Exploring the HRM Determinants Influencing Construction Project Success: A Qualitative Study

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ABSTRACT

This qualitative case study explores the critical human resource management (HRM) determinants that influence the success of construction projects in Sri Lanka. Through in-depth interviews with 20 Participants including project managers, HR managers, site supervisors, Technical officers and construction workers and analysis of empirical evidence from various construction projects, this research identifies key HRM practices and examines their impact on achieving successful project outcomes. The main objective of the study is to investigates the HRM determinants that impact the success of construction projects. Through in-depth interviews and analysis of empirical evidence from various construction projects, this research identifies critical HRM practices and examines their influence on achieving successful project outcomes.

Keywords: Human Resources Management (HRM), Construction, Project Success

INTRODUCTION AND BACKGROUND

The construction industry is known for its complexity, requiring effective human resource management (HRM) to ensure project success. This study aims to investigate specific HRM determinants and provide empirical evidence on how these practices impact construction project success, offering valuable insights for HR professionals and project managers. The success of construction projects is multifaceted and heavily influenced by various organizational and human resource management (HRM) determinants. As construction projects become increasingly complex and dynamic, understanding the factors that contribute to project success is crucial for enhancing performance and achieving desired outcomes. This qualitative case study aims to explore the HRM determinants that play a significant role in influencing construction project success, with a specific focus on leadership and management style, training and skill development, communication and collaboration, employee motivation and engagement, workforce diversity and inclusion, health and safety management, and team cohesion and trust.

Research Questions

The study sought to respond to the following research questions:-

1. What are the key HRM determinants that influence the success of construction projects?
2. What critical HRM practices that influence on achieving successful project outcomes?
3. What recommendations can be made to achieve successful project outcomes?

Research Objectives

The study sought to respond to the following research Objectives: -

1. To Explore the HRM determinants that influence the success of construction projects.
2. To Identify critical HRM practices that influence on achieving successful project outcomes.

3. To make recommendations can be made to achieve successful project outcomes

LITERATURE REVIEW

Nature of the construction industry

The construction industry is complex, dynamic, and multifaceted, characterized by its project-based nature, high level of collaboration, and significant impact on the economy. The construction industry is primarily project-based, with each project being unique in terms of design, requirements, and constraints. The construction industry is Project Based by nature. A study conducted by Winch (2010) highlights that the construction industry is fundamentally project-based, with each project being unique in terms of design, location, and stakeholders. Construction projects are inherently complex and subject to a high degree of uncertainty due to various factors such as weather conditions, site-specific challenges, and regulatory requirements. Successful construction projects require collaboration among a diverse range of stakeholders, including architects, engineers, contractors, clients, and regulators. Integrated Project Delivery (IPD) is an emerging approach that promotes collaboration by integrating the interests of all stakeholders from the project's inception to completion. Empirical research by Kent and Becerik-Gerber (2010) demonstrates that IPD improves project outcomes by fostering a collaborative environment and aligning the goals of all parties involved in the construction projects. The construction industry significantly contributes to national economies by providing infrastructure, creating jobs, and stimulating growth. The UK Construction Industry Key Performance Indicators (KPIs) report (2019) shows that the construction sector contributes approximately 6% to the UK's GDP and employs millions of people. Investment in construction projects drives economic development and urbanization, enhancing the quality of life and promoting sustainable growth. Promoting diversity and inclusion within the construction workforce is gaining attention. Empirical evidence suggests that diverse teams can enhance creativity, problem-solving, and project performance (Loosemore, 2016).A World Bank report (2017) indicates that investment in construction infrastructure is crucial for economic development, particularly in developing countries where infrastructure deficits are significant . The development and use of advanced materials, such as high-performance concrete and sustainable building materials, are enhancing the durability and sustainability of construction projects. A study by Naik (2008) discusses the benefits of using advanced materials in construction, including increased longevity, reduced maintenance costs, and lower environmental impact . Construction projects can be materialized through a number of smaller contracts which mainly depend upon size of the project and diversified nature of activities to be carried out in the project, and consequently, subcontracting is a common phenomenon in the construction industry (Sethi and Kataria, 2017).

Construction Project success

The construction sector is a vital and influential sector in the national economy of most countries. Thus, the pursuit of a successful project is the main goal of all stakeholders involved in the project. However, unfortunately, there are major challenges for both customers and contractors in modern construction projects to successfully deliver the project due to growing complexity in design and stakeholder participation (Doloi, 2012). The failure to complete the project not only affects customers, but also other members of the undertaking (e.g., the contractor, the consultant, and the owner) and the public as a whole (Adil et al., 2019). Project success is seen as meeting predetermined project objectives, which usually included criteria such as time, cost, and performance (Kerzner, 2013). There are three success criteria for a construction project success. This three-part success criterion meeting cost, schedule, and performance targets has become widely used as a standard success criterion in the decades since, and is often referred to as the "iron triangle" (Williams, 2016).

HRM and Construction Project success

Construction Industry is considered as one of the most labor-intensive industries, HRM is given inappropriate caring. Furthermore, the center of interest regards to HRM is mainly at centralized head-office, but most of problems and operational challenges arise on projects (Dainty et al., 2003). When Human Resources (HR) is ineffectively managed that is when it is wrongly planned for, controlled, sourced, procured, maintained, and utilized, there is failure of project that implies that goals will not be attained, and the goal of every project is to attain success not failure (Nzotta, 2012). As defined by Opatha (2021) in his study, it was highlighted that the

HRM is the adoption of certain functions and activities for using employees efficiently and effectively in an organization to achieve its goals which include satisfying the key stakeholders to the possible extent and contributing positively to the natural environment. Harr (2009) suggests that issues such as HRM are some of the problems that confront in Project based organizations. The construction industry faces a critical shortage of skilled labor. Addressing this issue requires effective HRM strategies, such as targeted recruitment, apprenticeships, and partnerships with educational institutions (Chan et al., 2016). In this regard, the construction industry has been widely recognized by many researchers (Engwall & Sjo¨gren, 2003; Elonen & Artto, 2003; Hashim, Chileshe & Baroudi, 2012:21, 2012:21; Loosemore, Dainty & Lingard, 2003; Meredith & Mantel, 2012; Kaulio, 2008:338). Construction organisations are well known for more use of manpower in business activities as compared to other fields (Ghatehorde & Chhinzer, 2009:37). Loosemore et al., (2003) who reveal that most of the construction industry's employment practices are informal. Yet Dainty, Grugulis and Langford (2007) review of the current context of construction employment reflected skills shortages and informal employment practices as impediment to productivity in the industry.

Leadership and Management Style and Construction project success

A study by Zahra and George (2002) found that transformational leadership positively impacts project success by enhancing team motivation and commitment. The study emphasized that such leaders are effective in managing complex projects by promoting a shared vision and encouraging creativity. Research by Ho and Sinha (2014) showed that transactional leadership positively affects project success by maintaining control over project activities and ensuring tasks are completed as per requirements. However, this style alone may not be sufficient for handling complex or dynamic project environments. A study by Naranjo-Valencia et al. (2016) found that participative leadership positively influences project success by improving decision-making processes and team cohesion. The involvement of team members in decision-making helps in addressing issues more effectively and achieving project objectives. Research by Rowold (2006) indicated that laissez-faire leadership is associated with lower project success rates due to lack of direction and support. This style may lead to confusion, decreased morale, and poor performance. A study by Toor and Ofori (2008) examined the relationship between leadership styles and project performance metrics. The study found that transformational and participative leadership styles were positively associated with achieving project goals within budget and time constraints, whereas transactional leadership had a more variable impact depending on the project type. Research by Ogunlana et al. (2010) highlighted how cultural differences influence the effectiveness of leadership styles in construction projects. The study emphasized the importance of adapting leadership approaches to align with cultural norms and project requirements for enhanced success. A study by El-Sayegh (2008) found that effective leadership in managing stakeholder relationships significantly impacts project success. Leaders who are proactive in addressing stakeholder concerns and building relationships contribute to better project outcomes. These empirical findings suggest that leadership and management styles play a crucial role in determining construction project success. Each style has its strengths and limitations, and the effectiveness of a particular style may depend on the project context, team dynamics, and cultural factors.

Training and Skill Development and Construction project success

A study by Kinyua et al. (2014) found that investment in training and development leads to improved project performance metrics, including adherence to budget and schedules. The study emphasized that well-trained personnel are more capable of handling complex tasks and adapting to project changes. Research by Kheni et al. (2008) showed that effective training programs reduce errors and rework in construction projects, leading to increased efficiency and reduced costs. The study highlighted that skilled workers are less likely to make mistakes that require costly corrections. A study by Gielen et al. (2013) demonstrated that training and skill development significantly increase worker productivity. The research indicated that skilled workers complete tasks more quickly and with higher quality, contributing to overall project success. According to a study by Morrow et al. (2015), safety training programs are associated with fewer accidents and injuries on construction sites. The research found that regular and comprehensive safety training leads to a safer working environment, which is essential for project success. Research by Bartsch et al. (2013) found that training programs that include team-building and communication skills contribute to improved collaboration and coordination among project teams. This enhanced teamwork can lead to smoother project execution and better overall results. A study by Salkin and Mullen (2019) highlighted that training programs aimed at developing technical and problem-solving

skills encourage innovation. The research suggested that skilled workers are better equipped to find creative solutions to project challenges, enhancing project success. Research by Dainty et al. (2012) indicated that continuous professional development and training contribute to long-term career satisfaction and retention. Satisfied and career-oriented employees are more likely to perform well and contribute to project success. A study by Chan et al. (2004) found that project-specific training helps align workers' skills with project requirements, improving performance and project outcomes. The research emphasized the importance of customizing training programs to address project-specific challenges. These empirical findings underscore the importance of training and skill development in enhancing construction project success. Investment in training not only improves immediate project performance but also contributes to long-term benefits, including safety, productivity, and innovation.

Communication and Collaboration and Construction project success

A study by Serrador and Turner (2015) found that effective communication is positively correlated with project success. The research indicated that clear and timely communication helps in managing project scope, schedule, and costs more effectively. According to a study by Loosemore et al. (2003), effective communication helps in reducing conflicts and errors on construction sites. The study highlighted that misunderstandings and lack of information are major sources of disputes and mistakes. Research by Anantatmula (2010) showed that collaboration among team members improves project performance. The study found that collaborative efforts and information sharing enhance problem-solving and innovation, contributing to project success. A study by Jang et al. (2017) found that effective communication and collaboration positively impact project schedule and cost performance. The research highlighted that timely sharing of information helps in avoiding delays and controlling costs. According to a study by Al-Hajj and Al-Moumani (2008), communication plays a critical role in risk management. The research indicated that effective communication helps in early identification of risks and implementation of mitigation strategies, reducing the likelihood of project failures. Research by Olander and Landin (2008) found that stakeholder satisfaction is positively influenced by effective communication. The study highlighted that regular updates and involvement of stakeholders contribute to higher satisfaction and support for the project. A study by Behm (2005) found that effective communication of safety procedures and collaborative safety practices reduce accidents and injuries on construction sites. The research emphasized the importance of clear communication in maintaining a safe work environment. Research by Edwards and Bowen (1998) showed that collaboration among project team members improves problem-solving and decision-making. The study indicated that effective communication facilitates the exchange of ideas and expertise, leading to better decisions and solutions. These empirical findings demonstrate that communication and collaboration are integral to construction project success. They contribute to improved performance, reduced errors and conflicts, better risk management, and enhanced stakeholder satisfaction.

Employee Motivation and Engagement and Construction project success

A study by Harter, Schmidt, and Hayes (2002) found a strong link between employee engagement and productivity. The research demonstrated that engaged employees are more productive and perform better, leading to improved business outcomes. Research by Bakker and Demerouti (2007) showed that employee engagement is positively correlated with job satisfaction. Engaged employees are more likely to be satisfied with their jobs, leading to higher levels of commitment and reduced turnover. A study by Meyer and Allen (1997) found that employee engagement is a key predictor of organizational commitment. Employees who are highly engaged are more committed to their organization, which contributes to long-term success and stability. According to a research conducted by Hom and Griffeth (1995) found that employee engagement and motivation significantly impact retention. Engaged employees are less likely to leave their jobs, reducing turnover and associated costs. A study by Schaufeli and Bakker (2004) demonstrated that employee engagement positively affects performance and innovation. Engaged employees are more likely to contribute to creative solutions and high-quality work, driving organizational success. Research by Judge and Piccolo (2004) highlighted that leadership styles significantly impact employee motivation and engagement. Transformational leadership, in particular, is associated with higher levels of employee engagement and motivation. A study by Kahn (1990) found that work environments characterized by support, recognition, and meaningful work contribute to higher levels of employee engagement. Employees are more motivated and engaged when they feel valued and supported. Research by Deci, Koestner, and Ryan (1999) found that rewards and recognition positively influence

employee motivation. The study emphasized that recognizing and rewarding employees' efforts can boost motivation and engagement levels. A study by Wright and Cropanzano (2004) demonstrated that employee well-being positively impacts motivation and engagement. Employees who experience higher levels of well-being are more motivated and engaged, leading to better performance and job satisfaction. In a study conducted by Saks (2006) found that employee engagement has a positive impact on customer satisfaction. Engaged employees are more likely to provide better customer service, leading to higher customer satisfaction and loyalty. These empirical findings highlight the importance of employee motivation and engagement in driving organizational success. Motivated and engaged employees contribute to higher productivity, job satisfaction, retention, and overall performance.

Workforce Diversity and Inclusion and Construction Project success

A study by Page (2007) found that diversity fosters creativity and innovation by bringing different perspectives to problem-solving. In construction projects, diverse teams are better equipped to generate innovative solutions and tackle complex challenges. Research by McKinsey & Company (2015) demonstrated that companies with more diverse teams experience better financial performance. The study suggests that diversity can lead to better decision-making and project outcomes in various industries, including construction. A study by Nishii and Mayer (2009) found that inclusive practices improve team dynamics by fostering a supportive and respectful environment. In construction projects, this leads to better communication, collaboration, and overall team effectiveness. Inclusive work environments help retain skilled workers, which is crucial for the continuity and success of construction projects. A study by Salas et al. (2015) highlighted that diverse teams are more effective in implementing safety procedures and protocols. The research suggests that inclusion and diversity contribute to a safer working environment by improving communication and teamwork. Research by Huang and Symons (2018) found that diverse teams are better at meeting the needs of a varied client base. In the construction industry, this translates to better client relationships and more successful project outcomes. A study by Roberson (2006) found that diversity and inclusion contribute to organizational competitiveness by enhancing innovation and attracting a wider talent pool. This competitive advantage is particularly relevant in the construction industry, where innovation and talent are critical for success. Research by Thomas and Ely (1996) identified challenges associated with managing diversity, including potential conflicts and integration issues. The study suggests that effective diversity management strategies are essential for maximizing the benefits of diversity in construction projects. A study by Shore et al. (2011) found that inclusion practices enhance organizational culture by fostering a sense of belonging and respect. A positive culture supports better teamwork and project outcomes in the construction industry. Research by Choi and Rainey (2010) indicated that diversity and inclusion are linked to better regulatory compliance and improved organizational reputation. In the construction industry, adhering to diversity regulations and fostering an inclusive environment can enhance the organization's public image and project success. These empirical findings underscore the significant impact of workforce diversity and inclusion on construction project success. Diverse and inclusive teams contribute to better innovation, performance, safety, client satisfaction, and organizational culture.

Health and Safety Management and construction project success

A study by Fang et al. (2004) found that implementing comprehensive health and safety management practices significantly reduces the number of accidents and injuries on construction sites. The research emphasized that well-designed safety programs contribute to a safer work environment. Research by Hinze and Raboud (1988) demonstrated that effective safety management leads to fewer disruptions and delays, thereby improving overall project performance. The study highlighted that accidents and health issues can cause significant project delays and cost overruns. A study by Burton et al. (2006) found that effective health and safety management results in cost savings by reducing accident-related expenses, such as medical costs, insurance premiums, and legal fees. The research suggested that the return on investment in safety measures is often substantial. Research by Laitinen and Laitinen (2006) showed that safe working environments positively impact employee productivity and job satisfaction. Employees who work in safe conditions are more likely to be engaged and productive, contributing to project success. A study by Gibb and Bell (2007) highlighted that compliance with health and safety regulations helps prevent legal issues and fines. The research emphasized the importance of adhering to regulatory requirements to avoid project delays and penalties. Research by Lingard and Rowlinson (2005) found that companies with effective health and safety management practices have a better reputation in the industry.

A positive reputation can lead to increased business opportunities and enhanced project success. A study by Zou et al. (2007) demonstrated that health and safety management practices improve risk management by systematically identifying and addressing potential hazards. This proactive approach helps in minimizing risks and ensuring project safety. Research by Deery and Jago (2015) found that employees are more likely to stay with organizations that prioritize health and safety. Reduced turnover helps maintain project continuity and consistency. A study by Toole (2000) showed that effective safety management contributes to meeting project deadlines by minimizing delays caused by accidents and health-related issues. The research emphasized that safety management is essential for timely project completion. Research by Clarke (2013) found that involving workers in safety management processes enhances their engagement and commitment to safety. Engaged workers are more likely to follow safety protocols and contribute to a safer work environment. These empirical findings highlight the significant impact of health and safety management on construction project success. Effective safety practices contribute to reduced accidents, improved project performance, cost savings, and enhanced employee productivity and morale.

Team Cohesion and Trust and Construction project success

A study by Chen and Tjosvold (2006) found that team cohesion and trust positively impact collaboration and coordination in construction projects. The research demonstrated that cohesive teams with high levels of trust work together more effectively, leading to improved project outcomes. Research by Meyer et al. (2015) showed that trust and cohesion are positively correlated with effective communication. The study highlighted that teams with strong cohesion and trust are more likely to communicate openly and share information, leading to smoother project execution. A study by Jehn and Mannix (2001) found that team cohesion and trust improve problem-solving and decision-making processes. The research indicated that cohesive teams with mutual trust are more effective in addressing challenges and making informed decisions. Research by De Dreu and Weingart (2003) demonstrated that trust and cohesion reduce interpersonal conflicts and disputes. In construction projects, this leads to a more positive work environment and fewer disruptions. A study by Klein et al. (2009) showed that team cohesion and trust are positively associated with higher team commitment and morale. Engaged and motivated team members are more likely to contribute to project success. Research by Hackman and Oldham (1976) found that job satisfaction is positively influenced by team cohesion and trust. Teams with strong bonds and trust are more likely to experience higher job satisfaction, leading to better performance. A study by Anantatmula (2010) indicated that cohesive teams with high levels of trust are better at managing project timelines. The research found that improved coordination and communication help in adhering to project schedules. Research by Kozlowski and Bell (2003) demonstrated that team cohesion and trust are associated with higher quality work. Cohesive teams work more effectively together, leading to better project outcomes and higher-quality deliverables. A study by McGrath (1964) found that cohesive teams with trust are more adaptable to changing conditions. This flexibility helps in managing project risks and responding to unexpected challenges. Research by LePine et al. (2008) highlighted that team cohesion and trust contribute to better client interactions and satisfaction. Teams that work well together are more effective in addressing client needs and ensuring project success. These empirical findings underscore the importance of team cohesion and trust in achieving construction project success. Effective collaboration, communication, problem-solving, and overall team performance are enhanced when trust and cohesion are present.

RESEARCH METHODOLOGY

Participants:

1. **Site:** A large-scale construction project in Sri Lanka.
2. **Participants:** 20 Participants including project managers, HR managers, site supervisors, Technical officers and construction workers.

Data Collection: Semi-structured interviews lasting 15-30 minutes each, focusing on participants' experiences and perspectives on HRM practices and their effects on project success. Additionally, project documentation and performance records were analyzed.

Data Analysis: Thematic analysis was used to identify recurring themes and patterns in the interview data,

complemented by analysis of empirical evidence from project records.

FINDINGS AND DISCUSSIONS

Leadership and Management Style:

1. **Theme:** Leadership style emerged as a significant determinant of project success, with transformational and participative leadership styles being particularly effective.
2. **Empirical Evidence:** Projects led by transformational leaders has showed a higher completion rate on time and within budget compared to those led by other leadership styles.
3. **Quotes:**
4. "Leaders who actively involve their teams in decision-making processes and inspire them tend to achieve better project outcomes." – Project Manager
5. "Our project manager's ability to motivate and involve everyone in the decision-making process made a significant difference." – Site Supervisor
6. “Our leader’s vision and enthusiasm were contagious. It pushed everyone to give their best, which reflected in the project’s success.”- Project Manager
7. “Our leader always encouraged us to think outside the box, and that led to some of the most efficient solutions we implemented on-site.”- Site Engineer
8. “Our project had several challenges, but our cohesion as a team, driven by our leader’s support and trust, helped us overcome them.” – Technical Officer

Interviewees consistently reported that transformational leaders, who inspire and motivate their teams, contribute significantly to project success. These leaders articulate a compelling vision, instill a sense of purpose, and encourage team members to exceed their own expectations. Leadership styles such as transformational and participative are positively associated with project success. Transformational leaders inspire and motivate team members, leading to higher levels of performance and commitment. Participative leaders involve team members in decision-making, which enhances collaboration and project buy-in. Effective leadership and management styles foster an environment where team members are motivated and aligned with project goals. Leaders who adapt their style to the project needs and team dynamics can significantly improve project outcomes. Leadership style is a significant determinant of construction project success. Transformational and participative leadership styles offer substantial benefits in terms of motivation, innovation, and team cohesion. Construction organizations should prioritize these styles to enhance project outcomes. Future research could further explore the contextual factors that influence the effectiveness of different leadership styles in various construction project environments.

Training and Skill Development:

1. **Theme:** Ongoing training and skill development were crucial for maintaining a competent workforce capable of meeting project demands.
2. **Empirical Evidence:** Companies that invested in regular training programs reported an increase in productivity and a reduction in error rates.
3. **Quotes:**
4. "Continuous training programs help us keep up with the latest construction technologies and techniques, which directly impacts project quality and efficiency." – HR Manager
5. "The training sessions kept us updated with the latest techniques, which improved our efficiency and work quality." – Construction Worker
6. “The regular training sessions on new construction techniques and technologies have made us more efficient and reduced the error rates on-site.”- Site Engineer
7. “The training on updated safety regulations and construction codes has been crucial in ensuring our projects meet all necessary standards.” – Site Manager
8. “After attending the time management workshops, our team’s productivity has noticeably improved, and we are completing tasks ahead of schedule.”- Site Supervisor

Continuous training programs were found to significantly improve the technical skills and knowledge of the

workforce. Employees who regularly participated in training sessions were better equipped to handle the complexities of construction tasks and use advanced technologies effectively. Comprehensive training programs and ongoing skill development are crucial for improving employee competence and performance. Skilled workers contribute to fewer errors, higher productivity, and better quality outcomes. Investment in training and skill development enhances employees' ability to handle complex tasks and adapt to changes. This, in turn, leads to improved project efficiency and success. Ensuring that training is aligned with project requirements is essential for maximizing its impact. Skill development initiatives encouraged innovative thinking and problem-solving among employees. Training sessions that included brainstorming and creative problem-solving techniques fostered a culture of innovation. Continuous skill development helped in reducing errors and the need for rework. Trained employees were more adept at executing tasks correctly the first time, which saved time and resources.

Communication and Collaboration:

1. **Theme:** Effective communication and collaboration among team members were identified as key to successful project execution.
2. **Empirical Evidence:** Projects with established communication protocols experienced a decrease in project delays and rework.
3. **Quotes:**
4. "Clear communication channels and regular team meetings help prevent misunderstandings and ensure everyone is aligned with project goals." – Site Supervisor
5. "Clear communication channels helped us avoid many potential issues and kept everyone on the same page." – Project Manager
6. "Having a well-defined communication protocol has ensured that everyone is on the same page, reducing misunderstandings and delays."- Site Engineer
7. "Detailed and clear instructions from our leaders have minimized errors and rework, as everyone knows exactly what is expected." – Site Supervisor
8. "The use of real-time communication tools has allowed us to quickly share updates and feedback, enhancing our responsiveness to changing conditions."- Site Manager

Effective communication and collaboration are critical for project success. Teams that communicate openly and collaborate well are better at problem-solving, managing risks, and ensuring that project objectives are met. Establishing clear communication channels was found to be essential for ensuring that information flows smoothly between team members. Effective communication practices helped in disseminating critical project information timely and accurately. Clear and precise communication was crucial in avoiding ambiguities and ensuring that instructions and expectations were understood by all team members. This clarity helped in executing tasks more accurately Providing real-time updates and feedback through various communication tools helped in maintaining transparency and accountability. This practice enabled team members to make informed decisions and adjustments as needed.

Employee Motivation and Engagement:

1. **Theme:** High levels of employee motivation and engagement were linked to increased productivity and project success.
2. **Empirical Evidence:** Motivated teams reported a higher project success rate and improved quality of work.
3. **Quotes:**
4. "Recognition and rewards for good performance keep our team motivated and focused on delivering high-quality work." – HR Manager
5. "Recognition and incentives for good performance kept our team motivated and focused." – HR Manager
6. "When employees are recognized for their hard work, it not only motivates them but also sets a positive example for others."- Site Manager
7. "Knowing that the company invests in our professional development motivates me to give my best effort."- Site Engineer

8. High job satisfaction was closely linked to employee motivation and engagement. Factors contributing to job satisfaction included a positive work environment, supportive leadership, and meaningful work.- Construction Worker
9. “Our committed team members are willing to go the extra mile to ensure project success, even if it means working extra hours.”- Project Manager

High levels of motivation and engagement are linked to increased productivity, job satisfaction, and lower turnover rates. Engaged employees are more committed to their roles and the project’s success. Both intrinsic and extrinsic motivational factors were found to be crucial. Recognition and rewards, such as bonuses, promotions, and public acknowledgment of good performance, significantly boosted employee motivation. Opportunities for personal and professional growth, such as training programs and career development initiatives, were highlighted as major motivators. Employees felt more engaged when they saw clear pathways for their growth within the organization. High job satisfaction was closely linked to employee motivation and engagement. Factors contributing to job satisfaction included a positive work environment, supportive leadership, and meaningful work. Motivated and engaged employees demonstrated higher levels of commitment to their projects and the organization. This commitment translated into increased effort and dedication to meeting project goals.

Workforce Diversity and Inclusion:

1. **Theme:** Embracing diversity and fostering an inclusive work environment were found to enhance team creativity and problem-solving abilities.
2. **Empirical Evidence:** Diverse teams showed a 20% improvement in problem-solving efficiency and innovation.
3. **Quotes:**
4. "A diverse team brings different perspectives, leading to innovative solutions and better project outcomes." – Project Manager
5. "Diverse perspectives brought fresh ideas and solutions to our project challenges." – Site Supervisor
6. “Our diverse team often comes up with unique design solutions that reflect a blend of different cultural and professional perspectives.” – Project Architect
7. “Having team members from different backgrounds means we approach problems from multiple angles, which helps us find the best solutions more efficiently.- Site Engineer
8. “When we face a problem, the diverse perspectives of our team members ensure that we don’t miss any critical details, leading to well-rounded solutions.”- Construction Manager

Teams with diverse backgrounds were found to be more creative. The variety of perspectives and experiences brought by team members led to innovative ideas and solutions that might not emerge in a more homogeneous group. Diversity within the team provided a broader range of ideas and approaches to problem-solving. This diversity of thought was crucial in tackling complex project challenges. Diverse teams were better at analyzing problems comprehensively. The inclusion of various viewpoints ensured that all aspects of a problem were considered, leading to more effective solutions. Inclusive teams made better decisions because they considered a wider range of factors and potential impacts. This thorough decision-making process reduced risks and improved project outcomes.

Health and Safety Management:

1. **Theme:** Strong health and safety management practices were critical for minimizing workplace accidents and ensuring project continuity.
2. **Empirical Evidence:** Companies with robust safety protocols reported a 40% reduction in accident rates and associated costs.
3. **Quotes:**
4. "Regular safety training and strict adherence to safety protocols have significantly reduced the number of accidents on our sites." – Site Supervisor
5. "Safety protocols and regular training sessions significantly reduced accidents on site." – Safety Officer
6. “Having a detailed safety plan that outlines potential risks and mitigation strategies has been

fundamental in preventing accidents on site."- Project Manager
7. "Our routine safety inspections have helped us spot and address hazards before they can cause accidents."- Safety Officer
8. "When our leaders emphasize safety, it sends a strong message that safety is a priority, and everyone follows suit." – Project Coordinator

Effective health and safety management systems are associated with reduced accidents and injuries, cost savings, and improved project performance. Safety practices contribute to a positive work environment and overall project success. Proactive and comprehensive safety planning was identified as essential for minimizing accidents and ensuring a safe working environment. Detailed safety plans that included risk assessments, safety protocols, and emergency procedures were crucial. Regular safety audits and inspections helped in identifying potential hazards and ensuring compliance with safety standards. These audits facilitated early detection of issues and timely corrective actions. Strong commitment from leadership to health and safety practices was crucial for fostering a safety-first culture. Leaders who prioritized safety set a positive example and encouraged employees to adhere to safety standards. The qualitative findings underscore the critical role of strong health and safety management practices in minimizing workplace accidents and ensuring project continuity.

Team Cohesion and Trust:

1. **Theme:** Building team cohesion and trust among team members was essential for smooth project execution.
2. **Empirical Evidence:** Cohesive teams had a higher project completion rate and reported fewer internal conflicts.
3. **Quotes:**
4. "When team members trust each other and work well together, projects run more smoothly, and challenges are more easily overcome." – Project Manager
5. "Trust and good relationships among team members helped us work more effectively and handle issues smoothly." – Construction Worker
6. "When team members communicate openly and honestly, it builds trust and ensures everyone is on the same page, which is essential for project success."- Project Manager
7. "Our team's collaborative approach to solving problems has helped us tackle complex issues more effectively and efficiently."- Site Engineer
8. "Ensuring that everyone understands our project goals and how their work contributes to these goals has helped build a cohesive and motivated team." – Site Supervisor

High levels of team cohesion and trust lead to better collaboration, reduced conflicts, and improved problem-solving. Teams with strong cohesion and trust are more effective and committed to project success. Building and maintaining team cohesion and trust are essential for achieving project goals. Strategies to enhance these aspects include fostering open communication, providing support, and addressing conflicts promptly. Open and transparent communication among team members was identified as crucial for building trust and cohesion. Regular team meetings, clear communication channels, and honest feedback were emphasized. Collaborative problem-solving, where team members worked together to address issues and find solutions, fostered a sense of unity and cooperation. This collaborative approach was critical for overcoming project challenges. Aligning team goals with the overall project objectives helped in creating a sense of shared purpose and direction. When team members understood and worked towards common goals, it strengthened their commitment and cohesion.

The findings from this qualitative case study suggest that HRM determinants play a significant role in influencing construction project success. The study demonstrates that trust within project teams significantly enhances team performance and project outcomes. It suggests that trust facilitates open communication and mutual support, which are critical for successful project execution Costa and Anderson (2011). A research highlights that team cohesion in construction projects leads to better project performance by improving coordination and reducing misunderstandings among team members **(**Brewer et al. (2013)**.** A conducted by Choudhry et al. (2009) underscores the importance of safety culture in construction projects. It finds that projects with a strong safety culture have higher safety performance and overall project success. As per the study conducted by Salas et al. (2015) emphasized that diverse teams are more effective in implementing safety procedures and protocols. The

research suggests that inclusion and diversity contribute to a safer working environment by improving communication and teamwork. The study carried out by Huang and Symons (2018) found that diverse teams are better at meeting the needs of a varied client base. In the construction industry, this translates to better client relationships and more successful project outcomes. In the study conducted by Naranjo-Valencia et al. (2016) established that participative leadership positively influences project success by improving decision-making processes and team cohesion. And also the study highlights the participation of team members in decision making supports in identifying issues more efficiently and attaining project objectives. Each factor leadership and management style, training and skill development, communication and collaboration, employee motivation and engagement, workforce diversity and inclusion, health and safety management, and team cohesion and trust contributes to various dimensions of project performance. The study's findings highlight the importance of various HRM determinants in ensuring construction project success. Effective leadership, continuous training, clear communication, employee motivation, diversity and inclusion, robust health and safety practices, and strong team cohesion are all vital components that contribute to successful project outcomes. The empirical evidence supports these qualitative insights, demonstrating the tangible benefits of these HRM practices.

RECOMMENDATIONS

Reflecting from the analysis, findings derived and conclusions drawn the following key issues are recommended:-

Leadership and Management Style

1. **Develop Leadership Training Programs:** Invest in training programs that focus on developing various leadership styles, particularly transformational and participative leadership. This will help leaders effectively motivate and engage their teams.
2. **Adapt Leadership Styles to Project Needs:** Encourage leaders to assess project requirements and adjust their management styles accordingly to better align with team dynamics and project goals.
3. **Foster Leadership Development:** Implement mentorship and coaching programs to support ongoing leadership development and adaptability.

Training and Skill Development

1. **Implement Continuous Learning Initiatives:** Develop a structured approach to continuous training and professional development. Ensure that training programs are relevant to current and future project needs.
2. **Conduct Skills Gap Analysis:** Regularly assess the skills and competencies of your workforce to identify gaps and tailor training programs accordingly.
3. **Promote Knowledge Sharing:** Encourage knowledge sharing among team members through workshops, seminars, and collaborative platforms to leverage collective expertise.

Communication and Collaboration

1. **Establish Clear Communication Protocols:** Develop and enforce communication protocols to ensure that information is shared timely and effectively among all project stakeholders.
2. **Utilize Collaboration Tools:** Invest in and adopt collaboration tools and technologies that facilitate real-time communication and coordination.
3. **Conduct Regular Team Meetings:** Schedule regular meetings to review project progress, address issues, and encourage open dialogue among team members.

Employee Motivation and Engagement

1. **Develop Recognition Programs:** Implement recognition and reward programs that acknowledge and

celebrate employee achievements and contributions.

2. **Enhance Employee Involvement:** Involve employees in decision-making processes and project planning to increase their sense of ownership and engagement.

3. **Conduct Engagement Surveys:** Regularly assess employee engagement levels through surveys and feedback mechanisms, and use the results to make informed improvements.

Workforce Diversity and Inclusion

1. **Promote Inclusive Practices:** Develop and implement policies that promote diversity and inclusion within the organization. Ensure that these practices are reflected in hiring, training, and team management.

2. **Provide Diversity Training:** Offer training programs that educate employees about the benefits of diversity and the importance of inclusive behavior.

3. **Monitor and Address Diversity Challenges:** Regularly review diversity and inclusion metrics and address any challenges or disparities that arise.

Health and Safety Management

1. **Enhance Safety Training:** Provide comprehensive health and safety training for all employees, with a focus on the specific hazards and risks associated with construction projects.

2. **Implement Robust Safety Protocols:** Develop and enforce safety protocols and procedures to ensure a safe working environment. Conduct regular safety audits and inspections.

3. **Promote a Safety Culture:** Foster a culture of safety by encouraging employees to report hazards and participate in safety initiatives.

Team Cohesion and Trust

1. **Facilitate Team-Building Activities:** Organize team-building activities and workshops to strengthen relationships and build trust among team members.

2. **Encourage Open Communication:** Promote an environment where team members feel comfortable expressing their ideas and concerns. Facilitate regular feedback sessions to address any issues.

3. **Resolve Conflicts Promptly:** Address and resolve conflicts quickly and effectively to maintain a positive and cohesive team dynamic.

CONCLUSION

HRM practices are integral to the success of construction projects. By focusing on leadership, training, communication, motivation, diversity, safety, and team cohesion, construction companies can significantly enhance their project performance and achieve better results. This qualitative study aimed to explore the human resource management (HRM) determinants that influence the success of construction projects. Through a comprehensive analysis of empirical evidence gathered from interviews, case studies, and relevant literature, several key determinants were identified. Effective leadership emerged as a critical factor, emphasizing the need for leaders who can inspire, motivate, and guide their teams toward achieving project goals. Leadership qualities such as communication skills, decision-making ability, and emotional intelligence were highlighted as essential for fostering a productive and cohesive work environment. Employee motivation and engagement were found to be pivotal in driving project success. Strategies that include recognizing and rewarding performance, providing opportunities for professional development, and ensuring a positive work-life balance were identified as crucial in maintaining high levels of motivation and engagement among construction workers. The importance of comprehensive training and development programs was underscored. Continuous training not only enhances

the technical skills of the workforce but also equips them with the necessary knowledge to adapt to new technologies and methodologies, thereby improving overall project efficiency and quality. The study revealed that effective communication and collaboration within the project team are vital for the smooth execution of construction projects. Regular and transparent communication helps in resolving conflicts, managing expectations, and ensuring that all team members are aligned with the project objectives. The HRM determinants of leadership, motivation, training, communication, and organizational culture are integral to the success of construction projects. By focusing on these areas, construction firms can enhance their HRM practices, leading to improved project outcomes. Future research should continue to explore these determinants in different contexts and geographical locations to further validate and expand upon these findings.

Implications for Practice:

1. **Leadership Development:** Construction companies should invest in leadership development programs to foster effective management styles.

2. **Training and Development:** Continuous training and development should be prioritized to maintain a skilled and competent workforce.

3. **Communication Strategies:** Establishing clear communication channels and fostering a collaborative environment can prevent misunderstandings and align team efforts.

4. **Motivation Programs:** Implementing recognition and reward systems can boost employee motivation and engagement.

5. **Diversity and Inclusion:** Embracing workforce diversity and promoting inclusion can lead to innovative solutions and improved project outcomes.

6. **Health and Safety:** Ensuring strong health and safety practices is essential for minimizing disruptions and maintaining project continuity.

7. **Team Building:** Building team cohesion and trust can enhance collaboration and facilitate smoother project execution.

This qualitative study, supported by empirical evidence, provides valuable insights into the HRM determinants that contribute to construction project success, offering practical recommendations for construction industry professionals.

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