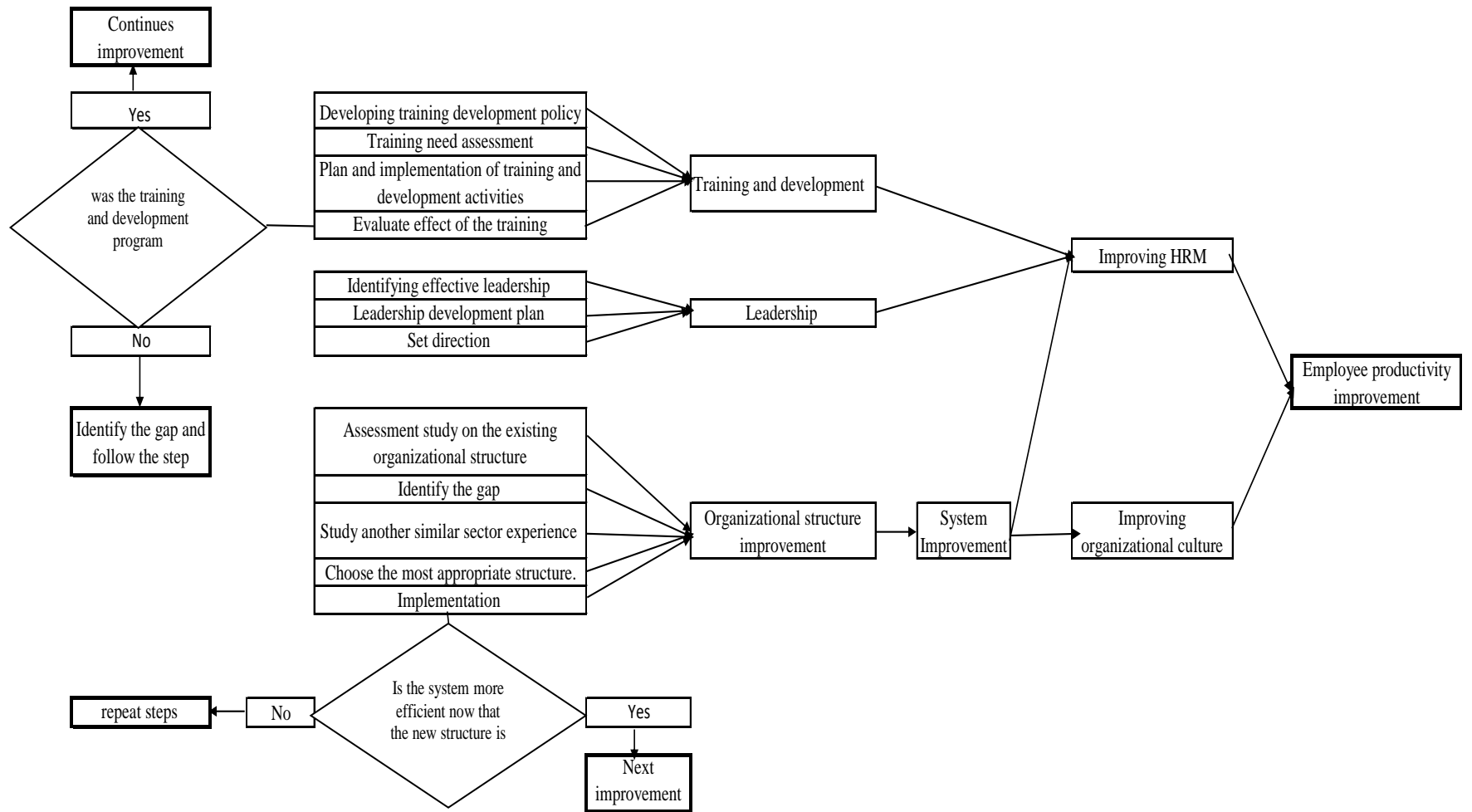


Figure 4. 4, Improvement model for employee productivity and performance

The next step for improving human resource management is improving the leadership style. The first step is to identify a successful leadership style; the second step is to build a leadership development plan, which should include employee input; and the third step is to establish a direction for implementing the chosen leadership style. Table 5.2 shows that organizational culture issues are more closely linked to system improvement issues. In this scenario, establishing a new organizational structure will be critical to solving the problem of human resource management system improvement and organizational culture system improvement. This can be accomplished by assessing the current organizational structure and identifying the gaps. Similar sector experience will lead to a more improved structure if the gap is recognized. The next stage is to choose an appropriate enhance structure and install the new structure based on the comparison and careful assessment. The model will assist the organization in continuing to improve.

Chapter Five

5. Conclusion and Recommendation

5.1 Conclusion

These projects have starts with the general objective of developing improvement conceptual model by investigating factors that affect employee's productivity. To meet the general objective of the study has followed well structure research design. Literature review has used to identify the 5 factor that has high impact on employee productivity and 5 general concepts questions has drown. The general questions are related to work Environment, workplace safety and health, information technology, Human resource management and organizational culture. Those general questions help the researcher to determining whether that aspect has a negative impact on the employee performance and productivity of a specific case company employee. From the analysis of the questionnaire the researcher has drown the conclusion. Question one which related with working environment Factor and question two which related with is workplace safety and health has less impact on the impairing factor of employee productivity. However, even though the hypothesis has less impact, there should be intensive and careful improvement works. From the concept of question, one providing natural lighting in the workplace, creating comfortable work environment for office, and providing utility like cafeteria and water need high concern for improvement. From question two creating accident-free work environment, providing emergency exit, conducting proper workplace evaluation, providing personal protective equipment properly and on time, giving priority for safety related issue, having organizational safety policy and management commitment on the act of safety need to be more concerned during improvements. The third question with basic concept of Technology has equal contribution, which mean technology has both high and less impact on employee productivity for the case company. However, during improvement activities factors like introducing of highly new technology, which can reduce employee burden should be considered, providing technological training, and allowing employee to learn technologies by their self is important to improve employee productivity and performance. Also, while new technology has introduced the concerned department has to be make sure that the new technology is not bringing negative impact like creating laziness on employee.

The fourth question, which concerns human resource management, and the fifth, which concerns company culture, have a significant negative impact on employee productivity. The research improvement area focused on those two hypotheses and the drawn improvement model because of this conclusion.

5.2 Recommendation

To be effective in today's economy, businesses must begin focusing more on staff development. Employee performances are responsible for 18% of productivity problems in the case company, refer table 1.2. This implicated that improving employee performance and productivity will minimize 18% of productivity causes. To attain this goal, the case company must effectively follow and implement the improvement model. In addition, the corporation must perform further research into other impeding concerns such as marketing issues, a shortage of raw material, employee turnover, and other concerns such as equipment availability, among others. By utilizing more research, a company may boost its productivity and contribute to the growth of GTP.

5.3 Future Research area

More studies based on enhancing employee productivity will be beneficial for the company and researchers in the future. The researcher strongly suggests conducting a study on manufacturing industry employees, one that demonstrates national and international experience with employee improvements, one that demonstrates global experience with employees, and one that demonstrates the experience of developing and developed country manufacturing employee management systems.

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APPENDICES 1.

Appendix 1 English Questionnaire

Appendix 1.1. Introductory Letter

To Whom It May Concern

Dear Sir/Madam,

I am pleased to inform you that I am a graduate student at Addis Ababa University, Addis Ababa Institute of Technology, School of Mechanical and Industrial Engineering, Industrial Engineering Stream pursuing a master's degree in industrial Engineering. As partial fulfillment of my final thesis Research, I am conducting a research on Employee **Productivity and Performance Impairing Factors and Enhancement Approaches: A Case of NA Metal Industry and Engineering.**

Please note that any information you give me will be treated with confidentiality and at no instance will it be used for any other purpose other than for this study. Your assistance will be highly appreciated. I look forward to your prompt response.

Yours Faithfully,

Bezawit Endeshaw

For further clarification:

Mobile; 251-913-73-44-71

Email; bezkine2005@gmail.com

Appendix 1.2. Questionnaire for Employees of NA metal industry and Engineering

Part I: GENERAL INFORMATION

Please Kindly tick (✓) where applicable and do not indicate your names or personnel number.

1. Gender

A) Male [] B) Female []

2. Age

A) 18 – 30 [] B) 31 – 40 []
C) 41 – 50 D) Above 51 []

3. Working Departments

A) Engineering and Production [] B) Finance administration []
C) Human Resource and personnel [] D) Property, purchasing and store []
E) Administrative and supporting staff (secretary, driver, time kipper, clinker, gardener, guar) []
F) Other department [] (please specify the name of department hear.....)

4. Work experience

A) Below 1 year [] B) 1– 3 years []
C) 4 – 6 years [] D) 7 – 10 years []

E) Above 10 years []

5. Education Level

A) Below secondary school level [] B) Secondary school level []
C) Vocational level or College diploma [] D) University or collage degree []
E) Above degree level [] F) other [] -----

Part II: Factors that Has Impact on Employee Productivity and Performance using Likert Scale Questionnaires

- ❖ The aim of this study is to investigate factors like, working environment, workplace safety, technology, human resource management and organizational culture has impact on employee productivity and performance in NA metal.

✓ Please tick on the box which you agree on with the following statements

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
INFLUENCE OF WORKING ENVIRONMENT					
1.	The working conditions is facilitated with all material				
2.	The working environment provide the natural lighting and fresh air to reach all the interior spaces				
3.	The workspace is provided with efficient lighting so you can work easily without pressure on your eyes or visual clarity				
4.	The overall temperature of your workplace is comfortable, and you can control temperature and airflow in your working place				
5.	Your workspace is free from noise distractions and there is a reasonable noise level at your workspace that won't affect your productivity and morale				
6.	The working environment invite the interaction, communication, and teamwork between employees				
7.	Due to the overall workplace environment and design, you can complete your daily tasks easily and efficiently				
INFLUENCE OF WORKPLACE SAFETY AND HEALTH					
1.	The workplace is free from accident or near miss				
2.	There is an emergency exist in the workplaces				
3.	Workplace evaluation is conducted properly				
4.	The organization provide personal protective equipment properly				
5.	There is assembling area in case of accident				
6.	First Aid kits are available in the workplace				
7.	First Aid kits are fully equipped				
8.	There is a trained first aid provider in the company				
9.	fire extinguisher is placed in the workplace				
10.	The expired date of the fire extinguisher is properly checked				
11.	Emergency drill is conducted properly				
12.	Different safety internal and external training are provided for employee				
13.	Safety related issues are solved immediately				

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
INFLUENCE OF TECHNOLOGY					
1.	Highly developed technology is used for production process				
2.	Application of high technology has an impact on employee motivation				
3.	old technology has Impact on employee performance				
4.	Skill of employees has negative impact on using technology				
5.	Application of technology has minimized the work Burdon of the employee				
6.	Application of technology has introduced for employee properly				
INFLUENCE OF HUMAN RESOURCE MANAGEMENT					
1.	There was proper induction about the job for the employee when they hire.				
2.	Employee can express their opinions and communicate their complaints freely without fear				
3.	Employee performances are evaluated, and constant evaluation feedback will be given by their leaders				
4.	The organization offer constant internal and external training to employee				
5.	The organization has well documented training and development policy to address performance gap				
6.	Training are schedule to address performance gap identified during performance evaluation				
7.	Training need of employee are prioritized				
8.	The organization sponsor or allow its worker to go for further training that will help to increase work performance				
9.	leaders inspire their workers to develop their skills				
10.	To inspire the employee Leader, show the actual work by participating with employee				
11.	leaders encourage teamwork and appreciate their efforts				
12.	leaders believe in achieving results through teams				
13.	leaders involve employees in key decision making				
14.	There is Adequate Workload and work distribution				
15.	Employee are satisfied by leadership style of the company				

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
16.	Employee are satisfied by their work				
17.	Employee are satisfied by their payment				
18.	The existing salary is increasing from time to time				
19.	There is a system to rewarding and promote employee depend on leader's evaluation result				
20.	unexpected bonus for a job is provided to motivate the employee to be more productive				
INFLUENCE OF ORGANIZATION CULTURE					
1.	flexible to applying for a study leaves, sick leaves, and other leaves				
2.	Is there a welfare to participate in social works				
3.	The organization embrace proper use of knowledge management system such as library, archive, information data base to improve productivity				
4.	There is a flexible working environment that allowed workers to communicate effectively with their workmates				
5.	The organization is flexible in implementing different kind of improvement				
6.	There is effective management commitment and organization of work teams in the implementation different kind of improvements				
7.	The organization has flexible system on Material availability and Infrastructure				
8.	The organizational structure, organizational Plans & Policies policy, mission, and vision of the company is clearly stated and well known by all employee				
9.	When the organization affected by External Factor like customer satisfaction, material supplying, tax rate, exchange rate, Political/legal has Influence on employee performance				

Part III: Open Ended Question

Beside the contain of close ended questionnaire the next question will ask about the employee opinion on employee productivity and performance impairing and enhancing factors

1. Regarding to working environment what other issue or factors can affect employee productivity and performance?-----

2. Regarding to work place safety what other issue or factors can affect employee productivity and performance?-----

3. Regarding to technology what other issue or factors can affect employee productivity and performance?-----

4. Regarding to human resource management what other issue or factors can affect employee productivity and performance?-----

5. Regarding to organizational culture what other issue or factors can affect employee productivity and performance?-----

6. What other factors that has not mentioned in above contribute to employee production and performance improvement? -----

7. What are the appropriate measures/ strategies the organization can put in Place to improve employee productivity and performance?-----

8. Do you have any other idea that must be raised in this project thesis-----

Thank you for your participation

E) አስተዳደራዊና ድጋፍ ሰጪ (ፀሀፊ፣ ሹፌር፣ ሰአት ተቆጣጣሪ፣ አትክልተኛ፣ ዕዳትና ጥበቃ) []

F) ሌሎች የስራ ክፍል [] (እባክዎ የስራውን አይነት ቢገልፁልን))

4. በኤንኤ የቆዩበት የስራ አመት

A) ከ1 አመት በታች []

B) ከ1— 3 አመት []

C) 4 — 6 አመት []

D) 7 — 10 አመት []

E) ከ10 አመት በላይ []

5. የትምህርት ደረጃ

A) ከሁለተኛ ደረጃ በታች []

B)

ሁለተኛ ደረጃና ከዛ በላይ []

C) የቴክኒክና ሞያ ወይም ኮሌጅ ዲፕሎማ []

D)

የዩኒቨርሲቲ ወይም ኮሌጅ ዲግሪ []

E) ከዲግሪ በላይ []

F) ሌሎች [] -----

ንዑስ ክፍል II: በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች ላይ የተዘጋጀ መጠይቅ

❖ የዚህ ጥናት አላማ እንደ የስራ አካባቢ (working environment)፣ የስራ ቦታ ደህንነት (workplace safety)፣ ቴክኖሎጂ (technology), የሰው ሀይል አስተዳደር (human resource management) እና የድርጅት ባህል (organizational culture) ያሉ ምክንያቶች በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ያላቸውን ተፅእኖ መለየት ነው።

✓ እባክዎ ከጥያቄው አጠገብ ከተቀመጡ አማራጮች ውስጥ እርስዎ የተስማሙበት ቦታ ላይ ይህንን ምልክት ይጠቀሙ ፡/

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልስማማም	አልስማማም	እስማማለሁ	በጣም እስማማለሁ
የስራ አካባቢ ተፅእኖ (INFLUENCE OF WORKING ENVIRONMENT)					
1.	የሥራ አካባቢዎ አስፈላጊ በሆኑ እቃዎች የተሟላ ነው?				
2.	የሥራ አካባቢዎ ውስጥ ሁሉንም የውስጥ ክፍሎች የሚያዳርስና በቂ የሆነ የተፈጥሮ ብርሃን እና ንጹህ አየር ይደርሳል?				
3.	የመስሪያ ቦታው ላይ በቂ የሆነ መብራት ስላለ ስራዎን በሚሰሩበት ወቅት በአይንዎ ላይ የሚደርስ ጫና ወይም የምስል ግልፅነት ችግር የለም?				
4.	የሥራ ቦታዎ አጠቃላይ የሙቀት መጠን ምቹ በመሆኑ				

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልስማማም	አልስማማም	እስማማለሁ	በጣም እስማማለሁ
	እና በሚሰሩበት ቦታ ውስጥ ያለው የሙቀት እና የአየር ፍሰት መቆጣጠር ስለሚቻል ስራዎን ያለምንም ችግር ማከናወን ይችላሉ?				
5.	በስራ ቦታዎ ላይ ምርታማነትዎን እና ሞራልዎን የማይነካ ምክንያታዊ ያልሆነ የድምፅ መጠን አለ?				
6.	የሥራዎ አካባቢ በሰራተኞች መካከል ያለውን መግባባቶች ፣ ግንኙነት እና የቡድን ሥራዎችን ለመስራት ያመቻል?				
7.	በአጠቃላይ የሥራ ቦታው ዲዛይን የዕለት ተዕለት ሥራዎን በቀላሉ እና በብቃት ማጠናቀቅ እንዲችሉ ያስችላል?				
የሥራ ቦታ ደህንነት እና ጤና ተጽዕኖ (INFLUENCE OF WORKPLACE SAFETY AND HEALTH)					
1.	የሥራ ቦታዎ በቀላሉ ለአደጋ ወይም ለኒርሚስ የተጋለጠ ነው?				
2.	በሥራ ቦታዎ ላይ ያሉ የድንገተኛ አደጋ መውጫ በሮች ዝግጁ ናቸው?				
3.	ከደህንነት ጋር የተያያዘ የሥራ ቦታ ግምገማ በወቅቱና በአግባቡ ይደረጋል?				
4.	ድርጅቱ የግል መከላከያ መሣሪያዎችን (PPE) በአግባቡ ያቀርባል?				
5.	አደጋ ቢከሰት የሚሰጣሰቡበት የአደጋ ጊዜ መሰብሰቢያ ቦታ ተዘጋጅቷል?				
6.	የመጀመሪያ እርዳታ መርጃ መሳሪያዎች ተዘጋጅቷል?				

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልስማማም	አልስማማም	እስማማለሁ	በጣም እስማማለሁ
7.	የመጀመሪያ እርዳታ መስጫ መሳሪያዎች ሙሉ በሙሉ የታጠቁ ናቸው?				
8.	በኩባንያው ውስጥ የሰለጠነ የመጀመሪያ እርዳታ ሰጭ አለ?				
9.	የእሳት ማጥፊያዎች በሥራ ቦታ ይቀመጣል?				
10.	የእሳት ማጥፊያዎች ጊዜው የሚያልፍበት ቀን በትክክል ይረጋገጣል?				
11.	አደጋ በደርስ ማድረግ ስላለብን ስራዎች የሚያሳይ የአደጋ ጊዜ መሰርሰሪያ (Emergency drill) በትክክል ይካሄዳል ?				
12.	ለሠራተኛ የተለያዩ ክደህንነት ጋር የተያያዙ ውስጣዊና ውጫዊ ሥልጠናዎች ይሰጣሉ?				
13.	ድርጅቱ ውስጥ የሚከሰቱ ክደህንነት ጋር የተዛመዱ ጉዳዮች ወዲያውኑ ይፈታሉ?				
የቴክኖሎጂ ተጽዕኖ (INFLUENCE OF TECHNOLOGY)					
1.	ለምርት ሂደት እድገት ድርጅቱ ዘመናዊ ቴክኖሎጂዎችን ጥቅም ላይ ያውላል?				
2.	የከፍተኛ ቴክኖሎጂ አተገባበር (Application of high technology) በሠራተኛ ተነሳሽነት ላይ ተጽዕኖ አለው?				
3.	ነባር ቴክኖሎጂዎች (old technology) በሠራተኛ ስራ አፈፃፀም ላይ ተጽዕኖ አለው?				
4.	የሰራተኞች ችሎታ በቴክኖሎጂ አጠቃቀም ላይ አሉታዊ ተፅእኖ አለው?				
5.	ዘመናዊ የሆኑ የቴክኖሎጂ መሳሪያዎችን በመጠቀም				

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልስማማም	አልስማማም	እስማማለሁ	በጣም እስማማለሁ
	የሰራተኛውን የሥራ ጫና ተቀንሷል?				
6.	ድርጅቱ አዳዲስ ቴክኖሎጂዎችን በሚተገብር ጊዜ ስለቴክኖሎጂው አጠቃቀም ለሰራተኛው በትክክል መንገድ ያስተዋውቃል?				
የሰው ሀብት አስተዳደር ተጽዕኖ (INFLUENCE OF HUMAN RESOURCE MANAGEMENT)					
1.	ሠራተኛ ሲቀጠር ስለ ሚሰራበት ስራ ሂደትና ስለ ሥራው ተገቢ የሆነ ትውውቅ (induction) ይደረግለታል?				
2.	ሰራተኛ ሀሳባቸውን መግለጽ እና ቅሬታቸውን ያለምንም ፍርሃት በነፃነት ማስተላለፍ ይችላሉ?				
3.	የሰራተኞች አፈፃፀም ይገመገማል ፣ እና የማያቋርጥ የግምገማ ግብረመልሶች በመሪዎቻቸው አማካኝነት ይሰጣቸዋል?				
4.	የአፈፃፀም ክፍተትን ለመቅረፍ ድርጅቱ የሥልጠና ፖሊሲ በሚገባ ቀርቦ ይጠቀማል?				
5.	ድርጅቱ ለሠራተኞች ተከታታይነት ያለው የውስጥና የውጭ ሥልጠና ይሰጣል?				
6.	በአፈፃፀም ምዘና (ግምገማ) ወቅት የተገኘውን የአፈፃፀም ክፍተት ለመቅረፍ የተለያዩ ሥልጠናዎች ታቅደው ይሰጣሉ?				
7.	የሰራተኛ የሥልጠና ፍላጎት ቅድሚያ ተሰጥቶት ስልጠናዎች ይታቀዳሉ				
8.	ሰራተኞችን በራሳቸው ተነሳሽነት የሥራ አፈፃፀም ክፍ ለማድረግ የሚረዳ ተጨማሪ ሥልጠናዎችና ትምህርቶችን መውሰድ በሚፈልጉበት ወቅት ድርጅቱ እስፖንሰር በማድረግ ወይም ስልጠናዎችን እንዲወስዱ በቂ የሆነ ጊዜ እንዲኖራቸው በመፍቀድ አስፈላጊውን ትብብር ያደርጋል?				
9.	መሪዎች ሰራተኞች ችሎታቸውን እንዲያዳብሩ ያበረታታሉ ያነሳሳሉ?				

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልሰማማም	አልሰማማም	እስማማለሁ	በጣም እስማማለሁ
10.	መሪዎች ከሰራተኛ ጋር ስራውን አንድ ላይ በመሰራትና እንዴት እንደሚሰራ በማሳየት የሰራተኛውን የስራ ተነሳሽነት ይጨምራሉ				
11.	መሪዎች የቡድን ስራን ያበረታታሉ እናም ጥረታቸውን ያደንቃሉ				
12.	መሪዎች በቡድን አማካይነት ውጤቶችን በማምጣት ያምናሉ				
13.	መሪዎች ቁልፍ ውሳኔ በሚሰጥበት ጊዜ ሰራተኞችን ያሳተፋሉ?				
14.	ሰራተኛው በኩባንያው የአመራር ዘይቤ ረክቷል				
15.	ተገቢ የሆነ የሥራ ጫና እና የሥራ ስርጭት አለ				
16.	ሰራተኛ በስራቸው ደስተኞች ናቸው?				
17.	ሰራተኛው በሚከፈላቸው ክፍያዎች ደስተኞች ናቸው?				
18.	ምክንያታዊ የሆነ የደምዘ ጭማሪዎች ይደረጋሉ (አሁን ያለው ደመወዝ ከጊዜ በኋላ ይሻሻላል)				
19.	የግምገማ ውጤት ላይ በመመርኮዝ ሠራተኞች የሚሸሉበትና እድገት የሚያገኙበት ድርጅታዊ ሥርዓት አለ				
20.	ሰራተኛው የበለጠ ውጤታማና ተነሳሽ እንዲሆን ለማነሳሳት ያልተጠበቀ ቦኔስ (ጉርሻ) ይሰጣል?				
የድርጅት ባህል ተጽዕኖ (INFLUENCE OF ORGANIZATION CULTURE)					
1.	ለትምህርት፣ ለህክምናና እና ለሌሎች ተያያዥነት ላላቸው ጉዳዮች የሚሰጡ ፍቃዶችን ያለችግር ይሰጣሉ?				
2.	በማህበራዊ ስራዎች ውስጥ ለመሳተፍ ደህንነት አለ?				
3.	ምርታማነትን ለማሻሻል ድርጅቱ እንደ ቤተመጻሕፍት ፣ መዝገብ ቤት ፣ የመረጃ የሚገኝባቸው የእውቀት አያያዝ ስርዓትን በአግባቡ ይጠቀማል				
4.	ሠራተኞች ከሥራ ባልደረቦቻቸው ጋር ውጤታማ በሆነ መንገድ እንዲነጋገሩ የሚያስችላቸው ተለዋዋጭ የሥራ ሁኔታ አለ				
5.	ድርጅቱ የተለያዩ ዓይነት ማሻሻያዎችን ለመተግበር ሁሌም ዝግጁ ነው?				

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልሰማማም	አልሰማማም	እስማማለሁ	በጣም እስማማለሁ
6.	የተለያዩ ዓይነት ማሻሻያዎችን በመተግበር ረገድ ውጤታማ የሥራ አመራር ቁርጠኝነት እና የሥራ ቡድኖች አደረጃጀት አለ?				
7.	ድርጅቱ በቁሳዊ አቅርቦት እና መሰረተ ልማት ላይ ቁርጠኛ ነው?				
8.	የኩባንያው የድርጅታዊ መዋቅር ፣ የድርጅት ዕቅዶች እና ፖሊሲዎች ፣ ተልዕኮ እና ራዕይ በግልፅ የተቀመጠ እና በሁሉም ሰራተኛ የታወቀ ነው?				
9.	በድርጅቱ እንደ የደንበኞችን እርካታ ፣ የቁሳቁስ አቅርቦት ፣ የታክስ መጠን ፣ የምንዛሬ ተመን ፣ የፖለቲካ / የሕግ ችግሮች የመሳሰሉ የውጫዊ ችግሮች በሚያጋጥሙ ወቅት ችግሮቹ በሠራተኛ የስራ አፈፃፀም ላይ ተጽዕኖ ይፈጥራሉ?				

ንዑስ ክፍል III: ሀሳብን በመግልፅ የሚመለሱ ጥያቄዎች

የሚቀጥለው ጥያቄ ስለ ሰራተኞች ምርታማነት እና ስራ አፈፃፀም የሚያዳክሙና እና የሚያሻሽሉ ምክንያቶች የእርስዎን አስተያየት ይጠይቃል።

1. የሥራ አካባቢን በተመለከተ የሠራተኛውን ምርታማነት እና አፈፃፀም ላይ ተጽዕኖ ሊያሳርፉ የሚችሉ ሌሎች ያልተነሱ ጉዳዮች ወይም ምክንያቶች አሉ? በዝርዝር ቢቀመጥ--

2. የሥራ ቦታን ደህንነት በተመለከተ በሠራተኛ ምርታማነት እና አፈፃፀም ላይ ተጽዕኖ ሊያሳድሩ የሚችሉ ሌሎች ጉዳዮች ወይም ምክንያቶች አሉ? በዝርዝር ቢቀመጥ -----

3. ከቴክኖሎጂ ጋር በተያያዘ የሠራተኛውን ምርታማነት እና አፈፃፀም ላይ ተጽዕኖ ሊያሳርፉ የሚችሉ ሌሎች ጉዳዮች ወይም ምክንያቶች አሉ? በዝርዝር ቢቀመጥ-----

4. የሰው ኃይል አያያዝን በተመለከተ በሠራተኛ ምርታማነት እና አፈፃፀም ላይ ተጽዕኖ ሊያሳድሩ የሚችሉ ሌሎች ጉዳዮች ወይም ምክንያቶች አሉ? በዝርዝር ቢቀመጥ-----

5. ድርጅታዊ ባህልን በተመለከተ የሠራተኛውን ምርታማነት እና አፈፃፀም ላይ ተጽዕኖ ሊያሳርፉ የሚችሉ ሌሎች ጉዳይ ወይም ምክንያቶች አሉ? በዝርዝር ቢቀመጥ-----

6. ከላይ ከተነሱት የሠራተኞች ምርታማነትና የስራ አፈፃፀም መዳከምና መሻሻል ላይ አስተዋፅዖ ከሚያደርጉ ነጥቦች በተጨማሪ ያልተጠቀሱት ሌሎች ምክንያቶችና ማሻሻያ ነጥቦች ቢነሱ?-----

7. ድርጅቱ የሰራተኞችን ምርታማነት እና አፈፃፀም ለማሻሻል የሚያስቀምጣቸው ተገቢ እርምጃዎች / ስትራቴጂዎች ምንድን ናቸው?-----

8. በዚህ የፕሮጀክት ፅሁፍ ውስጥ መነሳት አለበት ብለው የሚያስቡት ሌሎች ጉዳዮችና አስተያየት አለዎት? -----

ስለተሳትፎዎ ከልብ አመሰግናለሁ!

APPENDICES 2

Questionnaire Feedback from researcher adviser and coworkers

Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
The organization sponsor or allow its worker to go for further training that will help to increase work performance				
leaders inspire their workers to develop their skills				
To inspire the employee Leader, show the actual work by participating with employee				
leaders encourage teamwork and appreciate their efforts				
leaders believe in achieving results through teams				
leaders involve employees in key decision making				
There is Adequate Workload and work distribution				
Employee are satisfied by leadership style of the company				

Employee are satisfied by their work				
Employee are satisfied by their payment				
The existing salary is increasing from time to time				
There is a system to rewarding and promote employee depend on leader's evaluation result				
unexpected bonus for a job is provided to motivate the employee to be more productive				
INFLUENCE OF ORGANIZATION CULTURE				
flexible to applying for a study leaves, sick leaves, and other leaves				
Is there a welfare to participate in social works				
The organization embrace proper use of knowledge management system such as library, archive, information data base to improve productivity				
There is a flexible working environment that allowed workers to communicate effectively with their workmates				
Influence of Internal Factors				
Influence of External Factor (Government)				

Part III: Open Ended Question

Beside the contain of close ended questionnaire the next question will ask about the employee opinion on employee productivity and performance impairing and enhancing factors

- List another related working environment** issue? **–(if the question is more elaborated so that the respondent can understand it)**-----

- Regarding to work place safety what other issue or factors can affect employee productivity and performance **(missing of question marks)**-----

- Regarding to technology what other issue or factors can affect employee productivity and performance?-----

- Regarding to human resource management what other issue or factors can affect employee productivity and performance?-----

- Regarding to organizational culture what other issue or factors can affect employee productivity and performance?-----

6. What other factors that has not mentioned in above contribute to employee production and performance improvement? -----

7. What are the appropriate measures/ strategies the organization can put in Place to improve employee productivity and performance?-----

8. If there the questionnaire include the response comment section

Thank you for your participation

APPENDICES 3

Sample filled questionnaire

Appendix B: Questionnaire for Employees of NA metal industry and Engineering

Part I: GENERAL INFORMATION

Please Kindly tick (✓) where applicable and do not indicate your names or personnel number.

1. Gender

A) Male B) Female []

2. Age

A) 18 – 30 [] B) 31 – 40 []

C) 41 – 50 D) Above 51 [

3. Working Departments

A) Engineering and Production [] B) Finance administration []

C) Human Resource and personnel [] D) Property, purchasing and store []

E) Administrative and supporting staff (secretary, driver, time kipper, clinker, gardener, guar) []

F) Other department [] (please specify the name of department hear. *H.S.E... Department..*)

4. Work experience

A) Below 1 year [] B) 1– 3 years []

C) 4 – 6 years [] D) 7 – 10 years []

E) Above 10 years [

5. Education Level

A) Below secondary school level [] B) Secondary school level []

C) Vocational level or College diploma [D) University or collage degree []

E) Above degree level [] F) other [] -----

Part II: Factors that Has Impact on Employee Productivity and Performance using Likert Scale Questionnaires

❖ The aim of this study is to investigate factors like, working environment, workplace safety, technology, human resource management and organizational culture has impact on employee productivity and performance in NA metal.

✓ Please tick on the box which you agree on with the following statements

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
INFLUENCE OF WORKING ENVIRONMENT					
1.	The working conditions is facilitated with all material		✓		
2.	The working environment provide the natural lighting and fresh air to reach all the interior spaces			✓	
3.	The workspace is provided with efficient lighting so you can work easily without pressure on your eyes or visual clarity			✓	
4.	The overall temperature of your workplace is comfortable, and you are able to control temperature and airflow in your working place			✓	
5.	Your workspace is free from noise distractions and there is a reasonable noise level at your workspace that won't affect your productivity and morale		✓		
6.	The working environment invite the interaction, communication and teamwork between employees			✓	
7.	Due to the overall workplace environment and design you can complete your daily tasks easily and efficiently			✓	
INFLUENCE OF WORKPLACE SAFETY AND HEALTH					
1.	The workplace is free from accident or near miss		✓		
2.	There is an emergency exist in the workplaces			✓	
3.	Workplace evaluation is conducted properly			✓	
4.	The organization provide personal protective equipment properly			✓	
5.	There is assembling area in case of accident			✓	
6.	First Aid kits are available in the workplace			✓	
7.	First Aid kits are fully equipped			✓	
8.	There is a trained first aid provider in the company			✓	
9.	fire extinguisher is placed in the workplace			✓	
10.	The expired date of the fire extinguisher is properly checked			✓	
11.	Emergency drill is conducted properly			✓	
12.	Different safety internal and external training are provided for employee			✓	

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
13.	Safety related issues are solved immediately			✓	
INFLUENCE OF TECHNOLOGY					
1.	Highly developed technology is used for production process		✓		
2.	Application of high technology has an impact on employee motivation		✓		
3.	old technology has Impact on employee performance			✓	
4.	Skill of employees has negative impact on using technology			✓	
5.	Application of technology has minimized the work Burdon of the employee			✓	
6.	Application of technology has introduced for employee properly		✓		
INFLUENCE OF HUMAN RESOURCE MANAGEMENT					
1.	There was proper induction about the job for the employee when they hire.			✓	
2.	Employee can express their opinions and communicate their complaints freely without fear			✓	
3.	Employee performance are evaluated, and constant evaluation feedback will be given by their leaders			✓	
4.	The organization offer constant internal and external training to employee			✓	
5.	The organization has well documented training and development policy to address performance gap			✓	
6.	Training are schedule to address performance gap identified during performance evaluation			✓	
7.	Training need of employee are prioritized			✓	
8.	The organization sponsor or allow its worker to go for further training that will help to increase work performance			✓	
9.	leaders inspire their workers to develop their skills			✓	
10.	To inspire the employee Leader, show the actual work by participating with employee			✓	
11.	leaders encourage teamwork and appreciate their efforts			✓	

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
12.	leaders believe in achieving results through teams			✓	
13.	leaders involve employees in key decision making			✓	
14.	There is Adequate Workload and work distribution		✓		
15.	Employee are satisfied by leadership style of the company		✓		
16.	Employee are satisfied by their work			✓	
17.	Employee are satisfied by their payment		✓		
18.	The existing salary is increasing from time to time		✓		
19.	There is a system to rewarding and promote employee depend on leader's evaluation result			✓	
20.	unexpected bonus for a job is provided to motivate the employee to be more productive			✓	
INFLUENCE OF ORGANIZATION CULTURE					
1.	flexible to applying for a study leaves, sick leaves, and other leaves		✓		
2.	Is there a welfare to participate in social works		✓		
3.	The organization embrace proper use of knowledge management system such as library, archive, information data base to improve productivity		✓		
4.	There is a flexible working environment that allowed workers to communicate effectively with their workmates			✓	
5.	The organization is flexible in implementing different kind of improvement			✓	
6.	There is effective management commitment and organization of work teams in the implementation different kind of improvements		✓		
7.	The organization has flexible system on Material availability and Infrastructure		✓		
8.	The organizational structure, organizational Plans & Policies policy, mission and vision of the company is clearly stated and well known by all employee			✓	

No	Factors affecting employee productivity and performance	Strongly Disagree	Disagree	Agree	Strongly Agree
9.	When the organization affected by External Factor like customer satisfaction, material supplying, tax rate, exchange rate, Political/legal has Influence on employee performance			✓	

Part III: Open Ended Question

Beside the contain of close ended questioner the next question will ask about the employee opinion on employee productivity and performance impairing and enhancing factors

- Regarding to working environment what other issue or factors can affect employee productivity and performance? *Poor lighting, Air quality, Noise, poor design and lay out of work place, office building, furniture and Color. In general unsafe and uncomfortable working environment can impact on employee productivity and performance.*
- Regarding to work place safety what other issue or factors can affect employee productivity and performance? *Not having organizational safety policies, rule regulations, Not protecting employees from work accident and injury, lack of OSH procedure,*
- Regarding to technology what other issue or factors can affect employee productivity and performance? *Indeed, Technology has made increased productivity and performance. But unfortunately, It leads to trouble sleeping, creating unnecessary stress for workers and increase laziness.*
- Regarding to human resource management what other issue or factors can affect employee productivity and performance? *Not assigning employees fit for the job, Not providing required training, Not briefing or telling clear goals and expectations, Not hearing or accepting employees whining and complaints, Not using new technology.*
- Regarding to organizational culture what other issue or factors can affect employee productivity and performance? *If employees are not contented with the culture, work environment, organizational structure they will leave or quit the job. Due to the turnover of employees - New hire there would be a decrease of productivity and performance.*

6. What other factors that has not mentioned in above contribute to employee production and performance improvement? -----

7. What are the appropriate measures/ strategies the organization can put in Place to improve employee productivity and performance? *If the five factors (negative imp acts) from 1-5 Corrected and Reviewed positively, effective productivity and performance could be obtained*

8. Do you have any other idea that must be raised in this project thesis-----

Thank you for your participation

Annex for No2:- Also, Less employment opportunities, Huge losses if the technology fails to work properly and, other activities what human Can do, a machine Can never do.

ክፍል ሁለት: በሌንኤ ሊንደስትሪያል እና ሊንጅንጊንግ ስራተኞች የተዘጋጀ መጠይቅ

ንዑስ ክፍል I: አጠቃላይ መረጃ

በመረጡት መልስ ላይ ይህንን ምልክት (✓) ይጠቀሙ አባዘዎ ሰሞን እና አድራሻዎን እንዳይፀፉ።

1. ስታ

- A) ወንድ [] B) ሴት [✓]

2. እድሜ

- A) 18 - 30 [] B) 31 - 40 [✓]
 C) 41 - 50 D) Above 51 []

3. የሚሰሩበት ስራ ክፍል

- A) በምህንድስናና ምርት ሂደት ስራ ክፍል [] B) በፋይናንስና አድምጋስትራሽን ስራ ሂደት []
 C) ሰው ሀይልና ስራተኞች ጉዳይ አስፈጻሚ ስራ ሂደት [] D) ንብረት ክፍልና ኢቃ ግዥ ስራ ሂደት [✓]
 E) አስተዳደራዊና ድጋፍ ሰጪ (ፀሀፊ፣ ሹራር፣ ሰለት ተቆጣጣሪ፣ አትክልተኛ፣ ፅዳትና ጥበቃ) []
 F) ሌሎች የስራ ክፍል [] (አባዘዎ የስራውን አይነት ቢገልፁልን)

4. በሌንኤ የቆየበት የስራ አመት

- A) ከ1 አመት በታች [] B) ከ1 - 3 አመት []
 C) 4 - 6 አመት [] D) 7 - 10 አመት [✓]
 E) ከ10 አመት በላይ []

5. የትምህርት ደረጃ

- A) ከሁለተኛ ደረጃ በታች [] B) ሁለተኛ ደረጃና ከዛ በላይ []
 C) የቴክኒክና ሞያ ወይም ኮሌጅ ዲፕሎማ [] D) የዩኒቨርሲቲ ወይም ኮሌጅ ዲግሪ [✓]
 E) ከዲግሪ በላይ [] F) ሌሎች [] -----

ንዑስ ክፍል II: በስራተኞች ምርታማነትና ስራ አፈጻጸም ላይ ተፅዕኖ የሚፈጠሩ ምክንያቶች ላይ የተዘጋጀ መጠይቅ

❖ የዚህ ጥናት አላማ አንደ የስራ አካባቢ (working environment)፣ የስራ ቦታ ደህንነት (workplace safety)፣ ቴክኖሎጂ (technology)፣ የሰው ሀይል አስተዳደር (human resource management) እና የድርጅት ባህል (organizational culture) ያሉ ምክንያቶች በስራተኞች ምርታማነትና ስራ አፈጻጸም ላይ ያላቸውን ተፅዕኖ መለየት ነው።

✓ አባዘዎ ከጥያቄው አጠገብ ከተቀመጡ አማራጮች ውስጥ እርስዎ የተስማሙበት ቦታ ላይ ይህንን ምልክት ይጠቀሙ ✓

ተ.ቁ	በሥራ ተኮሮች ምርጫ ስራ አፈጻጸም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልሰማም	አልሰማም	አሰማለሁ	በጣም አሰማለሁ
የስራ አካባቢ ተፅእኖ (INFLUENCE OF WORKING ENVIRONMENT)					
1.	የሥራ አካባቢዎ አስፈላጊ በሆኑ እቃዎች የተሟላ ነው?		✓		
2.	የሥራ አካባቢዎ ውስጥ ሁሉንም የውስጥ ክፍሎች የሚያዳርስና በቂ የሆነ የተፈጥሮ ብርሃን እና ንጹህ አየር ይደርሳል?		✓	✓	
3.	የመሰሪያ ቤታው ላይ በቂ የሆነ መብራት ስላለ ስራዎን በሚሰሩበት ወቅት በአይንዎ ላይ የሚደርስ ጫና ወይም የምስል ግልፅነት ችግር የለም?			✓	
4.	የሥራ ቤታዎ አጠቃላይ የሙቀት መጠን ምቹ በመሆኑ እና በሚሰሩበት ቦታ ውስጥ ያለው የሙቀት እና የአየር ፍሰት መቆጣጠር ስለሚቻል ስራዎን ያለምንም ችግር ማከናወን ይችላሉ?		✓		
5.	በስራ ቤታዎ ላይ ምርጫ ስራዎን እና ምርጫዎን የማይነካ ምክንያታዊ ያልሆነ የድምፅ መጠን አለ?	✓			
6.	የሥራዎ አካባቢ በሠራተኞች መካከል ያለውን መግባባቶች ፣ ግንኙነት እና የቡድን ሥራዎችን ለመስራት ያመቻል?		✓		
7.	በአጠቃላይ የሥራ ቤታው ዲዛይን የዕለት ተዕለት ሥራዎን በቀላሉ እና በብቃት ማጠናቀቅ እንዲችሉ ያስችላል?		✓		
የሥራ ቤታ ደህንነት እና ጤና ተጽዕኖ (INFLUENCE OF WORKPLACE SAFETY AND HEALTH)					
1.	የሥራ ቤታዎ በቀላሉ ለአደጋ ወይም ለኒርሚስ የተጋለጠ ነው?		✓		
2.	በሥራ ቤታዎ ላይ ያሉ የድንገተኛ አደጋ መውጫ በሮች ዝግጁ ናቸው?		✓		
3.	ከደህንነት ጋር የተያያዘ የሥራ ቤታ ግምገማ በወቅቱና በአግባቡ ይደረጋል?		✓		
4.	ድርጅቱ የግል መከላከያ መሣሪያዎችን (PPE) በአግባቡ ያቀርባል?		✓		
5.	አደጋ ቢከሰት የሚሰጥበት የአደጋ ጊዜ መሰብሰቢያ ቤታ ተዘጋጅቷል?		✓	✓	
6.	የመጀመሪያ እርዳታ መርጃ መሳሪያዎች ተዘጋጅቷል?			✓	
7.	የመጀመሪያ እርዳታ መስጫ መሳሪያዎች ሙሉ በሙሉ የታጠቁ ናቸው?			✓	
8.	በኩባንያው ውስጥ የሰለጠነ የመጀመሪያ እርዳታ ሰጭ አለ?		✓		
9.	የእሳት ማጥፊያዎች በሥራ ቤታ ይቀመጣል?			✓	
10.	የእሳት ማጥፊያዎች ጊዜው የሚያልፍበት ቀን በትክክል ይረጋገጣል?			✓	
11.	አደጋ ቢደርስ ማድረግ ስላሉበት ስራዎች የሚያሳይ የአደጋ ጊዜ መሰብሰቢያ (Emergency drill) በትክክል ይካሄዳል?		✓		
12.	ለሠራተኛ የተለያዩ ከደህንነት ጋር የተያያዙ ውስጣዊና ውጫዊ ሥልጠናዎች ይሰጣሉ?			✓	
13.	ድርጅቱ ውስጥ የሚከሰቱ ከደህንነት ጋር የተዛመዱ ጉዳዮች ወዲያውኑ ይፈታሉ?		✓		

ተ.ቁ	በሰራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልሰማምም	አልሰማምም	እስማማለሁ	በጣም እስማማለሁ
የቴክኖሎጂ ተጽዕኖ (INFLUENCE OF TECHNOLOGY)					
1.	ለምርት ሂደት እድገት ድርጅቱ ዘመናዊ ቴክኖሎጂዎችን ጥቅም ላይ ያውላል?			✓	
2.	የከፍተኛ ቴክኖሎጂ አተገባበር (Application of high technology) በሠራተኛ ተነሳሽነት ላይ ተጽዕኖ አለው?		✓		
3.	ነባር ቴክኖሎጂዎች (old technology) በሠራተኛ ስራ አፈፃፀም ላይ ተጽዕኖ አለው?			✓	
4.	የሰራተኞች ችሎታ በቴክኖሎጂ አጠቃቀም ላይ አሉታዊ ተፅእኖ አለው?			✓	
5.	ዘመናዊ የሆኑ የቴክኖሎጂ መሳሪያዎችን በመጠቀም የሰራተኛውን የሥራ ጫና ተቀንሷል?		✓		
6.	ድርጅቱ አዳዲስ ቴክኖሎጂዎችን በሚተገበር ጊዜ ስለቴክኖሎጂው አጠቃቀም ለሠራተኛው በትክክል መንገድ ያስተዋውቃል?		✓		
የሰው ሀብት አስተዳደር ተጽዕኖ (INFLUENCE OF HUMAN RESOURCE MANAGEMENT)					
1.	ሠራተኛ ሲቀጠር ስለ ሚሰራበት ስራ ሂደትና ስለ ሥራው ተገቢ የሆነ ትውውቅ (induction) ይደረግለታል?		✓		
2.	ሰራተኛ ሀሳባቸውን መግለጽ እና ቅሬታቸውን ያለምንም ፍርሃት በነፃነት ማስተላለፍ ይችላሉ?		✓		
3.	የሰራተኞች አፈፃፀም ይገመገማል ፤ እና የማያቋርጥ የግምገማ ግብረመልሶች በመሪዎቻቸው አማካኝነት ይሰጣቸዋል?		✓	✓	
4.	የአፈፃፀም ክፍተትን ለመቅረፍ ድርጅቱ የሥልጠና ፖሊሲ በሚገባ ቀርቦ ይጠቀማል?			✓	
5.	ድርጅቱ ለሠራተኞች ተከታታይነት ያለው የውስጥና የውጭ ሥልጠና ይሰጣል?		✓		
6.	በአፈፃፀም ምዘና (ግምገማ) ወቅት የተገኘውን የአፈፃፀም ክፍተት ለመቅረፍ የተለያዩ ሥልጠናዎች ታቅደው ይሰጣሉ?		✓		
7.	የሰራተኛ የሥልጠና ፍላጎት ቅድሚያ ተሰጥቶት ስልጠናዎች ይታቀዳሉ?		✓		
8.	ሰራተኞችን በራሳቸው ተነሳሽነት የሥራ አፈፃፀም ክፍ ለማድረግ የሚረዱ ተጨማሪ ሥልጠናዎችና ትምህርቶችን መውሰድ በሚፈልጉበት ወቅት ድርጅቱ እስፖንሰር በማድረግ ወይም ስለጠናዎችን እንዲወስዱ በቂ የሆነ ጊዜ እንዲኖራቸው በመፍቀድ አስፈላጊውን ትብብር ያደርጋል?		✓		
9.	መሪዎች ሰራተኞች ችሎታቸውን እንዲያዳብሩ ያበረታታሉ ያነሳሳሉ?		✓		
10.	መሪዎች ከሰራተኛ ጋር ስራውን እንድ ላይ በመስራትና እንዴት እንደሚሰሩ በማሳየት የሰራተኛውን የሰራ ተነሳሽነት ይጨምራሉ?		✓		
11.	መሪዎች የቡድን ስራን ያበረታታሉ እናም ጥረታቸውን ያደንቃሉ?		✓		

ተ.ቁ	በሥራተኞች ምርታማነትና ስራ አፈፃፀም ላይ ተፅእኖ የሚፈጥሩ ምክንያቶች	በጣም አልሰማም	አልሰማም	አሰማለሁ	በጣም አሰማለሁ
12.	መሪዎች በቡድን አማካይነት ውጤቶችን በማምጣት ያምናሉ			✓	
13.	መሪዎች ቁልፍ ውሳኔ በሚሰጥበት ጊዜ ስራተኞችን ያሳተፋሉ?	✓			
14.	ስራተኛው በኩባንያው የአመራር ዘይቤ ረከቷል	✓			
15.	ተገቢ የሆነ የሥራ ጫና እና የሥራ ስርጭት አለ	✓			
16.	ስራተኛው በስራቸው ደስተኞች ናቸው?		✓		
17.	ስራተኛው በሚከፈላቸው ክፍያዎች ደስተኞች ናቸው?	✓			
18.	ምክንያታዊ የሆነ የደሞዝ ጭማሪዎች ይደረጋሉ (አሁን ያለው ደመወዝ ከጊዜ በኋላ ይሻሻላል)			✓	
19.	የግምገማ ውጤት ላይ በመመርኮዝ ሠራተኞች የሚሸለሙበትና አድገት የሚያገኙበት ድርጅታዊ ሥርዓት አለ			✓	
20.	ስራተኛው የበለጠ ውጤታማና ተነሳሽ እንዲሆን ለማሳሳት ያልተጠበቀ በነሰ (ጉርሻ) ይሰጣል?		✓		
የድርጅት ባህል ተጽዕኖ (INFLUENCE OF ORGANIZATION CULTURE)					
1.	ለትምህርት፣ ለህክምናና እና ለሌሎች ተያያዥነት ላላቸው ጉዳዮች የሚሰጡ ፍቃዶችን ያለቸግር ይሰጣሉ?		✓		
2.	በማህበራዊ ስራዎች ውስጥ ለመሳተፍ ደህንነት አለ?		✓		
3.	ምርታማነትን ለማሻሻል ድርጅቱ እንደ ቤተመግባሩ ፣ መዝገብ ቤት ፣ የመረጃ የሚገኝባቸው የአውቀት አያያዝ ስርዓትን በአግባቡ ይጠቀማል		✓		
4.	ሠራተኞች ከሥራ ባልደረቦቻቸው ጋር ውጤታማ በሆነ መንገድ እንዲነጋገሩ የሚያስችላቸው ተለዋዋጭ የሥራ ሁኔታ አለ		✓		
5.	ድርጅቱ የተለያዩ ዓይነት ማሻሻያዎችን ለመተግበር ሁሌም ዝግጁ ነው?			✓	
6.	የተለያዩ ዓይነት ማሻሻያዎችን በመተግበር ረገድ ውጤታማ የሥራ አመራር ቁርጠኝነት እና የሥራ ቡድኖች አደረጃጀት አለ?		✓		
7.	ድርጅቱ በቁሳዊ አቅርቦት እና መሰረተ ልማት ላይ ቁርጠኛ ነው?		✓		
8.	የኩባንያው የድርጅታዊ መዋቅር ፣ የድርጅት ዕቅዶች እና ፖሊሲዎች ፣ ተልዕኮ እና ራዕይ በግልፅ የተቀመጠ እና በሁሉም ስራተኛ የታወቀ ነው?			✓	
9.	በድርጅቱ እንደ የደንበኞችን እርካታ ፣ የቁሳቁስ አቅርቦት ፣ የታክስ መጠን ፣ የምንዛሬ ተመን ፣ የፖለቲካ / የሕግ ችግሮች የመሳሰሉ የውጫዊ ችግሮች በሚያጋጥሙ ወቅት ችግሮቹ በሠራተኛ የስራ አፈፃፀም ላይ ተጽዕኖ ይፈጥራሉ?			✓	

APPENDICES 4

Company data sample

1. Monthly production report sample

2.የጥቅምት ወር ሐዳር ፪፻፲፭

References Mailings Review View Tell me

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2. ዝርዝር የምርት ስራ ሪፖርት:-

3.1. በጥቅምት ወር በከፊል ተጠናቅቀው ከቁጥር አንድ ፋብሪካ (አዲሱ ሳይት) ወደ ቁጥር ሁለት ፋብሪካ የተዘዋወሩ ተሳቢዎች በየሳምንቱ

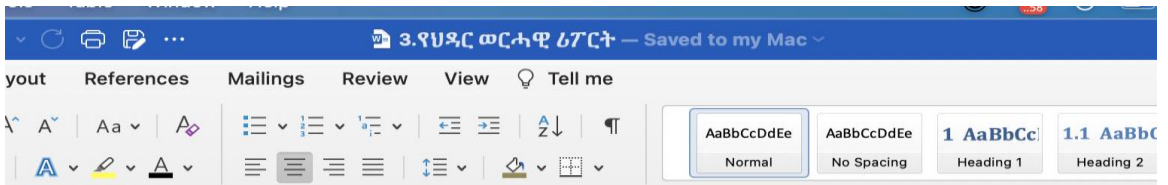
ተ.ቁ	የምርት ዓይነት	የምርት ብዛት	የምርት መለያ ቁጥር	መግለጫ
01	ባለ ሰዓት አክሲል የደረቅ ተሳቢ	16	1172 1173 1174 1175 1176 1177 1178 1180 1181 1185 1186 1188 1189 1190 1191 1193	
02	ባለ ሰዓት አክሲል የፈሳሽ ተሳቢ	03	1182 1183 1184	

3. በወሩ የተሰሩ እና የባከኑ አጠቃላይ ሰዓቶች:-

3.1 በወሩ የተሰሩ አጠቃላይ ሰዓቶች

ተ.ቁ	የስራ ክፍለ ግዜ	የተሰሩ ሰዓታት
01	በዋናው የስራ ሰዓት	17688
02	የምሽት ትርፍ ሰዓት	649
03	የእሁድ ትርፍ ሰዓት	844:30

Focus



3.1.5. የህዳር ወር የአምስቱ ሳምንታት በአንድ ሰንጠረዥ (01/03/2009 - 30/03/2009)

ተ.ቁ	የምርት ዓይነት	የምርት ብዛት	የምርት መለያ ቁጥር	መግለጫ
01	ባለ ሰዓት አክሲድ የደረቅ ተሳቢ	44	891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908 ,909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 932 , 933 ,934 ,935	
02	ባለ ሰዓት አክሲድ የፈሳሽ ተሳቢ	01	931	

3.2. የማተርያል ፕሪፓራሽን እና የአክሲድ ማኑፋክቸሪንግ ስታቲስ

3.2.1. የአሰራራላተኛው ባቻ

2. Employee evaluation sample

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1	Company Name N.A METAL INDUSTRY & ENGINEERING						Document No	
2	NAMIE						OF/NAMIE/6.2.1.	
3	Rev isio	Document Title:- የሰራተኛ መገምገሚያ ቅጽ					Page No. 1 of 1	
4	የሰራተኛው ስም						ቀን :-	
5	የሰራተኛው አድራሻ			የገምገማው ጊዜ ከ			አስከ	
6	የሰራተኛው ክፍል							
7	ተ.ቁ	የመገምገሚያው መስፈርት			አጭግ በጣም ጥሩ ነጥብ	በጣም ጥሩ ነጥብ	ጥሩ ነጥብ	መጠነኛ ነጥብ
8	1	በሰራተኛው በሰዓት መውጣት እና መግባት						
9	2	የሰራተኛውን በአገልግሎት መጠበቅ						
10	3	በሰራተኛው ላይ መገኘት						
11	4	የሰራተኛውን መሥሪያ ቤቅ በአገልግሎት መያዝና መጠቀም						
12	5	የሰራተኛው አካባቢ እና መሥሪያ ቤቅን በገጽቀው መያዝ						
13	6	የምርት ጥራት ለማረጋገጥ ያለውን አገልግሎት ለመስጠት						
14	7	አዲስ ነገር የመፍጠር ችሎታ (Creativity)						
15	8	የሰራተኛውን እና ምርታማነት						
16	9	የሰራተኛው						
17	10	የልዩ የገንዘብ እና የገንዘብ አገልግሎት ለመስጠት						
18	11	ከሰራተኛው ጋር ጋር ያለው ግንኙነት እና ስራውን በጊዜ የመስራት ችሎታ						
19	12	የሰራተኛውን ማክበር እና የሰራተኛውን ስራ ለማረጋገጥ						
20	13	የሰራተኛውን ስራ ለማረጋገጥ የሚያስፈልጉትን አገልግሎት ለመስጠት						
21	14	በሰራተኛው ላይ የሚገኘው ፀባይ/ባህሪ						
22	15	ኃላፊነትን መውጣት						
23	16	የድርጅቱን መሥሪያ ቤቅ ለማረጋገጥ						
24	ጽምር						ጽምር	
25							ጠቅላላ ጽምር ከ100	
26	በአጠቃላይ ውጤቱ ላይ የተሰጠ የውሳኔ ሀሳብ :-							
27								
28								
29								
30	ገምገማዎች :-							
31	ሱፐርቫይዘር:-			ፊርማ:-				
32	ምርት ተቀጣጣሪ			ፊርማ:-				
33	ምርት አስተባባሪ			ፊርማ:-				
34	ምርት ክፍል መሀንዲስ			ፊርማ:-				
35	ምርት ክፍል ኃላፊ			ፊርማ:-				
36								
37	90 በጣም ከፍተኛ	75-89 ከፍተኛ	65-74 መካከለኛ	50-64 መጠነኛ	50	ዘቅተኛ		
38	ስም:-	የሰራተኛው ኃላፊነት:-	ቀን			ፊርማ		
39	Name	Title	Date			sign.		

Sheet1 evaluation car information +

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የሰራተኞች ግምገማ																					
የመገምገምያ መስፈርቶች																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	ድምር	%			
	5	5	5	4	4	5	4	5	5	5	5	5	4	5	5	5	76	95.00			
	5	5	5	4	4	5	5	5	4	4	4	5	4	4	5	5	73	91.25			
	5	5	5	4	4	5	4	5	4	4	4	5	4	5	5	5	73	91.25			
	5	5	5	4	4	4	4	5	4	4	5	5	4	5	5	5	73	91.25			
	5	5	5	4	4	4	4	4	4	4	5	5	4	5	5	5	72	90.00			
	5	5	4	5	4	4	4	5	4	4	4	4	4	4	5	5	70	87.50			
	3	5	5	4	3	4	4	5	4	4	4	5	4	5	5	4	68	85.00			
	5	5	5	5	4	4	4	5	4	4	5	5	5	5	5	4	74	92.50			
	5	5	5	4	4	4	4	5	4	4	4	5	4	5	5	5	72	90.00			
	5	5	5	4	4	4	4	4	4	4	4	5	4	5	5	5	71	88.75			
	4	5	5	5	3	4	4	5	4	4	5	5	4	5	5	5	72	90.00			
	3	5	5	5	3	4	4	4	4	4	5	5	4	5	4	4	68	85.00			
	4	4	5	4	4	4	4	5	3	3	5	5	4	5	5	4	68	85.00			
	3	4	4	4	4	4	4	4	4	4	5	4	5	4	4	4	65	81.25			
	4	5	5	4	4	4	5	5	4	4	5	5	4	5	5	5	73	91.25			
	3	4	4	4	3	4	4	4	4	4	5	5	4	5	5	4	66	82.50			
	5	4	4	4	3	4	4	4	4	4	5	5	5	5	4	4	68	85.00			
	3	5	5	5	3	4	4	5	4	4	4	5	5	4	5	4	69	86.25			
	3	5	5	4	4	4	4	4	3	3	5	5	4	5	4	4	66	82.50			
	3	4	4	4	4	4	4	5	3	3	5	5	4	5	4	4	65	81.25			
	4	5	5	4	3	4	4	5	5	5	5	5	4	5	5	5	73	91.25			
	4	4	5	4	3	4	4	4	4	4	4	4	4	3	4	4	63	78.75			
	4	4	3	4	3	4	4	4	3	3	5	5	4	5	4	4	63	78.75			
	4	4	4	3	4	4	4	4	3	3	5	5	4	5	4	4	64	80.00			
	4	4	5	3	4	4	4	4	2	2	4	5	4	5	3	4	61	76.25			
	4	3	4	4	3	4	4	3	3	3	5	5	5	5	3	4	62	77.50			
	4	4	4	4	3	4	4	5	4	4	5	4	4	4	5	3	65	81.25			
	4	2	2	3	5	4	4	3	4	4	4	5	4	4	4	3	59	73.75			
	4	3	2	4	4	3	4	3	3	3	4	4	4	3	3	3	54	67.50			
	5	4	5	4	4	4	4	4	4	4	5	5	4	5	4	5	70	87.50			
	4	3	5	3	3	4	4	3	3	3	5	5	4	5	4	4	62	77.50			
	4	4	5	3	3	4	4	4	4	4	5	5	4	5	4	4	66	82.50			
	5	5	5	3	4	4	4	4	4	4	4	5	4	5	5	5	70	87.50			
	4	4	4	3	4	4	4	4	4	4	5	5	4	5	4	4	66	82.50			
	4	4	4	4	3	4	4	4	4	4	4	5	4	5	4	4	65	81.25			
	4	4	4	3	4	4	4	4	4	4	5	5	4	5	4	4	66	82.50			
	4	4	5	4	3	4	4	4	3	3	4	5	4	4	4	4	63	78.75			

forman supervisor J-Engineers safety officer +