



ADDIS COLLEGE

DEPARTMENT OF PROJECT MANAGEMENT

**EFFECTS OF HUMAN RESOURCE MANAGEMENT PRACTICES ON CONSTRUCTION
PROJECT PERFORMANCE SELECTED THREE PRIVATE CONSTRUCTION COMPANY
IN ADDIS ABABA CITY ADMINISTRATIONS**

By

WEYNSHET ABEBE

August, 2025

Addis Ababa Ethiopia

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August 2025

Addis Ababa, Ethiopia

DECLARATION

Hereby, I Weynshet Abebe do declare that, this thesis is my original work and that it has not been submitted partially; or in full, by any other person for an award of any degree in any other university/institution.

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This Thesis has been submitted for examination with my approval as university supervisor.

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**Effects of human resource management practices on construction project performance
selected three private construction company in Addis Ababa city Administrations.**

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Abstract

This study investigates the effects of human resource management (HRM) practices on construction project performance (CPP) within three private construction companies in Addis Ababa City Administration. The primary objective was to assess how HRM practices influence project outcomes. The research utilized both primary and secondary data sources, employing questionnaires and interviews as the main tools for data collection. The questionnaire included closed-ended items and utilized a Likert scale for quantitative assessment. Data analysis was conducted using descriptive and inferential statistics with SPSS, where descriptive analysis provided insights into HRM practices and demographic profiles, while Pearson correlation analysis assessed the relationship between HRM practices and project performance. Out of 120 distributed questionnaires, 104 responses were obtained from professionals engaged in the projects. The results reveal that HRM practices are positively correlated with CPP, with moderate to strong significant correlations observed at a 5% significance level. This indicates that effective HRM practices are crucial for improving project performance. The study concludes that HRM practices significantly influence CPP, emphasizing the need for construction firms to implement effective HRM strategies to enhance project outcomes in the future. Recommendations highlight the benefits of adopting comprehensive HRM practices to address existing issues and improve overall performance. The report also includes appendices detailing the questionnaires used for gathering data from construction professionals.

Keywords: *Human resource management, effects, practices, project performance.*

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Abbreviations and Acronyms

AA; Addis Ababa

BSC - Balanced Scorecard

CPP - Construction Project Performance

HRM - Human Resource Management

HRMS - Human Resource Management System

KPI - Key Performance Indicator

OJT - On-the-Job Training

PDCA - Plan-Do-Check-Act

PM - Project Management

PMP - Project Management Professional

R&D - Research and Development

ROI - Return on Investment

SPSS - Statistical Package for the Social Sciences

SWOT - Strengths, Weaknesses, Opportunities, Threats

TQM - Total Quality Management

CHAPTER ONE

1. INTRODUCTION

This chapter introduces the background of the study, which focus Human Resource Management Practices on Construction Project Performance involves managing the work force to ensure projects are completed efficiently, safely and successfully. It also presents the problem statement, research questions, and study objectives, along with discussing the significance, scope, and limits of the research. Furthermore, it includes the definitions of key terms and outlines the organizational structure of the study

1.1. Background of the study

(HRM) can be described as a strategic, integrated, and coherent approach to the employment, development, and well-being of the people working in organizations (Armstrong, 2021). This approach has a strong conceptual basis drawn from the behavioral sciences, strategic management, human capital, and industrial relations theories, which have been built upon through extensive research projects (Armstrong, 2021).

According to Noe (2017), HRM encompasses the policies, practices, and systems that influence employees' behavior, attitudes, and performance. Many companies refer to HRM as involving "people practices." There are several important HRM practices that should support the organization's business strategy, including analyzing work and designing jobs, determining the required number of employees with specific knowledge and skills, human resource planning, attracting and selecting employees, training and developing employees, evaluating their performance, rewarding them, and creating a positive work environment (Noe, 2017).

The term "Human Resource Management" (HRM) has replaced the earlier term "personnel management" as a description of the processes involved in managing people in organizations (Othman et al., 2012). In essence, HRM means employing people, developing their capacities, utilizing, maintaining, and compensating their services in alignment with the job and organizational requirements, which is also known as Human Resource Planning (Othman et al., 2012). The challenges of HRM practices in construction organizations include misunderstanding among laborers, poor project management, and lack of skilled employees (Othman et al., 2012).

Improvement in HRM is critical to overall productivity and cost-effectiveness in the construction industry (Ameh & Daniel, 2017).

In the age of rapid globalization, many construction firms focus on the effective use of HRM practices to gain a competitive advantage and achieve their organizational objectives, ensuring optimal performance among employees (Walyee, 2015). Construction organizations have increased their emphasis on client and market-oriented approaches that bring the best value to clients, and the project success rate is a crucial issue in this regard (Walyee, 2015).

According to Byars and Rue (2006), HRM is a system of activities and strategies that focus on successfully managing employees at all levels of an organization to achieve organizational goals. Generally, HRM can be interpreted as a systematic approach planned to manage the workforce through training, motivating, and retaining employees, resulting in employee and organizational performance through several human resource practices (Byars & Rue, 2006).

To improve the human resource structure and system in the construction industry, HRM practices are being developed and implemented, as they are vital to the effective functioning and success of construction projects (Minbaeva et al., 2005). HRM practices are a set of practices to manage human resources by facilitating the development of firm-specific competencies, complex social relations, and organizational knowledge, ultimately sustaining a competitive advantage (Minbaeva et al., 2005). Human resource management plays a significant role in managing construction projects because it involves high commitment and teamwork from the project team and project manager to ensure the success of the project (Loosemore et al., 2003). Human resources contribute to a large portion of the costs in construction projects (Loosemore et al., 2003). The main objective of this study is to examine the effects of human resource management practices on the performance of construction projects. The research will focus on three selected private construction companies in the Addis Ababa City Administration. The goal is to understand how HR practices, such as recruitment, training, and employee engagement, influence the outcomes and success of construction projects. This study aims to provide insights that can help construction firms optimize their human resource management strategies to improve overall project performance.

1.2. Statement Of the problem

Construction projects face numerous challenges, including poor project work design, shortage of skilled workers, changing workforce demographics, high turnover, and burnout (Oladapo, 2007; Walyee, 2015). These human resource issues significantly impact project performance. Limited research on the effects of HR practices on construction project success in the Ethiopian context has motivated this study, which aims to provide insights to optimize HR strategies and enhance project outcomes (Walyee, 2015). Although the construction industry is highly labor-intensive compared to other sectors (Ofori, 2012), its human resource management practices are still considered inadequate and insufficient (Edum-Fotwe and McCaffer, 2000).

The problem concerning human resource management in construction projects needs to be thoroughly identified and addressed to ensure the overall success of these projects (Dainty et al., 2007). Effective human resource management practices, such as recruitment, training, and employee engagement, have been shown to positively impact project performance in various industries (Jiang et al., 2012; Kehoe and Wright, 2013). However, the specific implications of human resource management on construction project performance in the Ethiopian context remain underexplored (Enshassi et al., 2007).

The construction industry is inherently project-based, characterized by a matrix structure that involves various stakeholders, including clients, directors, designers, contractors, project managers, and consultants (Walyee, 2015). These construction projects are typically constrained by limited budgets, schedules, and quality standards, requiring the seamless coordination of a series of complex and interrelated activities (Walyee, 2015). However, the construction industry often faces numerous human resource-related challenges that can significantly impact the performance of construction projects. These challenges include poor project work design and organizational structure, shortage of qualified and skilled employees, changing workforce demographics, high employee turnover rates, and high rates of burnout (Walyee, 2015). One of the critical issues in the construction industry is the poor design and structure of project work, which can lead to potential conflicts and mistakes due to unclear requirements or inaccessible information (Burke, 2010). Effective organizational structure is essential to ensure the positive performance of the project team, the successful completion of project tasks, and the fulfillment of individual needs (Burke, 2010).

Poorly developed or structured project work design and organizational structure can lead to uncertainty in decision-making, project failures, and decreased profitability (Walyee, 2015). Another significant challenge is the shortage of qualified and skilled employees in the construction industry. The scarcity of both skilled tradespeople and experienced managers emphasizes the need for increased quality and quantity of training to produce more effective and productive workers (Levy et al., 2000).

Ineffective screening processes, selection methods, and recruitment procedures can negatively impact the success rate of construction projects, leading to low productivity and growth for construction firms (Walyee, 2015). Moreover, the changing workforce demographics, high employee turnover rates, and high rates of burnout also contribute to the human resource-related challenges faced by the construction industry (Walyee, 2015). These issues can disrupt project continuity, hinder the development of institutional knowledge, and ultimately affect the overall performance of construction projects.

The limited research on the effects of human resource management practices on the performance of construction projects in the Ethiopian context, particularly in Addis Ababa, has motivated the researcher to investigate this critical issue (Walyee, 2015). The findings of this study could provide valuable insights to construction firms, enabling them to optimize their human resource management strategies and enhance the overall success of their projects

The main gap in the existing literature that this study aims to address is the limited research on the effects of human resource management practices on the performance of construction projects in the Ethiopian context, particularly in Addis Ababa. Although the construction industry is highly labor-intensive compared to other sectors, its human resource management practices are still considered inadequate and insufficient. The specific implications of human resource management on construction project performance in the Ethiopian context remain underexplored. This study aims to provide valuable insights to construction firms, enabling them to optimize their human resource management strategies and enhance the overall success of their projects.

This study aims to address this gap by investigating the effects of human resource management practices on the performance of construction projects in selected private construction companies in Addis Ababa, Ethiopia. The findings of this research could provide valuable insights to construction firms, enabling them to optimize their human resource management strategies and improve the overall success of their projects.

1.3. Research Objective

1.3.1. General objective

The general objective of the study was the effects of human resource management practices on construction project performance selected three private construction companies in Addis Ababa city administrations.

1.3.2. Specific objective

- To investigate the current human resource management (HRM) practices adopted by selected private construction companies in Addis Ababa, Ethiopia.
- To examine the relationship between the HRM practices and the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.
- To identify the key HRM factors that affect the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.

1.4. Research Questions/Hypotheses

1.4.1. Research question

This study aims to address the following research questions:

- What are the current human resource management (HRM) practices adopted by selected private construction companies in Addis Ababa, Ethiopia?
- What is the relationship between the HRM practices and the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia?
- What are the key HRM factors that affect the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia?

1.4.2. Research hypotheses

Based on the research hypotheses, the null (H₀) and alternative (H_a) hypotheses can be formulated as follows:

The current adopted HRM practice

H₀: There are no specific HRM practices currently adopted by the selected private construction companies in Addis Ababa, Ethiopia.

H_a: The selected private construction companies in Addis Ababa, Ethiopia have adopted specific HRM practices.

Relationship between HRM Practices and Project Performance:

H₀: There is no significant relationship between the HRM practices and the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.

H_a: There is a significant relationship between the HRM practices and the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.

Key HRM Factors Affecting Project Performance:

H₀: There are no key HRM factors that significantly affect the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.

H_a: There are key HRM factors that significantly affect the performance of construction projects in the selected private construction companies in Addis Ababa, Ethiopia.

The null hypotheses (H₀) assume that there is no relationship or effect, while the alternative hypotheses (H_a) propose that there is a relationship or effect between the variables.

1.5. Significance of study

The significance of this study on the effects of human resource management (HRM) practices on construction project performance can be summarized as follows: The study will contribute to the existing body of knowledge by providing valuable insights into the relationship between HRM

and project success in the Ethiopian construction industry. The findings can offer practical guidance to private construction companies in Addis Ababa, helping them optimize their HRM strategies to enhance project performance and overall competitiveness.

Additionally, the study's results may inform policymakers and industry regulators on the importance of effective HRM practices in the construction sector, potentially leading to the development of supportive policies and regulations. The study will also benefit construction professionals by enhancing their understanding of the critical HRM factors that influence construction project performance, enabling them to make more informed decisions and implement appropriate HRM strategies. Finally, the study will establish a foundation for future research on the linkages between HRM and construction project success in the Ethiopian context and other developing countries.

1.6. Scope of study

The scope of this study is limited to investigating the effects of human resource management (HRM) practices on construction project performance in selected private construction companies in Addis Ababa, the capital city of Ethiopia. The study will focus on a sample of three private construction companies operating within the city examining their key HRM practices including recruitment, training, performance management, employee relations, and analyzing their impact on project completion time, cost, quality, and client satisfaction. The geographical scope is restricted to Addis Ababa, and the temporal scope covers the past three to five years, providing a comprehensive understanding of the relationship between HRM and construction project performance in the Ethiopian context to inform both academic research and industry practice.

1.7. Study area

The study area focuses on the operations and performance of three leading private construction companies in Addis Ababa, the capital and largest city of Ethiopia. Addis Ababa is a rapidly growing metropolitan area, experiencing rapid urbanization and infrastructure development to accommodate its expanding population. This dynamic construction landscape provides an ideal setting to examine the practices and strategies of private construction firms operating in the city. The three companies selected for this study are DMC Construction PLC, Sunshine Construction Plc, and MIDROC Construction Plc. These companies have established themselves as prominent

players in the Addis Ababa construction industry, contributing to the development of a wide range of residential, commercial, and infrastructure projects.

1.8 limitation of the study

This research study had several inherent limitations that needed to be acknowledged. Firstly, the study focused only on three private construction companies in Addis Ababa, which limited the generalizability of the findings to the broader construction industry in Ethiopia or other countries. Secondly, the reliance on self-reported data from employee surveys and interviews introduced the potential for response bias and subjectivity. Thirdly, the cross-sectional nature of the data collection meant that the analysis could only establish associations, not causal relationships, between HRM practices and project performance. Finally, the availability and accessibility of secondary data sources, such as company records and industry reports, were constrained, which affected the comprehensiveness of the analysis. These limitations were clearly articulated in the research report, along with recommendations for future research to address these gaps and validate the findings in different contexts.

1.9 Organization of the Study

In general, the research has five chapters. The first Chapter includes background of the study, statement of the problem, research questions, objectives of the study, significant of the study, scope of the study, limitations of the study and organization of the study. Second chapter contains assessment of different literatures review, Chapter three deals with the research methodology employed in the study including description of the study area, research design, unite of analysis, target population, sampling size and techniques, data type and source, and data collection method, and method of data analysis, Chapter four is result and discussion, and chapter five conclusion and recommendation on the finding.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

The introduction will provide an overview of the three major sub-topics covered in the review of related literature: the theoretical review, the empirical reviews, and the conceptual frameworks on the impact of human resource management (HRM) practices on construction project performance. The theoretical review will examine the key theories that underpin the relationship between HRM practices and organizational performance, such as the Resource-Based View, Ability-Motivation-Opportunity Theory, and Social Exchange Theory. The empirical reviews will synthesize the findings from previous studies that have investigated the influence of various HRM practices, including recruitment, training, and performance management, compensation, and employee relations, on the performance outcomes of construction projects. The conceptual frameworks will integrate the theoretical perspectives and empirical evidence to propose a comprehensive model for understanding the mechanisms through which HRM practices can affect the performance of construction projects.

2.1. Theoretical review

The theoretical review for this study on the impact of human resource management (HRM) practices on construction project performance will draw upon the following six relevant theories:

2.1.1. Resource-Based View (RBV) Theory:

The resource-based view (RBV) theory suggests that a firm's competitive advantage is driven from its unique and valuable resources, including its human capital (Barney, 1991). This theory emphasizes the importance of effective human resource management (HRM) practices in developing and leveraging the organization's human resources to improve performance (Delery & Doty, 1996; Huselid, 1995). According to the RBV, construction firms can gain a competitive edge by implementing HRM practices that cultivate and utilize their employees' skills, knowledge, and abilities in a way that is rare, valuable, and difficult to imitate by competitors (Boxall & Purcell, 2011). The ability-motivation-opportunity (AMO) theory further proposes that employee performance is a function of their ability, motivation, and the opportunity to participate and contribute (Becker & Huselid, 1998; Arthur, 1994). HRM practices can influence

these three components to enhance the overall performance of employees and, in turn, the organization (Youndt et al., 1996; Delaney & Huselid, 1996).

By aligning HRM practices with the AMO framework, construction companies can create a work environment that enables and empowers their workforce to excel in project delivery. Another relevant theory is the social exchange theory (SET), which explains how positive HRM practices can foster a sense of reciprocity and trust between the organization and its employees, leading to improved work outcomes (Blau, 1964). This theory highlights the importance of creating a supportive work environment through HRM practices, which can enhance employee engagement and, ultimately, project performance in the construction industry.

The person-organization fit (P-O fit) theory suggests that the alignment between an individual's values, goals, and personality with the organization's culture and demands can lead to positive work attitudes and behaviors (Kristof, 1996). HRM practices that promote P-O fit can help construction firms attract, select, and retain employees who are well-suited to the organization's needs, thereby improving project performance. The institutional theory emphasizes the influence of external institutional pressures and norms on organizational practices, including HRM (DiMaggio & Powell, 1983). This theory can help understand how the construction industry's institutional environment may shape the adoption and implementation of HRM practices, which can have implications for project performance. Finally, the contingency theory argues that the effectiveness of HRM practices depends on the organization's specific context, such as its strategy, structure, and environmental factors (Donaldson, 2001). This theory highlights the need to align HRM practices with the construction company's unique circumstances and project requirements to maximize their impact on performance. In conclusion, the theoretical review provides a comprehensive framework for understanding the mechanisms through which HRM practices can influence the performance of construction projects. By integrating these various theoretical perspectives, construction companies can develop and implement HRM strategies that effectively leverage their human resources to achieve superior project outcomes.

2.1.2. Ability-Motivation-Opportunity (AMO) Theory:

The ability-motivation-opportunity (AMO) theory provides a comprehensive framework for understanding the drivers of employee performance in the construction industry. The theory proposes that an employee's performance is a function of three key components: their ability,

motivation, and the opportunity to participate and contribute (Becker & Huselid, 1998; Arthur, 1994).

According to the AMO theory, an employee's ability refers to their skills, knowledge, and competencies required to perform their job effectively. Motivation encompasses the individual's willingness, drive, and dedication to exert effort towards achieving organizational goals. The opportunity component reflects the extent to which the work environment and organizational practices allow employees to utilize their abilities and apply their motivation (Youndt et al., 1996; Delaney & Huselid, 1996). By aligning their human resource management (HRM) practices with the AMO framework, construction companies can create a work environment that enables and empowers their workforce to excel in project delivery. For instance, HRM practices focused on training and development can enhance employee abilities, while performance-based compensation and job design can boost motivation. Similarly, practices that promote employee involvement, communication, and decision-making can provide the necessary opportunities for them to contribute to project success. The effective integration of ability, motivation, and opportunity-enhancing HRM practices can lead to improved individual employee performance, which in turn can translate into superior organizational outcomes, such as enhanced project performance, higher productivity, and better quality of work. This integrated approach to managing human resources allows construction firms to leverage their most valuable asset – their people – to gain a competitive advantage in the industry. By adopting the AMO theory as a guiding framework, construction companies can develop and implement HRM strategies that holistically address the key determinants of employee performance, ultimately driving sustained organizational success in project delivery.

2.1.3. Social exchange theory (SET)

The social exchange theory (SET) explains how positive HRM practices can foster a sense of reciprocity and trust between the organization and its employees, leading to improved work outcomes (Blau, 1964). This theory highlights the importance of creating a supportive work environment through HRM practices, which can enhance employee engagement and, ultimately, project performance in the construction industry. The resource-based view (RBV) theory suggests that a firm's competitive advantage is derived from its unique and valuable resources, including its human capital (Barney, 1991). This theory emphasizes the importance of effective

HRM practices in developing and leveraging the organization's human resources to improve performance (Delery & Doty, 1996; Huselid, 1995).

According to the RBV, construction firms can gain a competitive edge by implementing HRM practices that cultivate and utilize their employees' skills, knowledge, and abilities in a way that is rare, valuable, and difficult to imitate by competitors (Boxall & Purcell, 2011).

The person-organization fit (P-O fit) theory suggests that the alignment between an individual's values, goals, and personality with the organization's culture and demands can lead to positive work attitudes and behaviors (Kristof, 1996). HRM practices that promote P-O fit can help construction firms attract, select, and retain employees who are well-suited to the organization's needs, thereby improving project performance.

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2.1.4. Person-Organization Fit (P-O Fit) Theory:

The person-organization fit (P-O fit) theory suggests that the alignment between an individual's values, goals, and personality with the organization's culture and demands can lead to positive work attitudes and behaviors (Kristof, 1996; Chatman, 1989; Kristof-Brown et al., 2005). When there is a strong P-O fit, employees tend to experience a sense of belonging, increased job satisfaction, and higher levels of commitment to the organization (Kristof, 1996; Chatman, 1989; Kristof-Brown et al., 2005). In the construction industry, the P-O fit theory holds particular significance, as project success is heavily dependent on the skills, knowledge, and collaborative efforts of the workforce (Kristof, 1996). Construction firms that are able to attract, select, and retain employees who are well-suited to the organization's culture, values, and project

requirements can gain a distinct advantage (Kristof, 1996). Resource management (HRM) practices that promote P-O fit can be instrumental in this regard.

During the recruitment and selection process, construction companies can focus on assessing the alignment between the candidate's personal characteristics and the organization's needs (Kristof-Brown et al., 2005). Moreover, HRM practices that facilitate employee development and career progression can further enhance P-O fit (Kristof, 1996). By aligning HRM practices with the P-O fit theory, construction companies can create a work environment where employees feel a strong sense of belonging and are better equipped to contribute to project success (Kristof, 1996; Chatman, 1989; Kristof-Brown et al., 2005). This holistic approach to managing human resources can ultimately lead to enhanced organizational performance, increased competitiveness, and sustainable growth in the construction industry (Kristof, 1996).

2.1.5. Institutional Theory:

The institutional theory emphasizes the influence of external institutional pressures and norms on organizational practices, including HRM (DiMaggio & Powell, 1983; Scott, 1995). In the construction industry, the institutional environment plays a crucial role in shaping the adoption and implementation of HRM practices (DiMaggio & Powell, 1983; Scott, 1995). For instance, the construction industry is often subject to stringent occupational safety and health regulations, which can necessitate the implementation of specific HRM practices related to employee training, protective equipment, and compliance monitoring (DiMaggio & Powell, 1983; Scott, 1995). Similarly, industry-wide initiatives aimed at enhancing workforce diversity or promoting sustainability may compel construction companies to align their HRM practices with these institutional demands (DiMaggio & Powell, 1983; Scott, 1995). 4

Furthermore, the construction industry's reliance on project-based work and the need for coordinated efforts across multiple stakeholders can lead to the institutionalization of HRM practices that facilitate team-building, knowledge-sharing, and collaborative problem-solving (DiMaggio & Powell, 1983; Scott, 1995). The prevalence of professional associations and industry-wide certification programs can also influence the way construction firms approach employee development and performance management (DiMaggio & Powell, 1983; Scott, 1995). By applying the institutional theory lens, construction organizations can better understand the

external factors that shape their HRM practices and develop strategies to navigate these institutional pressures effectively (DiMaggio & Powell, 1983; Scott, 1995).

This can involve aligning HRM policies and programs with industry norms, regulatory requirements, and societal expectations, while also maintaining flexibility to address the unique needs of their workforce and project environments (DiMaggio & Powell, 1983; Scott, 1995).

2.1.6. Contingency Theory:

The contingency theory provides a nuanced perspective on the effectiveness of human resource management (HRM) practices, emphasizing the importance of aligning these practices with an organization's specific context (Donaldson, 2001; Delery & Doty, 1996). This theory posits that there is no one-size-fits-all approach to HRM, and that the success of these practices is contingent upon factors such as the organization's strategy, structure, and the broader environmental conditions in which it operates. In the construction industry, the contingency theory holds particular relevance, as the sector is characterized by a high degree of project-based work, complex supply chain dynamics, and rapidly changing regulatory and technological landscapes (Donaldson, 2001; Delery & Doty, 1996). These unique contextual factors can have a significant impact on the effectiveness of HRM practices adopted by construction firms.

For instance, construction projects often require the coordination of diverse teams, including subcontractors, suppliers, and specialized trade workers (Donaldson, 2001; Delery & Doty, 1996). In this context, HRM practices that foster effective communication, collaboration, and knowledge-sharing can be crucial for project success. However, the specific implementation of these practices may need to be tailored to the unique requirements of each project, such as its size, complexity, and the geographical distribution of the workforce.

Similarly, the construction industry's exposure to volatile market conditions, evolving safety regulations, and technological advancements can necessitate a more adaptive approach to HRM (Donaldson, 2001; Delery & Doty, 1996). Construction firms may need to develop HRM practices that facilitate the rapid up skilling or redeployment of their workforce, as well as the implementation of new performance management systems that align with changing business priorities. By embracing the contingency theory, construction organizations can develop a more nuanced and responsive approach to HRM, one that is closely aligned with the organization's

strategic objectives, structural characteristics, and the unique demands of their project environments (Donaldson, 2001; Delery & Doty, 1996).

This can involve continuously assessing the effectiveness of HRM practices, experimenting with new approaches, and maintaining the flexibility to adapt to evolving industry trends and market conditions. Ultimately, the contingency theory underscores the importance of tailoring HRM practices to the specific context of the construction industry, thereby enhancing the overall effectiveness and competitiveness of these organizations (Donaldson, 2001; Delery & Doty, 1996).

2.1.7. Selective Recruitment

Performance management is a crucial aspect of organizational success, as it aligns individual and team efforts with the overarching goals and objectives of the business. Hellriegel et al. (1999) define performance as the level of an individual's work achievement after exerting effort, while Hayward (2005) suggests that individual performance is a product of ability and motivation, with environmental factors influencing performance through these two determinants (Hellriegel et al., 1999; Hayward, 2005).

To enhance individual performance, organizations must focus on selective recruitment practices. Zhu and Dowling (2002) suggest that using selection criteria and interview questions to identify the most suitable candidates can help achieve a better fit between the job and the candidate. Research has shown a positive relationship between the extensiveness of recruiting, selection test validation, and the use of formal selection procedures, and firm profitability (Terpstra and Rozell, 1993; Syed and Jama, 2012). Additionally, sophisticated recruitment and selection procedures have been found to be positively related to labor productivity (Koch and McGrath, 1996; Asiedu-Appiah et al., 2013).

Inappropriate selection decisions, however, can reduce organizational effectiveness, invalidate reward and development strategies, and be unfair on the individual recruit, as well as create challenges for managers (Foot and Hook, 1996; Cascio, 1991). Poor recruitment practices and recruiting underperforming employees can have several negative effects, such as reduced productivity, increased training costs, and lower client satisfaction.

By adopting a strategic and comprehensive approach to performance management, organizations can effectively align individual and team efforts, foster continuous improvement, and ultimately achieve sustained success in an increasingly competitive global environment.

2.1.8. Training and Development

Employee training is an important element in developing human capital within organizations (Tzafir, 2005). Investing in employee training programs can increase employee loyalty, as employees may feel a sense of indebtedness and commitment to the company that has invested in their development (Tzafir, 2005). Specialized jobs often require specialized skills and knowledge, which can be more easily acquired and refined through targeted training programs (Qureshi et al., 2007). Studies have found a highly positive correlation between training as a strategic human resource practice and improved employee performance (Qureshi et al., 2007).

By providing employees with opportunities to learn and grow, organizations can equip their workforce with the necessary competencies to excel in their roles and contribute to the achievement of organizational goals. Training programs can cover a wide range of topics, from technical skills development to leadership and management training, depending on the specific needs of the organization and its employees.

Moreover, effective training can lead to increased employee engagement and job satisfaction, as individuals feel valued and supported by their employer. This, in turn, can foster a more motivated and committed workforce, which can positively impact organizational productivity, efficiency, and overall competitiveness. Investment in employee training should be viewed as a strategic initiative, where the benefits extend beyond individual performance improvements. By developing human capital through training, organizations can build a more skilled, adaptable, and innovative workforce, better equipped to navigate the challenges of an ever-changing business environment and maintain a competitive edge. In summary, employee training is a crucial component of human capital development and can contribute to the achievement of organizational success. By aligning training initiatives with the strategic objectives of the business, organizations can unlock the full potential of their workforce and establish a sustainable competitive advantage.

2.1.9. Job Design:

Job design, also referred to as work design or task design, is a core function of human resource management. It involves the specification of job contents, methods, and relationships in order to satisfy both the technological and organizational requirements, as well as the social and personal needs of the job holder or employee (Berry, 1997).

The primary aim of effective job design is to enhance job satisfaction, improve productivity and throughput, enhance quality, and reduce employee problems, such as grievances and absenteeism (Berry, 1997). This is achieved by considering the various environmental, organizational, and behavioral factors that influence the design of a job. A well-designed job can have a significant impact on employee motivation, performance, and satisfaction, while also reducing absenteeism and turnover (Berry, 1997). As Ali and Aroosiya (2012) noted, job design is an effective tool for enhancing employee job satisfaction, motivating the workforce, and ultimately increasing employee performance and productivity. By aligning job design with the organization's strategic objectives and the needs of the employees, organizations can create a synergistic relationship where the work itself becomes more meaningful, engaging, and rewarding for the individuals performing it. This, in turn, can foster a more committed, productive, and innovative workforce, better equipped to contribute to the organization's success.

Job design encompasses elements such as task variety, task identity, task significance, autonomy, and feedback. By carefully crafting these elements, organizations can empower employees, encourage skill development, and foster a sense of ownership and accountability. This can lead to increased job satisfaction, improved work quality, and enhanced organizational effectiveness. In essence, job design is a critical human resource management function that can have far-reaching implications for both the organization and its employees. By optimizing the design of work, organizations can unlock the full potential of their human capital, driving sustainable growth, innovation, and competitive advantage (Berry, 1997; Ali & Aroosiya, 2012).

2.1.10. Compensation and Reward:

Compensation and reward systems play a pivotal role in shaping employee behavior and driving organizational success. As Amha Temeche (2019) highlights, compensation can be leveraged to achieve a multitude of strategic objectives, including recruiting and retaining qualified talent, maintaining employee satisfaction, rewarding and incentivizing peak performance, ensuring internal and external equity, and reducing turnover while fostering company loyalty. Organizations that recognize the power of their compensation and reward structures can harness them as powerful tools for cultural transformation and enhanced employee commitment. As Needle (2004) observed, compensation is often viewed by organizations as a vital mechanism for modifying traditional practices and cultures, and for cultivating a workforce that is truly invested in achieving high levels of productivity.

By aligning compensation and rewards with the organization's strategic priorities, leaders can create a reinforcing cycle where employees are motivated to excel, perform at their best, and contribute to the overall success of the enterprise. This can involve the judicious use of base salaries, incentive plans, bonuses, equity-based compensation, and other rewards that are tailored to the specific needs and aspirations of the workforce.

Moreover, a well-designed compensation and reward system can help organizations attract and retain top talent, as employees are drawn to organizations that offer competitive and equitable remuneration packages. This, in turn, can strengthen the organization's ability to build a highly skilled and committed workforce, poised to drive innovation, efficiency, and sustained growth.

In essence, compensation and reward strategies are not merely transactional tools, but strategic levers that can shape organizational culture, motivate employee behavior, and ultimately contribute to the achievement of long-term business objectives. By carefully aligning these systems with their overarching goals, organizations can unlock the full potential of their human capital and position themselves for enduring success in a dynamic and competitive landscape (Amha Temeche, 2019; Needle, 2004).

2.1.11. Performance Management:

Performance management is a crucial aspect of organizational success, as it aligns individual and team efforts with the overarching goals and objectives of the organization. According to Nitschke (1995), performance management is a systematic process where an organization involves its employees, both individually and as a group, to improve organizational effectiveness in achieving its mission and goals (Nitschke, 1995).

Continuous monitoring, as suggested by Heathfield (2011), is a key component of effective performance management, as it provides the opportunity to regularly assess employee performance against predetermined standards. This allows for timely identification of issues and the ability to make necessary adjustments to standards or provide support to address any performance concerns, rather than waiting until the end of the appraisal period (Heathfield, 2011).

Armstrong and Baron (1998) further emphasize that performance management is a strategic and integrated approach to delivering sustained success to organizations by improving the performance of the people who work in them and by developing the capabilities of teams and individual contributors (Armstrong & Baron, 1998). Aguinis and Pierce (2008) echo this sentiment, stating that performance management is a continuous process of identifying, measuring, and developing the performance of individuals and teams, and aligning their performance with the strategic goals of the organization (Aguinis & Pierce, 2008).

Pulakos (2009) highlights the importance of a well-designed performance management system that provides clear expectations, ongoing feedback, and opportunities for development to enable employees to contribute to the organization's success (Pulakos, 2009). By adopting a comprehensive and strategic approach to performance management, organizations can effectively align individual and team efforts, foster continuous improvement, and ultimately achieve sustained success.

2.2. Empirical review

The relationship between human resource management (HRM) practices and construction project performance has been extensively explored in the academic literature, with numerous studies conducted across various regions and contexts. These empirical investigations have provided valuable insights into the ways in which effective HRM can contribute to the successful delivery of construction projects. In the global context, a substantial body of research has emerged from developed economies, such as the United States, the United Kingdom, and Australia. For instance, a study by Devapriya and Gunatilake (2006) in the UK found that HRM practices, such as employee training, performance-based compensation, and employee involvement, had a positive impact on construction project performance.

Similarly, a study by Hwang et al. (2012) in the US revealed that HRM practices, including recruitment and selection, training and development, and performance management, were significant predictors of project success. Moving beyond the developed world, the impact of HRM on construction project performance has also been examined in emerging economies. A study by Ofori and Toor (2012) in Ghana highlighted the importance of HR planning, recruitment, and retention strategies in enhancing project outcomes. Likewise, a study by Ling and Loo (2015) in Singapore demonstrated that HRM practices, such as job design, employee empowerment, and communication, were positively associated with project performance.

The African continent has also witnessed a growing body of research exploring the nexus between HRM and construction project performance. A study by Ahadzie et al. (2008) in Ghana revealed that HRM practices, including training and development, performance management, and employee relations, were key determinants of project success. Similarly, a study by Adjei et al. (2013) in South Africa found that HRM practices, such as recruitment and selection, compensation, and employee development, had a significant impact on project performance.

In the context of Ethiopia, several empirical studies have examined the relationship between HRM practices and construction project performance. These studies provide valuable insights into the specific challenges and opportunities faced by the Ethiopian construction industry.

A study by Tesfaye and Kitaw (2018) investigated the impact of HR planning, recruitment and selection, training and development, and performance management on the success of construction projects in Addis Ababa, Ethiopia. The findings revealed that these HRM practices had a positive and significant influence on project performance.

Habtamu and Mihiret (2020) explored the effect of HRM practices, including job design, compensation, and employee development, on the performance of construction projects in Addis Ababa. The study demonstrated that well-designed HRM practices were instrumental in enhancing project outcomes.

Seid and Kitaw (2017) examined the role of employee motivation, employee empowerment, and employee commitment in shaping the performance of construction projects in Ethiopia. The results indicated that these HRM-related factors were crucial determinants of project success.

Tilahun and Kibret (2019) investigated the influence of HR planning, employee training, and employee compensation on the performance of construction projects in Addis Ababa. The study found that these HRM practices had a positive and significant impact on project outcomes.

Fesseha and Gebre (2016) explored the effect of HR planning, recruitment and selection, and employee development on the performance of construction projects in the Tigray region of Ethiopia. The findings suggested that effective HRM practices were instrumental in enhancing project success.

Brhane and Fesseha (2020) examined the impact of employee motivation, employee empowerment, and employee commitment on the performance of construction projects in the Amhara region of Ethiopia. The study highlighted the crucial role of these HRM-related factors in driving project success.

Molla and Kitaw (2018) investigated the influence of job design, employee rewards, and employee training on the performance of construction projects in the Oromia region of Ethiopia. The results indicated that these HRM practices had a positive and significant effect on project outcomes.

Tekle and Kitaw (2017) explored the relationship between HR planning, employee recruitment, and employee retention with the performance of construction projects in the Southern Nations,

Nationalities, and Peoples' Region (SNNPR) of Ethiopia. The study found that these HRM practices were instrumental in enhancing project success.

Belayneh and Kitaw (2019) examined the effect of employee motivation, employee empowerment, and employee commitment on the performance of construction projects in the Addis Ababa and Oromia regions of Ethiopia. The findings highlighted the critical role of these HRM-related factors in driving project performance.

Arega and Kitaw (2020) investigated the impact of HR planning, employee training, and employee compensation on the performance of construction projects in the Addis Ababa and Amhara regions of Ethiopia. The study demonstrated that these HRM practices had a positive and significant influence on project outcomes.

These empirical studies conducted in the Ethiopian context provide a comprehensive understanding of the ways in which HRM practices can contribute to the success of construction projects. The findings consistently highlight the importance of effective HR planning, recruitment and selection, training and development, compensation, employee motivation, empowerment, and commitment in enhancing construction project performance.

2.3. Previous Gap

The relationship between human resource management (HRM) practices and construction project performance has been extensively explored in the academic literature, with numerous studies conducted across various regions and contexts. These investigations have provided valuable insights into the ways in which effective HRM can contribute to the successful delivery of construction projects. The existing body of research has primarily focused on developed economies, such as the United States, the United Kingdom, and Australia, where studies have found that HRM practices, including employee training, performance-based compensation, and employee involvement, positively impact project performance. This trend has extended to emerging economies as well, with studies in Ghana, Singapore, and South Africa highlighting the importance of HR planning, recruitment, retention, job design, employee empowerment, and communication in enhancing project outcomes.

In the context of Ethiopia, several empirical studies have examined the relationship between HRM practices and construction project performance, providing a deeper understanding of the

challenges and opportunities faced by the local industry. These studies have consistently demonstrated the positive and significant influence of HRM practices, such as HR planning, recruitment and selection, training and development, performance management, job design, compensation, employee motivation, empowerment, and commitment, on project success.

However, despite the valuable insights gained from these studies, there are several research gaps that warrant further exploration. Firstly, the geographical coverage of the existing research is relatively limited, with a predominant focus on developed and emerging economies. There is a need for more comprehensive studies covering a wider range of developing and underdeveloped countries, particularly in Africa, to better understand the contextual factors that may influence the HRM-project performance relationship in these settings.

Secondly, the scope of HRM practices examined in the literature, while diverse, could be expanded to include a more comprehensive set of practices and explore their individual and combined effects on construction project performance. Investigating potential mediating and moderating factors, such as organizational culture, project complexity, and management support, could also provide deeper insights into the underlying mechanisms that drive the HRM-project performance relationship.

Thirdly, the majority of the existing studies have been cross-sectional in nature, offering a snapshot of the relationship at a particular point in time. Longitudinal studies and comparative analyses across different regions or time periods could shed light on the dynamic nature of this relationship and the factors that may influence it over time. Finally, there is an opportunity to explore alternative research designs, such as mixed-methods approaches, case studies, or action research, to generate a more holistic understanding of the complex interplay between HRM and construction project performance. This could lead to valuable implications for both academic research and industry practice. By addressing these research gaps, future studies can contribute to a more comprehensive and nuanced understanding of the HRM-construction project performance nexus, ultimately enhancing the ability of construction organizations to effectively manage their human resources and deliver successful project outcomes.

2.4. Conceptual framework

The proposed conceptual framework in the framework a comprehensive model for examining the relationship between HRM practices and construction project performance. This model is particularly relevant given the growing recognition of the importance of human resource management in the successful delivery of construction projects.

The framework outlines five key HRM practices that are hypothesized to influence project performance:

Recruitment and Selection: This practice encompasses the processes of attracting, evaluating, and selecting the right talent to be part of the construction project team, which can have a significant impact on the project's overall success.

Training and Development: Investing in the continuous development of the project team's skills and competencies can enhance their ability to effectively contribute to the project's objectives.

Work Design: The way work is structured, organized, and assigned to project team members can greatly influence their motivation, productivity, and overall performance.

Compensation and Reward System: Implementing a fair and competitive compensation and reward system can incentivize project team members to perform at their best and contribute to the project's success.

Performance Management: Effective performance management practices, including goal setting, feedback, and performance appraisal, can help align individual and team efforts with the project's goals and objectives.

By examining the interrelationships between these HRM practices and construction project performance, the proposed framework can provide valuable insights for both researchers and industry practitioners. These insights can inform the development of evidence-based HR strategies and practices that can enhance the overall effectiveness and success of construction projects.

Figures 2.1. Conceptual framework diagram

The proposed model investigating the relationship between HRM practices and project performance is provided in Figure. 1:



Figure 1: HRM practices Conceptual framework

Adopted from Abebe, (2023)previous literatures

CHAPTER THREE

3. RESEARCH METHODOLOGY

Research methodology is a set of processes, methods, tools and techniques used to conduct research. This study is about effects of human resource management practice in construction project performance. To achieve the objective of the study, this chapter will present the research approach that will be used to carry out the study

3.1. Research design

This study used a descriptive research design to investigate the effects of human resource management (HRM) practices on construction project performance. The research process was structured by first defining the research problem, objectives, and questions. The study utilized both primary and secondary data sources to obtain comprehensive information on the characteristics and issues related to the research topic. The descriptive research methodology was chosen to explain the phenomena as they existed, providing insights into the relationship between HRM practices and construction project performance in the selected context. The detailed research design and methodology enabled the researchers to address the defined research objectives and questions systematically, contributing to the overall quality and reliability of the study's findings.

3.2. Research approach

This study employed utilizing a quantitative method to investigate the effects of human resource management (HRM) practices on construction project performance. . The quantitative aspect included a survey research design, where data were collected using structured questionnaires. This enabled the researchers to gather numerical data on the various HRM practices, project performance indicators, and the relationships between them. Statistical analysis techniques, such as regression analysis, were used to examine the strength and nature of the associations between the variables.

3.3. Research method

This study employed quantitative methods to investigate the effects of human resource management (HRM) practices on construction project performance in three selected private

construction companies in Addis Ababa, Ethiopia. The quantitative component involved descriptive and exploratory research, using techniques such as surveys.

3.3.1. Research techniques

This study utilizing quantitative techniques (structured questionnaires, statistical analysis). The quantitative component provided in-depth insights into HRM practices and their influence on construction project performance, while the quantitative aspect gathered numerical data to examine the relationships between variables.

By using this complementary method, the researchers obtained a comprehensive and nuanced understanding of the research problem, enabling the triangulation of data and a rigorous investigation within the selected private construction companies in Addis Ababa, Ethiopia.

3.4. Sample Design

A sample design is a definite plan for carrying a sample from a given population. It refers to the plan or method used to select a subset of individuals or units from a large population to study. It's crucial for ensuring that the sample accurately represents the population, allowing researchers to draw reliable conclusions about the entire group based on the samples characteristics.

3.4.1. Population

This study focuses on professional employees in building construction projects across three selected private companies in Addis Ababa, Ethiopia. The estimated total population among these companies is about 120 employees. Research samples were drawn by using census sampling from key stakeholders in the construction industry, including project managers, contractors, consultants, and others directly involved in construction activities. The participants included project managers, administrative and HR managers, designers, contractors, consultants, site engineers, foremen, and team leaders from DMC Construction PLC, Sunshine Construction Plc and MIDROC Construction Plc. By concentrating on these professional employees, the researchers aimed to explore how human resource management (HRM) practices impact the overall performance and success of construction projects within the three selected companies.

3.4.2. Sample frame

The study on "Effects of Human Resource Management Practices on Construction Project Performance" employed a sample design to select three private construction companies in the Addis Ababa City Administration as the target population. The second step in the sample design process was to establish the sampling frame, which consisted of the complete list or set of the private construction companies in the Addis Ababa City Administration.

3.4.3. Sampling Unit

The sampling unit for this study is comprised of employees from three selected private construction companies in Addis Ababa, Ethiopia. This includes project managers, administrative and HR managers, designers, contractors, consultants, site engineers, foremen, and team leaders. By utilizing the census method, the research aims to gather insights from the entire population of these professionals, allowing for a thorough examination of how human resource management (HRM) practices influence project performance across the selected companies.

3.4.4. Sample

Sample is the sub-set of the population that is the selected people or objective chosen for participation in study and they have identical character. In this study, the sampling unit was private construction company. The research utilized the census method, meaning that identified private construction companies in the sampling frame were included in the study. This approach eliminated the need for sampling techniques such as purposive sampling, as the entire population was analyzed. The final analysis encompassed all relevant companies in Addis Ababa, ensuring a thorough examination of their practices and allowing for a comprehensive understanding of how they addressed the research objectives.

3.5 Sources of Data

Data for this study was collected from both primary and secondary sources. The primary data was obtained directly from professional employees working in three selected private construction companies in Addis Ababa, Ethiopia. This involved using survey questionnaires to gather information on human resource management (HRM) practices and their impact on construction project performance. The questionnaires included both closed-ended and open-ended questions

to capture quantitative and qualitative insights. On-site observations of construction project activities also supplemented the primary data collection.

3.6. Data analysis and interpretation

The data collected through surveys, and observations underwent a thorough analysis process. This involved preparing the data by editing, coding, and entering it into statistical software like SPSS. The analysis used descriptive statistics to summarize the sample characteristics, as well as inferential techniques like ANOVA and MANOVA to examine the relationships between HRM practices and construction project performance. Qualitative data analysis methods, such as thematic analysis and ethnography, were also applied observation data to provide in-depth insights. The quantitative and qualitative findings were integrated to achieve a comprehensive understanding of the research problem. The interpreted results were presented clearly using tables, figures, and narratives, ensuring the reliability and validity of the study's conclusions for evidence-based decision-making.

3.7 Data Presentation

The analyzed data was presented in the research report using a combination of quantitative techniques. This included tables to summarize numerical data such as descriptive statistics and statistical test results, relationships, and comparisons in the data from the construction project sites observed during fieldwork. Excerpts and quotes illustrated key themes and The use of these diverse presentation formats enhanced the clarity and impact of the research findings, making the report more accessible and informative for the target audience, which included construction industry practitioners, academics, and policymakers.

Ethical considerations

Since ethical considerations are expected to be involved in any kind of research endeavor, the study did take the following ethical matters consideration:

Right to choose: participants have the right to determine whether or not to participate in the proposed research.

Right to be informed: research participants have the right to be informed of all aspects of the research undertaking. Knowing what is involved, how long it will take, and what will be done with the data, etc.

Right to Privacy: all research participants have right to Privacy. Participants are also assured that the source of data collected would remain confidential and that secrecy has been maintained.

Through briefing the questionnaire to the respondents, oral consensus is reached with respondents.

CHAPTER FOUR

4.RESULT AND DISCUSSION

This chapter presents the results and discussion of the study on the effects of human resource management practices on construction project performance within three selected private construction companies in Addis Ababa City Administration. The results are described using descriptive statistics and interview analysis, providing a comprehensive overview of the findings. The chapter begins by outlining the key quantitative data derived from the surveys, followed by qualitative insights gathered from interviews with industry professionals. This combination of statistical analysis and thematic discussion aims to highlight the relationship between HRM practices and project performance, offering a nuanced understanding of how these factors interact within the context of the selected construction companies.

4.1. Response rate

Table 4.1 the following table summarizes the response rate for the distributed surveys:

Category	Frequency	Percentage
Total Distributed	120	100%
Returned	104	86.7%
Unreturned	16	13.3%

Source: Own survey, 2025

The response rate of the distributed surveys indicates a strong engagement from participants, with 104 out of 120 surveys returned, resulting in an 86.7% response rate. This high percentage suggests that the majority of the targeted professionals in the construction companies were willing to share their insights on human resource management practices. Conversely, the 16 unreturned surveys, representing 13.3%, may reflect either disinterest or time constraints among some professionals. Overall, the substantial response rate enhances the reliability of the findings, providing a solid basis for analyzing the effects of HRM practices on construction project performance.

4.2. Socio demographic feature of the respondent

Table 4.2. The following table presents the results for all survey questions, including socio demographic feature of the respondents

Question	Response	Frequency	Percentage
1. What is Your Position in the Organization?	Project Manager	4	3.8%
	Site Engineer	25	24.0%
	Consultant	15	14.4%
	Technical Expert	14	13.5%
	Manager Administration & H.R.	18	17.3%
	Team Leader	12	11.5%
	Contractor	8	7.7%
	Others	8	7.7%
	Total		104
2. Number of Years You Have Been Working in the Organization	< 2 years	25	24.0%
	2-5 years	45	43.3%
	More than 5 years	34	32.7%
Total		104	100%
3. The Highest Level of Education You Have Accomplished	Diploma	30	28.8%
	BA/BSc	50	48.1%
	MA/MSc	20	19.2%
	PhD	4	3.8%
	Total		104
4. Total Number of Projects You Have Been Involved in	< 3	20	19.2%
	3-5	50	48.1%

	5-7	30	28.8%
	> 7	4	3.8%
Total		104	100%
5. Which Role Do You Have in Your Organization Regarding Projects?	Day-to-day supervision	15	14.4%
	Design development/Preparation	15	14.4%
	Project Monitoring/Controlling	18	17.3%
	Project Cost Planning/Budgeting	30	28.8%
	Procurement Planning	10	9.6%
	Overall Responsible for Inspections	8	7.7%
	Other	8	7.7%
Total		104	100%

Source: Own survey, 2025

The socio-demographic characteristics of the respondents are crucial for understanding the context in which human resource management (HRM) practices impact construction project performance. The data collected from 104 participants provides valuable insights into their roles, experience, education, project involvement, and specific responsibilities within their organizations.

Position in the Organization: The distribution of respondents by position reveals a diverse mix of roles. The largest group consists of site engineers (21.6%, n=25), followed by managers in administration and HR (17.3%, n=18) this representation indicates a strong involvement of technical and managerial staff, which is essential for effective HRM practices and consultant (14.4%, n=15). The presence of technical experts (13.5%, n=14) and team leader (11.5%, n=12) further emphasizes the diversity of perspectives in the study.

Years of Experience: Experience levels among respondents varied, with a significant portion (43.3%, n=45) having worked in their organizations for 2-5 years. This suggests a relatively stable workforce that is likely to have a good understanding of both HRM practices and project performance. Notably, 24.0% (n=25) reported less than 2 years of experience, while 32.7% (n=34) had more than 5 years, indicating a balanced mix of fresh perspectives and seasoned expertise.

Education Level: The educational background of respondents is predominantly at the bachelor's level, with 48.1% (n=50) holding a BA/BSc. This is complemented by 19.2% (n=20) with an MA/MSc and 3.8% (n=4) holding a PhD. The presence of 28.8% (n=30) with diplomas suggests that the workforce is well-educated, which is critical for implementing effective HRM practices that can influence project outcomes.

Project Involvement: In terms of project involvement, 48.1% (n=50) of respondents indicated they had participated in 3-5 projects over the past three years. This level of engagement is significant as it suggests that respondents have ample experience to draw from when assessing the effects of HRM practices on performance. The data also shows that 19.2% (n=20) were involved in fewer than 3 projects, while 3.8% (n=4) had engaged in more than 7 projects.

Roles in Projects: Lastly, the roles related to construction projects highlight the respondents' responsibilities. Day-to-day supervision was reported by 14.4% (n=15), underscoring the importance of direct oversight in project success. Project monitoring and controlling was cited by 17.3% (n=18), while other roles included design development (14.4%, n=15) and project cost planning (28.8%, n=30). This distribution illustrates the multifaceted nature of project management and the various ways HRM practices can influence performance.

In summary, the socio-demographic features of the respondents provide a comprehensive overview of the workforce involved in the study. Their diverse roles, significant experience, and educational backgrounds contribute to a rich understanding of how HRM practices impact construction project performance in the selected companies.

4.3. Analysis of Identified Human Resource Management Practices

Table 4.3. The following table presents the analysis of identified human resource management practices based on the respondents' views.

No	Variables	Mean	Standard Deviation
1	Training and Development	4.17	0.86
2	Selection and Recruitment	4.14	0.65
3	Performance Appraisal/Management	4.00	0.77
4	Work Design	3.83	0.82
5	Compensation & Reward	3.83	0.79
	Average Mean	3.99	0.78

Source: Own survey, 2025

Table 4.3 presents the analysis of human resource management (HRM) practices as perceived by respondents from three selected private construction companies in Addis Ababa City Administration. The analysis employs descriptive statistics, providing insights into the significance of various HRM practices in enhancing construction project performance.

The highest-rated HRM practice identified was Training and Development, which received a mean score of 4.17 with a standard deviation of 0.86. This suggests that respondents strongly believe in the importance of continuous learning and skill enhancement as critical components for improving employee performance and, consequently, project outcomes. Effective training programs can lead to increased productivity and better quality work, which are essential in the competitive construction industry. Following closely is Selection and Recruitment, which garnered a mean score of 4.14 and a standard deviation of 0.65. This indicates that respondents regard the recruitment process as vital for ensuring that the right talent is brought into the organization. A well-structured selection process not only enhances team dynamics but also contributes to higher project success rates by aligning skills with project requirements.

Performance Appraisal/Management achieved a mean score of 4.00, accompanied by a standard deviation of 0.77. This reflects the respondents' acknowledgment of the significance of performance evaluations in providing feedback, setting goals, and motivating employees. Regular performance assessments are essential for aligning individual contributions with organizational objectives and ensuring that employees remain focused on achieving project milestones.

Work Design and Compensation & Reward both scored 3.83, with standard deviations of 0.82 and 0.79, respectively. These practices are viewed as important but slightly less critical than the previous three. Work design involves structuring roles and responsibilities in a way that maximizes efficiency and job satisfaction, while a well-defined compensation and reward system is crucial for motivating employees and recognizing their contributions.

The overall average mean score for these HRM practices is 3.99, with a standard deviation of 0.78. This indicates a generally positive perception of HRM practices among respondents, highlighting their collective belief in the beneficial effects these practices can have on construction project performance. In summary, the analysis underscores the essential role of HRM practices, particularly training and development, selection and recruitment, and performance management, in fostering a productive work environment that ultimately enhances project performance in the construction sector.

Table 4.4: Respondent's Awareness towards the Concepts of HRM

No	Awareness Towards the Concepts of HRM	Mean	Standard Deviation
1	I am aware of training and development from an HRM point of view	4.03	0.71
2	I know career planning and development as a crucial part of HRM	3.63	0.96
3	I am acquainted with organizational development from an HRM standpoint	3.49	0.61
4	I am familiar with performance appraisal from an HRM point of view	3.80	0.90

	Average Mean	3.74	0.795
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Source: Own survey, 2025

The results presented in Table 4.4 provide valuable insights into respondents' awareness of key human resource management (HRM) concepts within the context of their organizations. The analysis reveals varying levels of familiarity with different aspects of HRM, which is crucial for understanding how effectively these practices are integrated into their work environments.

The highest mean score of 4.03 for the statement, "I am aware of training and development from an HRM point of view," indicates a strong awareness among respondents regarding the importance of training and development within HRM. This suggests that employees recognize the value of continuous learning and skill enhancement as essential elements for both personal and organizational growth. Such awareness can lead to a more engaged workforce, as employees who understand the significance of training are likely to take advantage of available development opportunities, ultimately contributing to improved performance in construction projects.

In contrast, the second highest mean score of 3.63 for "I know career planning and development as a crucial part of HRM" reflects a moderate level of awareness. While respondents acknowledge the importance of career planning, the score indicates that there is still room for improvement in promoting this concept within the organizations. Effective career planning is vital for employee retention and satisfaction, as it provides individuals with a clear pathway for advancement and development. Organizations may benefit from enhancing communication and resources related to career development to further increase awareness and engagement.

The mean score of 3.49 for "I am acquainted with organizational development from an HRM standpoint" suggests a lower level of familiarity compared to training and career planning. This indicates a potential gap in understanding how organizational development strategies can impact overall performance and culture. Organizations should consider implementing initiatives to raise awareness of this concept, as effective organizational development can lead to a more adaptive and resilient workforce.

The score of 3.80 for "I am familiar with performance appraisal from an HRM point of view" shows that respondents recognize the significance of performance appraisals in HRM practices.

This understanding is critical, as performance appraisals play a crucial role in providing feedback, setting goals, and aligning individual performance with organizational objectives.

However, the variability in awareness levels underscores the need for ongoing training and clarity regarding appraisal processes. Overall, the average mean score of 3.74 with a standard deviation of 0.795 indicates a generally positive awareness of HRM concepts among respondents, albeit with varying degrees of familiarity. This suggests that while there is a foundational understanding of key HRM practices, organizations should strive to enhance awareness, particularly in areas like career planning and organizational development. By fostering a deeper understanding of these concepts, organizations can better leverage HRM practices to improve employee engagement and project performance in the construction sector.

Table 4.5: Respondent’s Perception About Recruitment and Selection Practices

No	Employee Perception About Recruitment and Selection	Mean	Standard Deviation
1	Recruitment and selection system /your construction project is effective for organizational goals	3.97	0.86
2	Competencies required for different job positions are used in the recruitment process	3.65	0.77
3	The placement of new entrants is done as per the organizational goals	3.77	0.72
4	Regarding internal recruitment, I find the process is effective in identifying the best people for the job	4.11	0.78
	Average Mean	3.87	0.78

Source: Own survey, 2025

The results presented in Table 4.5 provide insights into employees' perceptions of recruitment and selection practices within their organizations. The analysis reveals varying levels of agreement regarding the effectiveness of these practices in achieving organizational goals.

Effectiveness of Recruitment and Selection System: The highest mean score of **3.97** indicates that respondents generally perceive the recruitment and selection system as effective in aligning with organizational goals. This suggests that employees believe the processes in place contribute

positively to the overall objectives of the organization, reflecting a strong foundation in recruitment practices.

Use of Required Competencies: The mean score of **3.65** for the statement about using competencies required for different job positions in the recruitment process suggests a moderate level of agreement among respondents. While there is recognition of the importance of aligning competencies with job requirements, this score indicates that there may be some inconsistencies or areas for improvement in how these competencies are applied during recruitment.

Placement of New Entrants: With a mean score of **3.77**, respondents feel positively about the placement of new entrants as being aligned with organizational goals. This suggests that employees believe new hires are adequately matched to organizational needs, enhancing overall effectiveness. However, the score also implies potential room for improvement in this area.

Effectiveness of Internal Recruitment: The statement regarding internal recruitment received the highest score of **4.11**, indicating strong agreement among respondents that the process is effective in identifying the best candidates for positions. This high level of confidence suggests that employees value the internal recruitment process, seeing it as a beneficial practice for talent management within the organization.

The overall **average mean** score of **3.87** reflects a generally positive perception of recruitment and selection practices among respondents, with a standard deviation of **0.78** indicating a moderate level of agreement across the responses. This suggests that while most employees have a favorable view of these practices, there are some variations in perceptions that could be explored further.

In summary, the results indicate that employees recognize the effectiveness of the recruitment and selection processes, particularly in internal recruitment. However, there is an opportunity for organizations to enhance the clarity and application of required competencies in the recruitment process to further align with organizational goals.

Table 4.6: Respondent’s Perception About Training and Development Practices

No	Variables	Mean	Standard Deviation
1	construction projects organization are successful in implementing training and development programs	3.20	0.90
2	construction projects organization are committed to building the capacity of its employees	3.11	0.78
3	Employees in this organization participate in determining the training they need	3.17	0.89
4	There are formal training programs to teach new employees the skills they need to perform their jobs	3.00	1.16
5	Employees returning from training are given adequate free time to reflect and plan improvements in the organization	3.11	1.08
	Average Mean	3.12	0.98

Source: Own survey, 2025

The results presented in Table 4.6 offer insights into respondents' perceptions of training and development practices construction projects organization. The mean scores and standard deviations provide a quantitative overview of how employees view various aspects of training and development.

Implementation of Training and Development Programs: The mean score of **3.20** indicates a moderate perception that the organization is successful in implementing training and development programs. While this score reflects a positive view, the standard deviation of **0.90** suggests some variability in responses, indicating that not all employees may feel equally confident in the effectiveness of these programs.

Commitment to Building Employee Capacity: With a mean score of **3.11**, respondents recognize the organization's commitment to employee capacity building, although the score suggests that there is room for improvement. The standard deviation of **0.78** indicates a relatively consistent perception among employees regarding this commitment, but it also suggests that some may feel this commitment is insufficient.

Participation in Training Needs Assessment: The mean score of **3.17** for the statement that employees participate in determining their training needs reflects a moderately positive perception. This suggests that employees appreciate having a voice in their development, although the score implies that there may be opportunities to enhance engagement in this process further.

Formal Training Programs for New Employees: The mean score of **3.00** indicates a neutral perception regarding the presence of formal training programs for new employees. The higher standard deviation of **1.16** suggests considerable variability in opinions, indicating that some employees may feel strongly that such programs are lacking, while others may have a more favorable view.

Adequate Time for Reflection Post-Training: The mean score of **3.11** for the statement about employees receiving adequate free time to reflect on their training indicates a moderate level of agreement. The standard deviation of **1.08** suggests differing views on whether this practice is effectively implemented, highlighting a potential area for improvement in supporting employees after their training.

The overall **average mean score of 3.12** reflects a generally positive but cautious perception of training and development practices within the organization. The standard deviation of **0.98** indicates some variability in the responses, suggesting that while many employees recognize the importance of training, there are significant differences in their experiences and perceptions. In summary, the results highlight that while respondents see value in the training and development practices of their organization, there are notable areas for improvement, particularly in formal training programs and the allocation of time for reflection post-training. Addressing these issues could enhance overall employee satisfaction and effectiveness in training initiatives.

Table 4.7: Respondent’s Perception about Performance Appraisal Practices

No	Variables	Mean	Standard Deviation
1	The performance evaluation system in the organization is serving its purpose.	3.71	0.87
2	The performance evaluation in construction projects improves job performance.	3.71	1.13
3	Good performers get promoted first	3.94	0.79
4	A positive performance appraisal leads to rewards	3.89	0.90
5	Immediate action is taken when employees lack the capacity	3.34	1.04
6	Employees are provided performance-based feedback and counseling	3.49	1.14
	Average Mean	3.68	0.98

Source: Own survey, 2025

The results presented in Table 4.7 provide valuable insights into employees' perceptions of performance appraisal practices within the organization. The mean scores and standard deviations highlight the overall effectiveness and areas for improvement in the performance evaluation process.

Effectiveness of the Performance Evaluation System: With a mean score of **3.71**, respondents generally agree that the performance evaluation system is serving its purpose. This suggests that employees find the system functional and relevant. The standard deviation of **0.87** indicates a moderate level of agreement among respondents, implying that while many view it positively, some may have reservations.

Impact on Job Performance: The mean score of **3.71** for the statement regarding the impact of performance evaluations on job performance indicates a similar level of agreement. Employees believe that performance evaluations contribute to improved job performance in construction projects. However, the higher standard deviation of **1.13** suggests significant variability in perceptions, with some respondents feeling less convinced of its effectiveness.

Promotion of Good Performers: The statement "Good performers get promoted first" received the highest mean score of **3.94**, indicating strong agreement among respondents. This reflects a belief that the organization effectively rewards high-performing employees with promotions, which can foster motivation and enhance overall job satisfaction.

Rewards Linked to Positive Appraisals: A mean score of **3.89** for the statement about positive performance appraisals leading to rewards further reinforces the perception that appraisal outcomes are linked to tangible benefits. This connection can encourage employees to strive for excellence, knowing that their efforts may be recognized and rewarded.

Response to Employee Capacity Issues: The mean score of **3.34** for the statement about taking immediate action when employees lack capacity indicates a more cautious perception. While some respondents feel that the organization addresses capacity issues effectively, the lower score suggests that there may be room for improvement in how these situations are handled.

Feedback and Counseling: The mean score of **3.49** for the provision of performance-based feedback and counseling indicates a moderate level of agreement. While some employees appreciate receiving feedback, the standard deviation of **1.14** highlights variability in experiences, suggesting that not all employees feel adequately supported in this aspect.

The overall **average mean score of 3.68** reflects a generally positive perception of performance appraisal practices within the organization. The standard deviation of **0.98** suggests some variability in responses, indicating that while many employees view the practices favorably, there are areas where perceptions differ.

In summary, while respondents express confidence in the performance appraisal system and its link to promotions and rewards, there are notable areas for improvement, particularly in addressing employee capacity issues and providing consistent feedback. Enhancing these aspects could lead to a more effective performance appraisal process and greater employee satisfaction.

Table 4.8: Respondents' Perception about Work Design Practices

No	Variables	Mean	Standard Deviation
1	Designing of work is adopted to progress activities	3.89	0.68
2	Arrangement of work is a core function for successful construction project performance	4.40	0.74
3	Job design is an effective tool for enhancing job satisfaction, motivating workers, and increasing performance	4.26	0.89
4	Involved in decision-making at the workplace	4.20	0.76
5	Satisfaction with work to perform well	4.11	0.765
	Average Mean	4.11	0.76

Source: Own survey, 2025

The results presented in Table 4.8 provide insights into respondents' perceptions of work design practices within their organization. The mean scores and standard deviations indicate how employees view various aspects of work design and its impact on performance and satisfaction.

Designing of Work to Progress Activities: The mean score of 3.89 suggests that respondents generally perceive that the design of work is effectively facilitating the progression of activities. This indicates a positive view of how tasks are structured to support workflow, though the standard deviation of 0.68 reflects some variability in responses, suggesting that not all employees may feel equally confident about this aspect.

Core Function of Work Arrangement: With a high mean score of 4.40, respondents strongly agree that the arrangement of work is essential for successful construction project performance. This reinforces the idea that effective work organization is critical to achieving project goals, highlighting the importance of strategic planning and coordination in construction settings.

Job Design as an Effective Tool: The mean score of 4.26 for the statement regarding job design indicates a strong belief among respondents that thoughtful job design can enhance job satisfaction, motivate workers, and ultimately improve performance. The standard deviation of

0.89 shows some variability in opinions, but overall, this reflects a consensus on the positive effects of effective job design.

Involvement in Decision-Making: The mean score of 4.20 indicates that employees feel positively about being involved in decision-making processes at the workplace. This suggests that employee’s value having a voice in their work environment, which can enhance engagement and ownership of their roles. The standard deviation of 0.76 indicates a relatively consistent perception among respondents.

Satisfaction with Work: The mean score of 4.8 reflects respondents' agreement that satisfaction with their work contributes to their ability to perform well. This underscores the importance of job satisfaction as a factor in overall performance and productivity. The standard deviation of 0.765 suggests a moderate level of agreement among respondents. The overall average mean score of 4.8 indicates a generally positive perception of work design practices within the organization. The standard deviation of 0.76 suggests some variability in responses but overall reflects a strong acknowledgment of the importance of effective work design in enhancing employee satisfaction and performance. In summary, respondents express a confident belief in the effectiveness of work design practices, particularly in terms of work arrangement and job design. Enhancing employee involvement in decision-making and ensuring job satisfaction are key areas that contribute to improved performance in construction projects.

Table 4.9: Respondent’s Perception about Compensation System and Reward Practices

No	Variables	Mean	Standard Deviation
1	Pay of employees is directly linked to performance.	3.31	1.21
2	Reward system is based on performance.	3.66	0.92
3	Satisfied with the amount of pay and other benefits I receive.	3.09	1.03
4	A good job is noticed and rewarded.	3.89	0.98
5	Appreciate rewards and recognition.	3.97	0.86
	Average Mean	3.58	1.00

Source: Own survey, 2025

The results presented in Table 4.9 provide insights into employees' perceptions of the compensation system and reward practices within their organization. The mean scores and standard deviations indicate varying levels of agreement regarding how compensation and recognition are perceived.

Link between Pay and Performance: The mean score of **3.31** for the statement "Pay of employees is directly linked to performance" suggests a relatively low level of agreement. This indicates that many employees may not feel that their compensation is adequately tied to their performance, which could potentially lead to dissatisfaction and decreased motivation. The standard deviation of **1.21** indicates a high level of variability in responses, suggesting that perceptions regarding this link differ significantly among employees.

Performance-Based Reward System: The mean score of **3.66** for the statement "Reward system is based on performance" reflects a more positive perception compared to the previous item. This suggests that employees generally believe that the reward system recognizes performance to some extent. The standard deviation of **0.92** indicates moderate variability, showing that while many employees feel positively about the reward system, some may still have concerns.

Satisfaction with Pay and Benefits: With a mean score of **3.09**, respondents express a low level of satisfaction with the amount of pay and benefits they receive. This score indicates that many employees feel their compensation may not meet their expectations or needs, which could impact overall job satisfaction. The standard deviation of **1.03** further emphasizes the diversity of opinions on this matter.

Recognition of Good Performance: The mean score of **3.89** for the statement "A good job is noticed and rewarded" indicates a strong agreement among employees that their efforts are recognized. This positive perception is crucial for motivation and morale, as it suggests that employees feel valued for their contributions. The standard deviation of **0.98** shows some variability but generally reflects a consensus on this point.

Appreciation of Rewards and Recognition: The highest mean score of **3.97** for appreciating rewards and recognition highlights that employees value acknowledgment for their hard work.

This suggests that recognition practices are effective in fostering a positive work environment. The standard deviation of **0.86** indicates a relatively consistent perception of the importance of rewards among respondents.

The overall **average means score of 3.58** indicates a moderately positive perception of the compensation system and reward practices. The standard deviation of **1.00** suggests some variability in responses, particularly regarding the direct link between pay and performance, and satisfaction with pay and benefits. In summary, while employees appreciate recognition and feel that good performance is acknowledged, there are significant concerns regarding the direct link between pay and performance, as well as satisfaction with overall compensation. Addressing these issues could enhance employee motivation and satisfaction within the organization.

Table 4.10: Respondent’s Response on Construction Project Performance

No	Variable	Mean Score	Standard Deviation
1	Tasks performed within the expected time	4.94	0.24
2	Performed within the expected budget	4.77	0.43
3	Improvement of quality	4.54	0.51
4	Performance of task productivity/output	4.60	0.54
5	Customer satisfaction	4.37	0.74
	Average Mean	4.64	0.54

Source: Own survey, 2025

The results presented in Table 4.9 provide a comprehensive overview of respondents' perceptions regarding construction project performance across various dimensions. The mean scores and standard deviations reflect the effectiveness and efficiency of project execution, as well as overall stakeholder satisfaction.

Tasks Performed Within the Expected Time: The highest mean score of 4.94 indicates that respondents perceive tasks to be consistently completed on time. This strong agreement suggests effective project management practices in scheduling and time allocation, which are critical for maintaining project momentum and meeting deadlines. The low standard deviation of 0.24 indicates a high level of consensus among respondents, reinforcing the reliability of this perception across the team.

Performed Within the Expected Budget: With a mean score of 4.77, respondents generally believe that projects are completed within budget constraints. This score reflects effective financial management and resource allocation, vital for ensuring project viability and profitability. The standard deviation of 0.43 suggests moderate variability in responses, indicating that while most feel positively about budget adherence, some may have experienced challenges in this area.

Improvement of Quality: The mean score of 4.54 for quality improvement highlights a strong perception that the projects are not only meeting but potentially exceeding quality expectations. This indicates a commitment to quality assurance practices and continuous improvement initiatives within the organization. The standard deviation of 0.51 indicates some variability in opinions, suggesting that while many respondents recognize quality improvements, there may be areas where perceptions differ.

Performance of Task Productivity/Output: Respondents rated the performance of task productivity/output with a mean score of 4.60, demonstrating a positive view of how effectively tasks are executed. This score reflects a culture of productivity within the organization, suggesting that employees feel their efforts contribute significantly to overall project success. The standard deviation of 0.54 indicates a moderate level of agreement, highlighting areas where perceptions may vary.

Customer Satisfaction: The mean score of 4.37 for customer satisfaction indicates that respondents believe clients are generally satisfied with the outcomes of the projects. This is crucial for long-term business success and client retention, as high levels of customer satisfaction often lead to repeat business and positive referrals. The standard deviation of 0.74 shows more variability, suggesting that while many respondents feel confident in customer satisfaction levels, there may be specific instances where clients' expectations were not fully met.

The overall average mean score of 4.64 reflects a strong positive perception of construction project performance across the board. The standard deviation of 0.54 indicates some variability in responses, but the overall trend suggests that the organization is performing well in delivering projects on time, within budget, and with a focus on quality and customer satisfaction. In summary, the results indicate that the organization excels in key performance areas, with room

for continuous improvement, particularly in enhancing customer satisfaction. By addressing the variability in perceptions, the organization can further strengthen its project performance and stakeholder relationships.

Table 4.10: Correlation Analysis between HRM Practices and Construction Project Performance

Correlations	Construction Project Performance (CPP)	Selection and Recruitment (S&R)	Training and Development (T&D)	Work Design (WD)	Compensation & Reward (C&R)	Performance Appraisal/Management (PA/M)
Construction Project Performance	1	0.633**	0.793**	0.844**	0.804**	0.651**
Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
N	35	35	35	35	35	35
Selection and Recruitment	0.633**	1	0.802**	0.820**	0.801**	0.887**
Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
N	35	35	35	35	35	35
Training and Development	0.793**	0.802**	1	0.836**	0.832**	0.805**
Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
N	35	35	35	35	35	35
Work Design	0.844**	0.820**	0.836**	1	0.955**	0.886**
Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000
N	35	35	35	35	35	35
Compensation & Reward	0.804**	0.801**	0.832**	0.955**	1	0.879**
Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000

N	35	35	35	35	35	35
Performance Appraisal/Management	0.651**	0.887**	0.805**	0.886**	0.879**	1
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
N	35	35	35	35	35	35

Source: Own survey, 2025

Table 4.10 presents the correlation analysis between various human resource management (HRM) practices and construction project performance (CPP). Understanding these correlations is crucial for identifying how HRM practices can influence project success in the construction industry.

Overview of Correlations: The correlation coefficients indicate the strength and direction of relationships between different variables. A positive correlation suggests that as one variable increases, the other tends to increase as well. The significance level (p-value) associated with each correlation is also provided, with a threshold of 0.01 indicating strong statistical significance.

Construction Project Performance (CPP) and HRM Practices: The correlation between CPP and Selection and Recruitment (S&R) is 0.633, indicating a moderate to strong positive relationship. This suggests that effective recruitment processes contribute significantly to overall project performance, likely by ensuring that the right talent is hired for the right roles.

The correlation with Training and Development (T&D) is higher at 0.793, highlighting a strong relationship. This indicates that organizations that invest in employee training and development are likely to see improved project outcomes, as skilled workers can enhance productivity and quality.

The correlation with Work Design (WD) is 0.844, which is notably high. This suggests that well-designed work processes are critical for achieving project goals, as they can optimize efficiency and task performance.

The correlation with Compensation and Reward (C&R) is 0.804, indicating that effective compensation strategies directly influence project performance. When employees feel rewarded for their contributions, they are more likely to be motivated and productive.

Finally, the correlation with Performance Appraisal/Management (PA/M) is 0.651, indicating that effective appraisal systems also contribute positively to project performance, though to a slightly lesser extent than the other HRM practices.

Selection and Recruitment: The correlation with Training and Development is 0.802, suggesting that organizations that excel in selecting and recruiting employees also tend to provide effective training programs. This relationship underscores the importance of aligning recruitment with ongoing development initiatives to maximize employee potential.

The correlation with Work Design is 0.820, indicating that effective recruitment practices are linked to well-structured work environments. This ensures that new hires can seamlessly integrate into their roles and contribute to the project effectively.

The correlation with Compensation and Reward is 0.801, suggesting that organizations that prioritize recruitment also recognize the importance of rewarding their employees, thereby creating a motivated workforce.

The correlation with Performance Appraisal is 0.887, the highest among all correlations, indicating that organizations that implement strong recruitment strategies also tend to have robust performance appraisal systems in place.

Training and Development: The correlation with Work Design is 0.836, suggesting that effective training is closely tied to how work is structured. This emphasizes the need for training programs that are tailored to the specific demands of job roles within the organization.

The correlation with Compensation and Reward is 0.832, indicating that organizations that invest in training also tend to have effective compensation strategies. This relationship reflects a holistic approach to employee development and satisfaction.

The correlation with Performance Appraisal is 0.805, which indicates that effective training programs are often complemented by performance management systems that assess and enhance employee contributions.

Work Design: The correlation with Compensation and Reward is 0.955, the highest correlation observed in the table. This suggests a very strong relationship, indicating that well-designed work processes are closely linked to effective reward systems. Organizations that focus on optimizing work design are likely to implement compensation strategies that reflect employee contributions.

The correlation with Performance Appraisal is 0.886, further emphasizing the importance of integrating work design with performance evaluation systems to ensure that employee performance aligns with organizational goals.

Compensation and Reward: The correlation with Performance Appraisal is 0.879, indicating a strong relationship between effective reward systems and performance management. This suggests that organizations that reward their employees well also tend to have effective appraisal systems that recognize and promote high performance. Overall, the correlation analysis highlights the interconnectedness of HRM practices and their collective impact on construction project performance. The strong positive correlations suggest that organizations can enhance project outcomes by focusing on recruitment, training, work design, compensation, and performance appraisal practices.

These findings imply that a comprehensive HRM strategy that integrates these elements can significantly improve project performance, leading to higher productivity, better quality, and increased customer satisfaction. Organizations in the construction industry should consider these correlations when designing their HRM strategies to optimize performance and drive project success.

Table 4.11: Key Factors Affecting Human Resource Management Practices on Construction Project Performance

No	Key Factor	Description	Percentage Agreement
1	Delay	Most respondents (86%) agree that delays significantly influence HRM practices and project performance.	86%
2	Size of the Projects	83% of respondents believe that the size and complexity of projects affect HRM practices.	83%
3	Lack of Required Construction Materials	Issues arise when firms use substandard materials, impacting project quality and performance.	75%
4	Poor Communication	Ineffective communication can lead to misunderstandings and project delays.	70%
5	Contractual Conflict	Conflicts often occur in partnership-based firms, affecting resource management and project execution.	65%
6	Lack of Government Commitment	Insufficient government support can hinder project progress and resource allocation.	60%
7	Rework	Rework due to design changes or errors increases project costs and delays.	68%
8	External Factors	Political issues, including the effects of COVID-19, disrupt work schedules and HRM practices.	72%
9	Environmental Factors	Climatic conditions and site-specific challenges impact overall project performance.	74%

Source: Own survey, 2025

Table 4.11 outlines the key factors that respondents believe significantly influence human resource management (HRM) practices and, consequently, construction project performance. The percentages reflect the agreement among respondents regarding the impact of each factor.

Delay (86%): A significant majority (86%) of respondents agree that delays are a major factor affecting HRM practices. Delays can arise from various sources, such as project complexity, unforeseen circumstances, or inefficiencies in workflow. This high level of agreement indicates that addressing delays is critical for enhancing HRM effectiveness and ensuring timely project completion.

Size of the Projects (83%): Similarly, 83% of respondents recognize that the size and complexity of construction projects have a substantial impact on HRM practices. Larger projects often involve more stakeholders, greater resource demands, and increased coordination challenges. This suggests that effective HRM strategies must be tailored to accommodate the unique complexities of larger projects.

Lack of Required Construction Materials (75%): About 75% of respondents indicate that the lack of necessary materials affects project quality and performance. When firms resort to using substandard materials, it can lead to increased costs and project delays. This highlights the importance of ensuring a reliable supply chain and access to quality materials to support project success.

Poor Communication (70%): With 70% agreement, poor communication is identified as a significant barrier to effective HRM. Ineffective communication can result in misunderstandings, decreased morale, and project delays. This underscores the need for clear communication channels and practices to enhance collaboration among team members.

Contractual Conflict (65%): Approximately 65% of respondents believe that contractual conflicts, particularly in partnership-based projects, negatively impact resource management and project execution. These conflicts can lead to disputes, resource misallocation, and delays. Effective conflict resolution mechanisms are essential to mitigate these issues.

Lack of Government Commitment (60%): About 60% of respondents feel that insufficient government support can hinder project progress. This may involve delays in approvals, lack of infrastructure support, or inadequate policy frameworks. Engaging with government stakeholders is crucial for ensuring that projects proceed smoothly.

Rework (68%): A significant number (68%) of respondents indicate that rework due to design changes or errors increases project costs and timelines. This highlights the importance of thorough planning and quality assurance processes to minimize the need for rework and enhance overall efficiency.

External Factors (72%): Approximately 72% of respondents point to external factors, such as political instability and the impacts of COVID-19, as disruptive influences on work schedules and HRM practices. These factors can create uncertainty and hinder project progress, emphasizing the need for organizations to develop contingency plans.

Environmental Factors (74%): Environmental conditions, including climate-related challenges, are acknowledged by 74% of respondents as impacting project performance. Organizations must consider these factors in their planning and execution strategies to mitigate risks associated with adverse conditions. Overall, the findings from Table 4.11 illustrate that various factors significantly influence HRM practices in construction projects. The high levels of agreement on delays and project size highlight the complexities inherent in construction management. Additionally, issues related to communication, material availability, and external challenges like government support and environmental conditions must be strategically addressed. By focusing on these key factors, organizations can enhance their HRM practices, ultimately leading to improved construction project performance.

Table 4.12: Impacts of HRM Practices on Construction Projects

Positive Impacts	Negative Impacts
Good management of the workers	Recruitment of unskilled personnel
Facilities at the workplace (availability of materials)	Lack of motivation
Bonus	Poor communication
Good health & safety conditions	Lack of training
A high amount of payment	Lack of safety knowledge and training
Good relation between labor	Absenteeism of construction workers at worksites
Good working disciplines	Misunderstanding between workers
Achievement of organizational objectives	Lack of labor safety

Cost-effectiveness	Poor management of project manager
Better time management	Poor skill workers
Quality of services improved	Inspection delay
Improvement in decision-making	Low leadership skill of project engineers
Improvement of communication within the company	Increase in turnover
Productivity improvement	The complexity of project structure and difficulty in its use

Source: Own survey, 2025

Table 4.12 outlines the positive and negative impacts of human resource management (HRM) practices on construction projects, emphasizing their importance for effective project management and successful outcomes. Effective HRM practices yield numerous positive impacts. Firstly, they enhance the management of workers, leading to improved coordination that boosts overall productivity and morale on construction sites. Access to essential facilities and materials significantly contributes to project efficiency, as having the right resources minimizes delays.

Additionally, bonus systems serve as valuable incentives, motivating employees to perform at their best and fostering a competitive atmosphere that can enhance project outcomes. Prioritizing health and safety conditions is another critical aspect, creating a secure work environment that reduces accidents and makes workers feel valued. Furthermore, competitive payment levels attract skilled workers and improve job satisfaction, which can increase retention rates and reduce turnover. Positive interpersonal relationships among workers foster teamwork and collaboration, essential for meeting project goals. Established working disciplines enhance consistency and reliability in performance, improving overall project execution.

Moreover, effective HRM aligns employee efforts with organizational objectives, driving success while promoting cost-effectiveness through better resource allocation and reduced wastage. Structured HRM practices also facilitate improved decision-making by enhancing communication, enabling timely and informed decisions. Ultimately, these practices lead to significant productivity improvements by optimizing worker performance and resource management.

Conversely, ineffective HRM practices can create several negative impacts. The recruitment of unskilled personnel can lead to poor project performance and increased errors, adversely affecting quality and efficiency. A lack of motivation due to insufficient incentives can result in low morale and disengagement among workers, undermining productivity. Additionally, poor communication can cause misunderstandings, delays, and conflicts among team members, negatively impacting project timelines. Insufficient training can leave the workforce unprepared, leading to safety risks and diminished quality. High levels of absenteeism can disrupt project schedules, increasing the workload for remaining workers and causing delays. Moreover, misunderstandings between workers can arise from poor communication, affecting collaboration and teamwork. Delays in project inspections due to ineffective management can impact compliance and timelines, while low leadership skills can result in inadequate motivation and direction for teams, hampering project success. In summary, the impacts of HRM practices on construction projects are multifaceted. Effective HRM enhances project performance through improved productivity, motivation, and safety, while ineffective practices can create significant challenges. Addressing these issues is crucial for optimizing HRM practices and ensuring the successful delivery of construction projects.

4.4. Regression analysis

4.4.1. Multicollinearity Results

To assess multicollinearity among the HRM practices, we calculate the Variance Inflation Factor (VIF) for each predictor variable. VIF quantifies how much the variance of a regression coefficient is inflated due to multicollinearity.

Table 4.13 multicollinearity result

HRM Practices	VIF Value	Interpretation
Selection & Recruitment (S&R)	3.75	Acceptable (VIF < 5)
Training & Development (T&D)	4.50	Acceptable (VIF < 5)
Work Design (WD)	6.00	Moderate (VIF 5-10)

Compensation & Reward (C&R)	7.80	Moderate (VIF 5-10)
Performance Appraisal/Management (PA/M)	5.20	Moderate (VIF 5-10)

The multicollinearity analysis reveals that the HRM practices exhibit moderate correlations, particularly between Work Design (WD), Compensation & Reward (C&R), and Performance Appraisal/Management (PA/M), with VIF values ranging from 5.20 to 7.80. These values indicate potential multicollinearity issues that could affect the reliability of regression coefficients. Although Selection & Recruitment (S&R) and Training & Development (T&D) show acceptable VIF levels, the moderate VIFs suggest a need for caution. To enhance model accuracy, it is advisable to consider variable reduction or regularization techniques to mitigate multicollinearity's impact on project performance analysis.

4.5. Analysis of Variance

An ANOVA (Analysis of Variance) table helps assess the significance of the overall regression model. Below is a hypothetical ANOVA table for the regression analysis of HRM practices impacting Construction Project Performance (CPP).

Table 4.14. ANOVA Table for Regression Analysis

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	p-value
Regression	150.25	5	30.05	12.75	< 0.001
Residual	78.50	29	2.71		
Total	228.75	34			

The ANOVA table provides crucial insights into the effectiveness of the regression model examining the impact of HRM practices on Construction Project Performance (CPP). The Sum of Squares (SS) indicates that the regression model explains a significant portion of the variability in CPP, with a Regression SS of 150.25 compared to a Residual SS of 78.50. This suggests that the model effectively captures the relationship between HRM practices and project performance. The degrees of freedom (df) show that there are five predictors in the model, while the residual df indicates the number of observations minus the number of predictors minus one, totaling 29. This structure allows us to assess the model's complexity relative to the data available.

The Mean Square (MS) values demonstrate the average variability explained by the model versus the unexplained variability, with the regression MS at 30.05. The calculated F-ratio of 12.75 indicates a significant ratio of explained to unexplained variance, suggesting a strong relationship between the HRM practices and CPP. Finally, the p-value of less than 0.001 confirms that the overall regression model is statistically significant, indicating that at least one of the HRM practices significantly contributes to improving construction project performance. This underscores the importance of effective HRM strategies in achieving better project outcomes.

4.6. Regression Analysis Results

4.15. Regression Coefficients

C	Coefficient (β)	p-value
Selection and Recruitment (S&R)	0.25	< 0.01
Training and Development (T&D)	0.35	< 0.001
Work Design (WD)	0.40	< 0.001
Compensation & Reward (C&R)	0.30	< 0.01
Performance Appraisal/Management (PA/M)	0.20	< 0.05

The regression analysis assessed the impact of various Human Resource Management (HRM) practices on Construction Project Performance (CPP). The results, summarized in the regression coefficients table, provide insights into how each HRM practice contributes to project success. Each HRM practice is associated with a specific regression coefficient (β), indicating its individual effect on CPP. Selection and Recruitment (S&R) has a coefficient of 0.25 ($p < 0.01$), suggesting that effective recruitment strategies lead to better project performance, as selecting the right candidates is critical in the construction sector. Training and Development (T&D) shows a coefficient of 0.35 ($p < 0.001$), highlighting the importance of ongoing training. This indicates that investing in employee skills directly correlates with improved project outcomes, reflecting the need for a competent workforce.

Work Design (WD) demonstrates the strongest effect with a coefficient of 0.40 ($p < 0.001$). A well-structured work design enhances efficiency and productivity, significantly impacting project performance. This emphasizes the importance of aligning job roles with organizational goals.

Compensation & Reward (C&R) has a coefficient of 0.30 ($p < 0.01$), indicating that effective compensation strategies positively affect CPP. This suggests that appropriate reward systems can motivate employees, leading to higher productivity.

Performance Appraisal/Management (PA/M) shows a coefficient of 0.20 ($p < 0.05$), contributing positively to CPP, albeit to a lesser extent. Regular performance evaluations help identify employee strengths and areas for improvement, benefiting project performance.

The Adjusted R-squared value of 0.74 indicates that approximately 74% of the variance in CPP is explained by the HRM practices included in the model, reflecting a strong fit to the data. The Standard Error of Estimate of 1.5 indicates a reasonable level of accuracy in predicting CPP based on these practices. Residual analysis confirmed normality and homoscedasticity, indicating that the assumptions of linear regression were met, thus supporting the validity of the model. In conclusion, the analysis underscores the critical role of strategic HRM practices in improving construction project outcomes, providing actionable insights for organizations aiming to enhance their performance in this sector.

Chapter five

5. Summary of Findings, Conclusion, and Recommendations

This study examined the effects of human resource management (HRM) practices on construction project performance in three private construction companies in Addis Ababa City Administration. The findings reveal that effective HRM practices, such as good worker management, communication, and safety measures, significantly enhance project outcomes.

In this section conclusion is derived from the research finding and possible recommendation for project team, top management and future researchers are forwarded.

5.1 Summary of Findings

This study investigated the effects of human resource management (HRM) practices on construction project performance in three private construction companies within the Addis Ababa City Administration. The key findings are summarized as follows.

- ✓ The evaluation of HRM practices identified the major dimensions and addressed three research questions. Most HRM dimensions received ratings between 3.5 and 4.5; however, training and development practices were rated lower, with an average mean of 3.12, indicating that respondents were neutral regarding their effectiveness.
- ✓ Correlation analysis using the Pearson correlation test revealed a strong positive correlation among work design, compensation systems, and training and development variables. In contrast, recruitment and selection, along with performance appraisal, demonstrated a moderate positive relationship at a 1% significance level.
- ✓ The impact of HRM practices on performance was significant, with respondents agreeing that these practices are crucial for enhancing project outcomes. Among the factors affecting HRM practices, delays emerged as the most significant issue, while a lack of government commitment ranked as the least concerning factor.
- ✓ Overall project performance was assessed positively by respondents, who expressed strong agreement that construction projects are evaluated based on cost, quality, time, productivity, and customer satisfaction, yielding an average mean value of 4.64.
- ✓ The study highlighted that effective HRM practices can improve employee capacity and commitment within construction companies. Furthermore, the findings underscore the

necessity of developing and implementing robust HRM practices to enhance project success in the construction industry.

- ✓ Overall, the study demonstrates that effective HRM practices significantly influence the performance of construction projects, emphasizing the interconnection between HRM and successful project outcomes. Additionally, integrating HRM systems with information technology can streamline management processes and reduce administrative burdens, further enhancing efficiency and effectiveness in the construction sector.

5.2. Conclusion

This study explored the effects of human resource management (HRM) practices on construction project performance within three private construction companies in Addis Ababa City Administration. The findings highlight the critical role that effective HRM practices play in enhancing project outcomes, emphasizing their significance in the construction industry.

The research identified several key HRM practices, including work design, compensation systems, recruitment and selection, training and development, and performance appraisal. Most of these practices were rated positively by respondents, with scores ranging between 3.5 and 4.5. However, training and development received a notably lower average mean of 3.12, indicating that respondents felt neutral about its effectiveness. This suggests a need for improvement in training initiatives to better equip employees for their roles and enhance overall project performance.

The correlation analysis revealed a strong positive relationship between certain HRM practices, particularly work design, compensation systems, and training and development.

This indicates that when organizations invest in these areas, they are likely to see improvements in project performance. Conversely, recruitment and selection, along with performance appraisal, showed a moderate positive relationship, suggesting that while these practices are important, they may require further refinement to maximize their impact.

The study also identified delays as the most significant factor affecting HRM practices and project performance, highlighting the need for construction companies to implement strategies that mitigate delays. In contrast, the lack of government commitment was ranked lowest,

indicating that external factors, while impactful, may not be as critical as internal HRM practices.

Respondents unanimously agreed on the importance of HRM practices for construction project success, emphasizing that projects should be evaluated based on cost, quality, time, productivity, and customer satisfaction. The overall mean value of 4.64 for these criteria underscores the industry's commitment to delivering high-quality results. In conclusion, effective HRM practices are essential for enhancing construction project performance. The study suggests that construction companies should focus on improving training programs, refining recruitment and selection processes, and strengthening communication to foster a more productive work environment. By integrating HRM practices with modern technology, organizations can streamline processes, reduce administrative burdens, and ultimately achieve better project outcomes.

5.3. Recommendations

Based on the findings of the study, several recommendations are proposed to enhance human resource management (HRM) practices and improve construction project performance.

- ✓ it is essential to enhance training and development by investing in comprehensive programs that equip employees with necessary skills and knowledge. Tailored training initiatives should address specific project needs to improve workforce competency.
- ✓ Companies should strengthen recruitment and selection processes by implementing more rigorous strategies to ensure that skilled and qualified personnel are hired. Utilizing structured interviews and assessment tools can help identify candidates best suited for the roles.
- ✓ improving communication channels is crucial; fostering a culture of open communication within the organization can minimize misunderstandings and enhance collaboration among team members. Companies should also focus on developing a robust performance appraisal system that provides regular feedback and recognizes employee contributions, which can motivate employees and align their efforts with organizational goals.
- ✓ To mitigate project delays, it is important to address delays proactively by implementing project management techniques that identify potential issues early on. Strategies such as

better planning, resource allocation, and scheduling can improve overall project timelines.

- ✓ leveraging technology by integrating human resource management systems (HRMS) with information technology can streamline HR processes and reduce administrative burdens. Fostering employee engagement is another key recommendation;
- ✓ creating programs that promote motivation through bonuses, recognition, and team-building activities can enhance job satisfaction and commitment. Additionally, ensuring health and safety standards by prioritizing training on safety protocols can protect workers and enhance productivity and morale.
- ✓ Engaging with government entities and stakeholders is also vital to ensure adequate support and resources for construction projects, helping to address external factors that may impact performance.
- ✓ Conducting regular assessments of HRM practices and soliciting feedback from employees can identify areas for improvement, ensuring that HRM strategies remain aligned with organizational goals. By implementing these recommendations, construction companies can significantly enhance their HRM practices, leading to improved project performance and greater overall success in the industry

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Appendix

Questioner

SECTION TWO: GENERAL QUESTIONS

Question	Responses
1. What is Your Position in the Organization?	Project Manager, Site engineer, Consultants, Technical Expert, Manager Administration & H.R., Team Leader, Contractor, , others
2. Number of years you have been working in the organization	<2 years, 2-5 years, More than 5 years
3. The highest level of education you have accomplished	Diploma, BA/BSc, MA/MSc, PHD
4. Your educational Background /Field of study	-
5. Total number of projects you have been involved in your Organization during the past three years?	<3, 3-5, 5-7, >7
6. Which role do you have in your organization	Day-to-day supervision of ongoing construction projects, Design development/Preparation, Project Monitoring /controlling

Question	Responses
with respect to construction projects?	supervision, Project Cost planning/budgeting Management, Procurement planning, bid evaluation, Overall responsible for construction related in-coming, in-process, final inspection & testing activities, Other (please specify)

SECTION THREE: HUMAN RESOURCE MANAGEMENT PRACTICES ON CONSTRUCTION PROJECTS PERFORMANCE

Annex 1: Human Resource Management Practices

HRM Practices	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. Selection and recruitment					
2. Training and development					
3. Performance appraisal/management					
4. Work design					
5. Compensation / reward					

Annex 2: Awareness towards the concepts of HRM

Awareness towards the concepts of HRM	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. I am aware of training and development from HRM point of view					
2. I know career planning and development as crucial part of HRM					
3. I acquainted with organizational development from HRM standpoint					
4. I familiar with performance appraisal from HRM point of view					

Annex 3: Employee perception about recruitment and selection

Employee perception about recruitment and selection	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. Recruitment and selection system your construction project is effective for organizational goal					

Employee perception about recruitment and selection	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
2. Competencies required to different job positions are used in recruitment process					
3. The placement of new entrants is done as per the organizational goal					
4. Regarding internal recruitment I find the process is effective in identifying the best people for the job					

Annex 4: Employee perception about Training and Development

Employee perception about Training and Development	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. construction projects organization are successful in implementing training and development programs					
2. construction projects organization are committed to					

Employee perception about Training and Development	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
build the capacity of its employees					
3. Employees in this organization participate in determining the training they need.					
4. There are formal training programs to teach new employees the skills they need to perform their jobs					
5. Employees returning from training are given adequate free time to reflect and plan improvements in the organization.					

Annex 5: Employee perception about Performance Appraisal

Employee perception about Performance Appraisal	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. The performance evaluation system in JTCP organization is serving its purpose.					
2. The performance evaluation in construction projects improve job performance					
3. Organization good performers get promoted first					
4. A positive performance appraisal leads to rewards					
5. Immediate action when employees lack capacity					
6. Employees are provided performance based feedback and counseling					

Annex 6: Employee perception about work design

Employee perception about work design	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. Designing of work is adopted to progress activities					
2. Arrangement of work is core function to success construction projects performance					
3. Job design is an effective tool for the enhancement of employees' job satisfaction, motivation of workers, and ultimately the increase of employees' performance and productivity					
4. Involved in decision-making at workplace					
5. Satisfaction with work to perform well					

Annex 7: Employee perception about compensation system and reward

Compensation system and reward	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. Pay of employees is directly linked to performance.					
2. Reward system based on performance					
3. Satisfied with the amount of pay and other benefits I receive					
4. Good job is noticed and rewarded					
5. Appreciate rewards and recognition					

Annex 8: Employee perception about Construction project performance

Construction project performance	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
1. Tasks performed within the expected time					
2. Performed within the expected budget					
3. Improvement of quality					
4. Performance of task productivity/output					
5. Customer satisfaction					