

# Construction Industry and Human Resource Management: A Conceptual Study

**H.H.D.N.P. Opatha**

Senior Professor and Chair of HRM, Department of HRM,  
University of Sri Jayewardenepura  
[opatha@sjp.ac.lk](mailto:opatha@sjp.ac.lk)

**K.A.D. Olivia**

PhD Researcher,  
University of Sri Jayewardenepura  
[kadolivia@yahoo.com](mailto:kadolivia@yahoo.com)

**G.D.N. Perera**

Professor in HRM,  
University of Sri Jayewardenepura  
[dinokagnp@sjp.ac.lk](mailto:dinokagnp@sjp.ac.lk)

## **Abstract**

*A conceptual study was carried out in respect of construction industry and Human Resource Management (HRM) and to carry out the study was caused by little theoretical and empirical research done, contextual gap and intellectual curiosity of the researchers. Five research questions were formulated and five research objectives were established in line with them. Construction industry was understood as an industry which is significantly different from other industries and a number of specific types of personnel work in the industry. A sufficient functional framework of HRM was developed for the purpose of adopting to describe and explain the generic role of HRM in an organization. The generic role of HRM in organizations engaged in construction industry was outlined and a number of specific considerations in managing personnel working in construction industry were revealed. It is believed that the paper is of theoretical importance and provides some useful insights to practicing managers in the construction industry, particularly in Sri Lanka.*

**Key Words:** Construction Industry, Functional Framework, Human Resource Management, Sri Lanka

## **Introduction**

Dealing with construction by people and organizations is indispensable. People do need homes to live. To have a shelter is a physiological need as per Maslow's Hierarchy of needs (Donnelly, Gibson, and Ivancevich, 1987). Organizations do need buildings, houses, and other infrastructure facilities to run the businesses and related affairs. According to Collins

Birmingham University International Language Database (Cobuild) English Language Dictionary (1987), the term 'Construction' has three meanings (1) the building of buildings, roads, bridges, etc.; (2) the building or making of a machine or other object by joining parts or pieces together; and (3) the creating of something such as an idea, piece of writing, or system. As far as this research paper is concerned, the first meaning is applicable. Thus, construction is the creation of homes, houses, other buildings, roads, bridges, and other related infrastructure facilities (power supplies etc). Construction is the process where contractors build structures that serve a particular purpose such as residential houses, schools, hospitals, public works such as roads, bridges, water and wastewater infrastructure, dams, and railways (Nuzha, 2023). Construction industry consists of all the people, work and processes involved in manufacturing or producing homes, houses, other buildings, roads, bridges, and other related infrastructure facilities. Construction industry refers to the industrial branch of manufacturing and trade related to building, repairing, renovating, and maintaining infrastructures (Hussain, Paulraj, and Nuzhat, 2021).

Human Resource Management (HRM) is a recognized academic discipline as well as a recognized profession locally and internationally too (Opatha, 2021<sup>1</sup>). The inclusive definition of HRM formulated by Opatha (2021<sup>2</sup>, p. 31) is: *“Basically, HRM is the adoption of certain functions and activities for utilizing 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. It involves formulation, implementation, and on-going maintenance of strategies, policies, procedures, rules, practices and systems of managing employees strategically, participatorily, and sustainably.”* HRM has become an indispensable practice in any organization engaged in any industry because of the reason that it provides a set of impactful solutions to create and enhance success and progress of success of organizations; and it is the field that is concerned with improving the standards of living of personnel (Opatha, 2019). Sri Lankan literature (Opatha, 2009) presents at least five reasons to highlight the overwhelming importance of HRM for an organization, and they are: (1) Human resources are the most important resource that managers utilize to achieve goals of an organization; (2) Quality of other functional fields of management heavily depends on quality of HRM in an organization; (3) HRM is a vital responsibility of every manager in an organization; (4) HRM contributes to organizational success and then societal success; and (5) Management of employees is more difficult than managing other resources. It is argued that the five reasons are applicable to all organizations engaged in the construction industry. Right HRM makes sure that the organization has employees who are right in terms of job performance, and are not destructive for the organizational success of the organization. Further it ensures that the organization has employees who are appropriately qualified, constantly committed, adequately motivated, and fully engaged. In the construction industry of developing countries, employees account for significant part of the project cost, and cost of employees includes personnel administration, employee training, communication cost, welfare and compensation for health and safety (Ameh and Daniel, 2017). Ameh and Daniel (2017) emphasize that effective HRM will result in a highly motivated workforce of a construction organization leading to high productivity, quality improvement and minimizes cost and time overruns. Very little importance is given to the human resource management

issues in the construction industry (Sethi and Kataria, 2017). It has generally been observed that HRM systems and practices being followed by a considerable number of organizations in our country are at inappropriate level or at least not better (Opatha, 2021<sup>3</sup>).

In this study it is argued that HRM plays a significant role in determining the success and growth of the organizations engaged in construction industry. It seems that little research has been done with regard to the specific types of personnel working in construction industry, their general duties, the generic role of HRM in organizations engaged in construction industry, and the specific considerations in managing personnel working in construction industry. It seems that at least in a developing context there is a theoretical gap in the knowledge of deciding a sufficient framework of HRM which can be adopted to describe and explain the generic role of HRM in an organization. In Sri Lankan context it reveals that the specific considerations in managing personnel working in construction industry have not been researched theoretically and empirically as well. Furthermore, in fact the researchers are curious intellectually to know the specific nature of construction industry and HRM role in achieving organizational success of construction industry.

### **Research Questions and Objectives**

In line with the above-mentioned research gaps five research questions were formulated and they are:

1. What is the nature of construction industry and how does it differ from other industries?
2. What are the specific types of personnel working in construction industry? What are their general duties?
3. What would be a sufficient functional framework of HRM to adopt for describing and explaining the generic role of HRM in an organization?
4. What is the generic role of HRM in organizations engaged in construction industry?
5. What are the specific considerations in managing personnel working in construction industry?

Five objectives were established by being consistent with the five research questions of the study and they are:

1. To explore and describe the nature of construction industry and differentiate it from other industries.
2. To explore and describe the specific types of personnel working in construction industry, and their general duties.
3. To explore and decide a sufficient functional framework of HRM to adopt for describing and explaining the generic role of HRM in an organization.
4. To describe and explain the generic role of HRM in organizations engaged in construction industry.
5. To find out whether there are specific considerations in managing personnel working in construction industry, if then specify them.

## **The Nature of Construction Industry**

The construction industry is characterized by a unique set of attributes that distinguish it from other sectors. 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. This project-based nature demands high flexibility and adaptability from firms and workers. Another specific area in construction industry is complexity in project management. Studies emphasize the need for advanced project management techniques to handle the complexity and interdependencies of construction activities (Winch, 2010). Research by Walker and Lloyd-Walker (2015) emphasizes that the temporary and unique nature of construction projects necessitates a distinct approach to management practices, including team formation, resource allocation, and timeline adherence. The study pointed out that Construction projects are typically one-off endeavors with distinct phases; planning, design, procurement, construction, and commissioning. Each project has its own unique requirements, timelines, and stakeholders. The contribution towards the economy from the construction industry is enormous. The study by Ruddock and Ruddock (2011) demonstrates the significant contribution of the construction industry to the economy. The research shows that the industry not only creates direct employment but also stimulates economic activity through its demand for materials, services, and infrastructure development. Research by Ofori (1990) indicates that the construction industry is a major driver of economic growth, particularly in developing countries, where it supports urbanization and industrialization processes. Further, the study highlights that regulatory and environmental constraints are a special element in the construction industry. Construction activities are subject to extensive regulations related to safety, environmental impact, and zoning laws. Compliance with these regulations is mandatory and can affect project timelines and costs. There is always a Risk and Uncertainty in this industry. A study by Akintoye and MacLeod (1997) analyzes the high levels of risk and uncertainty inherent in construction projects, stemming from factors such as weather conditions, regulatory changes, and client demands. Effective risk management practices are essential to mitigate these uncertainties. Research by Flanagan and Norman (1993) highlights the importance of risk assessment and management strategies in construction. The study suggests that proactive risk identification and mitigation can significantly enhance project success rates. Health and safety play a major role in the construction industry. The industry is highly labor intensive and highly dependent on skilled workforce. The industry relies heavily on a skilled workforce, including carpenters, electricians, plumbers, and masons. Empirical studies indicate a significant demand for skilled labor, with shortages impacting project timelines and quality (Fellows et al, 2002). The study by Lingard and Rowlinson (2005) highlights the critical importance of occupational health and safety in the construction industry. The research shows that safety performance is influenced by factors such as management commitment, worker training, and safety culture. Research by Choudhry et al (2009) emphasizes the need for a strong safety culture and participatory safety practices. The study suggests that involving workers in safety planning and decision-making processes leads to better safety outcomes. Grobler et al (2002) pointed that one unique feature in the industry is Fragmentation and Collaboration. The industry is often fragmented, with numerous stakeholders including owners, contractors, subcontractors, suppliers, and regulatory bodies.

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).

## **The Specific Types of Personnel Working in Construction Industry, and Their General Duties**

Here term Personnel refers to individuals who are employed in various roles within the construction sector. These roles span a wide range of activities and responsibilities, from manual labor to highly specialized technical and managerial positions. Personnel in this industry are essential for the planning, execution, and completion of construction projects, which include residential, commercial, industrial, and infrastructure developments.

**Exhibit 1. Specific Types of Personnel in Construction Industry and Their General Duties**

<b>Number</b>	<b>Type</b>	<b>General Duties</b>
<b>01</b>	<b>Project Manager</b>	<ul style="list-style-type: none"> <li>• Overall responsibility for planning, executing, and closing projects.</li> <li>• Develop project plans including timelines, budgets, and resources.</li> <li>• Coordinate and communicate with stakeholders including clients, contractors, and team members.</li> <li>• Monitor project progress and performance, ensuring adherence to schedules and budgets.</li> <li>• Risk management including identifying and mitigating potential project risks.</li> <li>• Ensure compliance with safety regulations and quality standards.</li> </ul>
<b>02</b>	<b>Construction Manager</b>	<ul style="list-style-type: none"> <li>• Oversee daily operations on the construction site.</li> <li>• Supervise subcontractors and construction workers.</li> <li>• Ensure work is carried out according to plans, specifications, and codes.</li> <li>• Manage site logistics including material deliveries and equipment management.</li> <li>• Implement and enforce safety protocols.</li> <li>• Resolve on-site issues and conflicts promptly.</li> </ul>
<b>03</b>	<b>Site Engineer</b>	<ul style="list-style-type: none"> <li>• Provide technical advice and quality control for construction activities.</li> <li>• Interpret architectural and engineering plans and ensure they are followed correctly.</li> <li>• Conduct site inspections and surveys.</li> <li>• Coordinate with other engineers, architects, and contractors.</li> <li>• Monitor construction progress and ensure work complies with design specifications and safety standards.</li> <li>• Prepare reports and documentation.</li> </ul>
<b>04</b>	<b>Architect</b>	<ul style="list-style-type: none"> <li>• Design and plan building structures and spaces.</li> <li>• Develop detailed drawings and specifications.</li> <li>• Consult with clients to understand their requirements and preferences.</li> <li>• Coordinate with engineers and construction professionals to ensure feasibility.</li> <li>• Oversee the aesthetic aspects and ensure designs meet regulatory and safety standards.</li> <li>• Conduct site visits to monitor construction and resolve design-related issues.</li> </ul>

05	<b>Quantity Surveyor</b>	<ul style="list-style-type: none"> <li>• Prepare cost estimates and budgets for construction projects.</li> <li>• Conduct cost analysis and value engineering.</li> <li>• Manage procurement of materials and services.</li> <li>• Administer contracts and manage financial aspects of construction projects.</li> <li>• Measure and value work done on-site.</li> <li>• Prepare and manage project cash flows and financial reports.</li> </ul>
06	<b>Structural Engineer</b>	<ul style="list-style-type: none"> <li>• Design and analyze structural components of buildings and infrastructure.</li> <li>• Ensure structures can withstand loads and forces.</li> <li>• Prepare detailed structural drawings and calculations.</li> <li>• Coordinate with architects and construction teams.</li> <li>• Conduct inspections to ensure structural integrity during and after construction.</li> <li>• Investigate and diagnose structural problems.</li> </ul>
07	<b>Technical Officer</b>	<ul style="list-style-type: none"> <li>• Provide technical assistance</li> <li>• Prepare technical documents</li> <li>• Generate regular reports on project progress, technical issues, and compliance</li> <li>• Conduct regular inspections to ensure that construction work adheres to project specifications, codes, and standards.</li> <li>• Investigate accidents and incidents and recommend corrective actions.</li> <li>• Assist in monitoring project budgets and costs</li> </ul>

In addition to the above given specific types of personnel working in the construction industry, some other personnel include electrical engineer, mechanical engineer, electrician, plumber, mason, painter, construction labourer or assistant, crane operator, heavy equipment operator, accountant, procurement officer, health and safety officer, and construction foreman. The construction industry encompasses a wide range of roles, each with specific duties essential for the successful completion of projects. Effective collaboration and communication among these roles are critical for ensuring that projects are delivered on time, within budget, and to the required quality and safety standards.

### **A Functional Framework of HRM**

As defined by Opatha (2021<sup>2</sup>) and mentioned in the introduction, basically, HRM is the adoption of certain functions and activities for utilizing 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. Here functions are general activities to be done in managing people at work and activities are subfunctions or specific activities to be performed in managing people at work under the functions. However, the terms *function* and *activity* have also been used interchangeably in the writings of some authors. HRM functions encompass a variety of activities that significantly influence all areas of an organization (Byars and Rue, 2008). Through certain functions and activities which are called HRM functions or/and activities, the role of HRM is played in achieving the organizational success. The role of HRM is to aid the company in using its human resources to accomplish its goals (Stone and Meltz, 1983). There is no generally and universally accepted functional framework of HRM for the purpose of adoption to describe and explain the generic

role of HRM in achieving the goals of an organization. An attempt was made to explore HRM functions discussed by the noted authors in HRM. Refer to Exhibit 2 for the identified HRM functions and/or activities from the popular literature of HRM (textbooks).

### Exhibit 2. Identified HRM Functions

No .	Author/s and the Used Term	Functions or Activities
1	French (1978) Processes	<ol style="list-style-type: none"> <li>1. Social Responsibility</li> <li>2. Job Design &amp; Work Rules</li> <li>3. Staffing, Leadership and Supervision</li> <li>4. Organizational Justice</li> <li>5. Performance Appraisal</li> <li>6. Compensation &amp; Reward</li> <li>7. Collective Bargaining</li> <li>8. Employee Training &amp; Development, and</li> <li>9. Organizational Development</li> </ol>
2	Glueck (1979) Activities	<ol style="list-style-type: none"> <li>1. Employee Planning</li> <li>2. Employee Recruitment, Selection, &amp; Orientation</li> <li>3. Career Development &amp; Counseling, Performance Evaluation, and Training &amp; Development,</li> <li>4. Compensation &amp; Protection</li> <li>5. Safety &amp; Health</li> <li>6. Equal Employment Opportunity Programs</li> <li>7. Labor Relations, and</li> <li>8. Discipline, Control, &amp; Evaluation of the Personnel Function.</li> </ol>
3	Chruden and Sherman (1980) Functions	<ol style="list-style-type: none"> <li>1. Recruitment</li> <li>2. Selection</li> <li>3. Training and Development</li> <li>4. Performance Evaluation</li> <li>5. Compensation Management</li> <li>6. Labor Relations</li> </ol>
4	Stone and Meltz (1983) Functions	<ol style="list-style-type: none"> <li>1. Human Resource Planning</li> <li>2. Job analysis</li> <li>3. Recruiting</li> <li>4. Selection</li> <li>5. Orientation</li> <li>6. Training and Development</li> <li>7. Performance Appraisal</li> <li>8. Career Planning</li> <li>9. Compensation</li> <li>10. Benefits</li> <li>11. Health and Safety</li> <li>12. Labour Relations</li> <li>13. Employee Record-keeping</li> </ol>
5	Beach (1985) Functions	<ol style="list-style-type: none"> <li>1. Employment</li> <li>2. Transfer, Promotion. Layoff</li> <li>3. Training and Development</li> </ol>

		<ol style="list-style-type: none"> <li>4. Compensation Administration</li> <li>5. Health and Safety</li> <li>6. Discipline and Discharge</li> <li>7. Labor Relations</li> <li>8. Benefits and Services</li> <li>9. Organization Planning</li> <li>10. Organization Development</li> <li>11. Human Resource Planning</li> <li>12. Equal Employment Opportunity</li> <li>13. Personnel and Behavioral Research</li> <li>14. Personnel Information Systems</li> </ol>
6	<p>Schuler and Youngblood (1986)</p> <p>Functions and activities</p>	<ol style="list-style-type: none"> <li>1. Planning for Human Resource Needs</li> <li>2. Staffing the Personnel Needs of the Organization</li> <li>3. Appraising Employee Behavior</li> <li>4. Compensating Employee Behavior</li> <li>5. Training and Career Management</li> <li>6. Improving the Work Environment</li> <li>7. Establishing and Maintaining Effective Work Relationships</li> </ol>
7	<p>Heneman III, Schwab, Fossum, and Dyer (1989)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. Analyzing Individuals and Jobs</li> <li>2. Assessing Outcomes</li> <li>3. Human Resource Planning</li> <li>4. External Staffing</li> <li>5. Internal Staffing and Development</li> <li>6. Compensation</li> <li>7. Labor Relations</li> <li>8. Work Environment</li> </ol>
8	<p>Graham and Bennett (1992)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. Job Analysis and Job Specifications</li> <li>2. Recruitment and Selection</li> <li>3. Promotion, Transfer, Demotion and Retirement</li> <li>4. Resignation and Dismissal</li> <li>5. Labour Turnover</li> <li>6. Appraisal</li> <li>7. Training</li> <li>8. Job Evaluation</li> <li>9. Wages and Salaries</li> <li>10. Safety and Conditions of Employment</li> <li>11. Personnel Records and Statistics</li> <li>12. Industrial Relations</li> </ol>
9	<p>Bernardin and Russell (1993)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. Organizational Design</li> <li>2. Staffing</li> <li>3. Communications and Public Relations</li> <li>4. Performance Management</li> <li>5. Reward Systems, Benefits and Compliance</li> <li>6. Employee and Organizational Development</li> </ol>
10	<p>Bratton and Gold (1994)</p>	<ol style="list-style-type: none"> <li>1. Staffing</li> <li>2. Rewards</li> <li>3. Employee Development</li> </ol>



	Activities	<ol style="list-style-type: none"> <li>4. Employee Maintenance</li> <li>5. Employee/Industrial Relations</li> </ol>
11	Singh, Chhabra, and Taneja (1995)  Functions	<ol style="list-style-type: none"> <li>1. Employment</li> <li>2. Training and Development</li> <li>3. Remuneration</li> <li>4. Working Conditions</li> <li>5. Motivation</li> <li>6. Personnel Records</li> <li>7. Industrial Relations</li> </ol>
12	Mamoria (1996)  Functions	<ol style="list-style-type: none"> <li>1. Procurement</li> <li>2. Development</li> <li>3. Compensation</li> <li>4. Integration</li> <li>5. Maintenance</li> </ol>
13	Werther and Davis (1996)  Activities	<ol style="list-style-type: none"> <li>1. Human Resource Planning</li> <li>2. Recruitment</li> <li>3. Selection</li> <li>4. Orientation</li> <li>5. Training and Development</li> <li>6. Placement</li> <li>7. Appraisal</li> <li>8. Compensation</li> <li>9. Employee Relations</li> <li>10. Union-Management Relations</li> </ol>
14	Harris (1997)  Activities	<ol style="list-style-type: none"> <li>1. Planning</li> <li>2. Staffing</li> <li>3. Evaluating and Compensating</li> <li>4. Improving the Organization</li> <li>5. Maintaining Effective Employer-Employee Relationships</li> </ol>
15	Mondy, Noe, and Premeaux (1999)  Functions	<ol style="list-style-type: none"> <li>1. HR Planning, Recruitment, and Selection</li> <li>2. HR Development</li> <li>3. Compensation and Benefits</li> <li>4. Safety and Health</li> <li>5. Employee and Labor Relations</li> <li>6. HR Research</li> </ol>
16	Pattanayak (2003)  Functions	<ol style="list-style-type: none"> <li>1. Ensuring the equal employment opportunities and other government regulations</li> <li>2. Job Analysis</li> <li>3. Human Resource Planning</li> <li>4. Recruiting and Selecting</li> <li>5. Orienting and Training</li> <li>6. Management and Organizational Development</li> <li>7. Appraising</li> <li>8. Career Plans</li> <li>9. Compensation System</li> </ol>
17	Kleiman (2004)	<ol style="list-style-type: none"> <li>1. Human Resource Planning</li> <li>2. Job Analysis</li> </ol>

	Practices	<ol style="list-style-type: none"> <li>3. Recruitment</li> <li>4. Selection</li> <li>5. Training and Development</li> <li>6. Performance Appraisal</li> <li>7. Compensation</li> <li>8. Productivity Improvement Programs</li> </ol>
18	<p>Fisher, Schoenfeldt, and Shaw (2006)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. HR Planning</li> <li>2. Job Analysis</li> <li>3. EEO</li> <li>4. Recruiting</li> <li>5. Selection</li> <li>6. Human Resource Development</li> <li>7. Performance Assessment and Management</li> <li>8. Compensation System Development</li> <li>9. Incentive Compensation</li> <li>10. Benefits</li> <li>11. Safety and Health</li> <li>12. Labor Relations and Collective Bargaining</li> <li>13. Employment Transitions</li> </ol>
19	<p>Beardwell and Claydon (2007)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. HR Planning</li> <li>2. Recruitment and Selection</li> <li>3. Managing Quality and Diversity</li> <li>4. Learning and Development</li> <li>5. Management Development</li> <li>6. The Employment Relationship</li> <li>7. Reward and Performance Management</li> <li>8. Employee Participation and Involvement</li> </ol>
20	<p>Noe, Hollenbeck, Gerhart, and Wright (2007)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. Analyzing and Designing Jobs</li> <li>2. Recruiting and Hiring</li> <li>3. Training and Developing</li> <li>4. Managing Performance</li> <li>5. Planning and Administering Pay and Benefits</li> <li>6. Maintaining Positive Employee Relations</li> <li>7. Establishing and Administering Personnel Policies</li> <li>8. Ensuring Compliance with Labor Laws</li> <li>9. Supporting the Organization's Strategy</li> </ol>
21	<p>Byars and Rue (2008)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. HR Planning, Recruitment, and Selection</li> <li>2. HR Development</li> <li>3. Compensation and Benefits</li> <li>4. Safety and Health</li> <li>5. Employee and Labor Relations</li> <li>6. HR Research</li> </ol>
22	<p>DeNisi and Griffin (2008)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. Recruitment and Selection</li> <li>2. Managing the Diverse Workforce</li> <li>3. Compensation and benefits</li> <li>4. Performance Appraisal</li> <li>5. Career Development</li> </ol>

		<ol style="list-style-type: none"> <li>6. Managing Labor Relations</li> <li>7. Safety, Health, Well-Being, and Security</li> <li>8. Motivation at Work</li> </ol>
23	<p>Opatha (2009)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. Job Design</li> <li>2. Job Analysis</li> <li>3. Human Resource Planning</li> <li>4. Recruitment</li> <li>5. Selection</li> <li>6. Hiring</li> <li>7. Induction</li> <li>8. Performance Evaluation</li> <li>9. Training &amp; Development</li> <li>10. Career Management</li> <li>11. Pay Management</li> <li>12. Welfare Management</li> <li>13. Management of Incentives</li> <li>14. Employee Movements</li> <li>15. Health and Safety Management</li> <li>16. Discipline Management</li> <li>17. Grievance Management</li> <li>18. Labour Relations</li> </ol>
24	<p>Cascio (2010)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. Staffing</li> <li>2. Retention</li> <li>3. Development</li> <li>4. Adjustment</li> <li>5. Managing Change</li> </ol>
25	<p>Gomez-Mejia, Balkin, and Cardy (2010)</p> <p>Functions</p>	<ol style="list-style-type: none"> <li>1. Managing Work Flows and Conducting Job Analysis</li> <li>2. Staffing</li> <li>3. Employee Separations</li> <li>4. Appraising and Managing Performance</li> <li>5. Training</li> <li>6. Developing Careers</li> <li>7. Managing Compensation</li> <li>8. Rewarding</li> <li>9. Benefits</li> <li>10. Employee Relations</li> <li>11. Employee Rights and Discipline</li> <li>12. Working with Organized Labor</li> <li>13. Managing Workplace Safety and Health</li> </ol>
26	<p>Ivancevich (2010)</p> <p>Activities</p>	<ol style="list-style-type: none"> <li>1. HR Planning and Alignment</li> <li>2. Job Analysis and Design</li> <li>3. Recruitment</li> <li>4. Selection</li> <li>5. Performance Evaluation and Management</li> <li>6. Compensation</li> <li>7. Employee Benefits and Services</li> <li>8. Training and Development</li> <li>9. Career Planning and Development</li> </ol>

		<ul style="list-style-type: none"> <li>10. Labor Relations and Collective bargaining</li> <li>11. Managing Employee Discipline</li> <li>12. Promoting Safety and Health</li> </ul>
27	Mathis and Jackson (2011)  Functions	<ul style="list-style-type: none"> <li>1. Strategic HRM</li> <li>2. Equal Employment Opportunity</li> <li>3. Staffing</li> <li>4. Talent Management and Development</li> <li>5. Total Rewards</li> <li>6. Risk Management and Worker Protection</li> <li>7. Employee and Labor Relations</li> </ul>
28	Torrington, Hall, Taylor, and Atkinson (2011)  Functions	<ul style="list-style-type: none"> <li>1. Organizational Design and Flexibility</li> <li>2. Workforce Planning</li> <li>3. Recruitment</li> <li>4. Selection</li> <li>5. Staff Retention</li> <li>6. Ending the Contract</li> <li>7. Employee Performance Management</li> <li>8. Managing Attendance and Absence</li> <li>9. Development</li> <li>10. Employee Relations</li> <li>11. Reward</li> </ul>
29	Schwind, Das, Wagar, Fassina, and Bulmash (2013)  Activities	<ul style="list-style-type: none"> <li>1. HR Planning</li> <li>2. Job Analysis and Design</li> <li>3. Recruitment and Selection</li> <li>4. Development and Evaluation</li> <li>5. Compensation and Safety</li> <li>6. Employee and Labour Relations</li> </ul>
30	Armstrong and Taylor (2014)  Activities	<ul style="list-style-type: none"> <li>1. Strategic (transformational) activities concerned with the alignment and implementation of HR and business strategies</li> <li>2. Transactional-the main HR service delivery activities of resourcing, learning and development, reward and employee relations</li> </ul>
31	Stewart and Brown (2014)  Functions	<ul style="list-style-type: none"> <li>1. Strategic Management</li> <li>2. Workforce Planning</li> <li>3. Development</li> <li>4. Compensation and benefits</li> <li>5. Employee and Labor Relations</li> <li>6. Health and Safety</li> </ul>
32	Bohlander and Snell (2017)  Activities	<ul style="list-style-type: none"> <li>1. HR Planning</li> <li>2. Recruitment</li> <li>3. Staffing</li> <li>4. Job Design</li> <li>5. Training and Development</li> <li>6. Appraisal</li> <li>7. Communications</li> <li>8. Compensation</li> <li>9. Benefits</li> <li>10. Labor Relations</li> </ul>

33	Aswathappa (2017)  Functions	<ol style="list-style-type: none"> <li>1. Planning</li> <li>2. Staffing</li> <li>3. Developing</li> <li>4. Monitoring</li> <li>5. Maintaining</li> <li>6. Managing Relationships</li> <li>7. Managing Change</li> <li>8. Evaluating</li> </ol>
34	Dessler (2017)  Activities	<ol style="list-style-type: none"> <li>1. Conducting Job Analysis</li> <li>2. Planning HR Needs</li> <li>3. Recruiting Job Candidates</li> <li>4. Orienting and Training New Employees</li> <li>5. Managing Wages and Salaries</li> <li>6. Providing Incentives and benefits</li> <li>7. Appraising Performance</li> <li>8. Communicating (Interviewing, Counseling, Disciplining)</li> <li>9. Training Employees and Developing Managers</li> <li>10. Building Employee Relations and Engagement</li> </ol>

A careful examination of the Exhibit reveals the following:

1. Each of 34 textbooks written by the noted authors provides a set of HRM functions. Hence, the role of HRM cannot be described and explained by using one function or two or three or even several functions. It is a vast area having many aspects to assist the organization to achieve its goals.
2. There is no general agreement with regard to number of HRM functions and their labeling.
3. Some authors (by number it is 17) have used the term *Functions* while others (14) have used the term *Activities*. The both terms, i.e., *Functions and Activities* have been used only in one source/textbook (written by two authors namely Schuler and Youngblood). One author (namely French) has used a term *Processes* and another (namely Kleiman) has used a term *Practices*. Thus, majority of the sources include the term *Functions*.
4. Almost all sources have functions such as HR Planning, Recruitment, Selection, Training and Development, Performance Appraisal, Compensation (or Rewards) Management, and Relations (particularly with Labour).
5. Approximately at least there are 8 HRM functions on average. Number of functions given by Armstrong and Taylor (2014) were taken as 7 (not as 2) in order to get the average figure. This suggests that any functional framework of HRM needs to have at least 8 functions so as to be sufficient minimally.

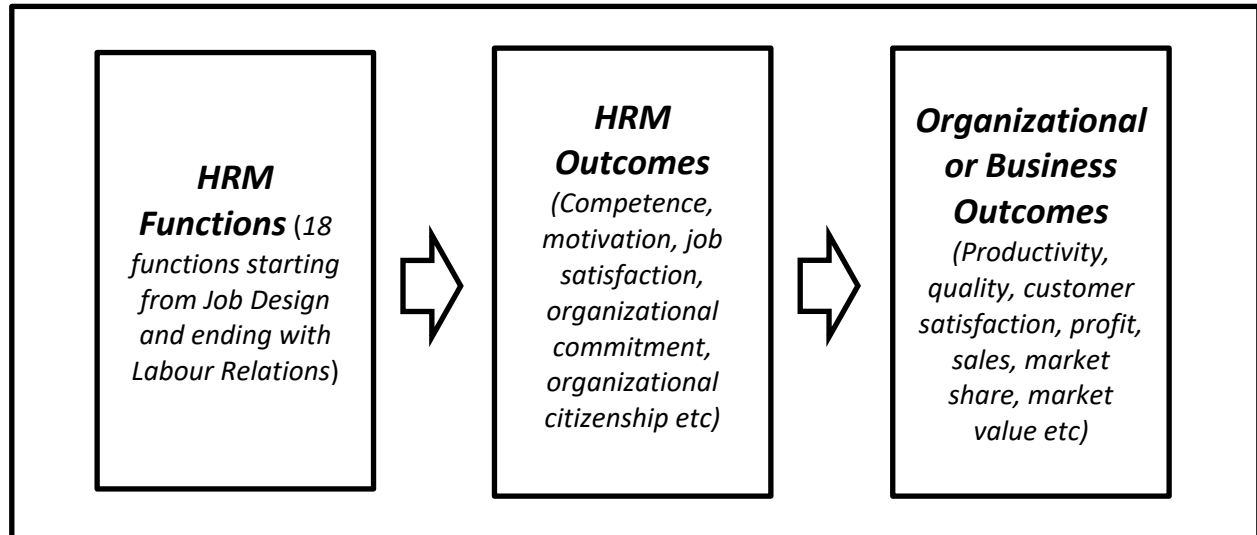
Having presented the HRM functions specified in 34 sources, one source was selected to be adopted to describe and explain the generic role of HRM in an organization. Source numbered 23, i.e., Opatha (2009) was decided to be adopted owing to the following reasons:

1. As this study is a Sri Lankan study, the only source published in Sri Lanka appearing in the Exhibit is number 23.
2. There are 18 HRM functions given by being the most comprehensive list.
3. It includes the essential major functions specified by almost all sources.
4. The relevant textbook has been written by one of the authors of this theoretical research paper. It has been used by the author for many years in teaching and researching. Other two authors also have a high level of familiarity with the eighteen functions.
5. A logical sequence can be viewed in respect of the seven functions starting from Job Design and ending with Induction.
6. In the original source (Opatha, 2009) these eighteen functions of HRM do not exist in a vacuum but they have been logically positioned in a model of HRM that includes the objectives, strategic goals, and generic purpose of HRM.

The purpose of HRM is to improve the productive contribution of people to the organization in ways that are strategically, ethically, and socially responsible (Werther and Davis, 1996). Successful performance of HRM functions results in creating and enhancing a competitive advantage for an organization and it leads to produce employee-centered outcomes, i.e., competence, motivation, and work-related attitudes (such as job satisfaction, organizational commitment and organizational citizenship) and then organization-centered outcomes, i.e., output, retention, legal compliance and company image (Kleiman, 2004). According to the Harvard Model of HRM developed by Beer, Spector, Lawrence, Mills, & Walton, there are stakeholders and situational factors which affect HRM policy choices, which subsequently result in HR outcomes such as commitment, competence, congruence, and cost-effectiveness, which ultimately lead to long term consequences such as individual well-being, organizational effectiveness, and societal well-being (Beardwell and Claydon, 2007). HRM functions generate job outcomes such as performance, productivity, quality, satisfaction, and retention which contribute to organizational outcomes such as survival, competitiveness, growth, and profitability (Schwind et al, 2013). Research reveals that HRM practices cause significant improvements in organizational performance (Armstrong and Taylor, 2014). Further, according to the model developed by Armstrong and Taylor (2014) by taking various researchers' considerations, HRM practices cause HRM outcomes (engagement, commitment, motivation, and skill) which cause business outcomes (productivity, quality, customer satisfaction) which subsequently cause financial performance (profit, sales, market share, and market value).

Thus, it is conceived that a functional framework of HRM is at least composed of specific HRM functions, HRM or employee-centered outcomes, and organizational or business outcomes. Further, it is theorized that specific HRM functions beget HRM outcomes which beget organizational outcomes. This framework is depicted in Figure 1.

**Figure 1. Functional Framework of HRM**



**The Generic Role of HRM in Organizations engaged in Construction Industry**

Human resources in an organization, usually a company engaged in construction industry, are personnel or employees who are required to have general knowledge, skills, and attitudes which are right in addition to right knowledge, skills, and attitudes which are specially related to construction industry. Employees need to be appropriately competent to successfully perform their relevant jobs. Employees are required to be productive essentially. Furthermore, they need to be sufficiently motivated to put their mental and physical efforts to perform duties and voluntary tasks successfully. Further, they need to be physically, psychologically, and emotionally engaged in performing the jobs successfully. Also, employees need to be away from counter-productive behaviours such as sabotage, theft, and aggression. Apart from these, employees need to be present at work regularly, need to be adequately satisfied with the jobs, and committed to the organization for a considerable period of time without leaving it. Sound HRM provides the construction company with the right construction workforce. Without the sufficient and relevant work and support of personnel and their sound management, the construction organization cannot exist or operate efficiently and effectively. Any company in construction industry will have to perform all the eighteen HRM functions each of which has a specific role to play to achieve HRM outcomes and business outcomes. Refer to Exhibit 3 that presents roles of the eighteen HRM functions.

**Exhibit 3. Roles of Specific HRM Functions**

Specific HRM Function	Role
1. Job Design	To arrange and rearrange systematically tasks, duties, and responsibilities into jobs so as to make jobs meaningful in terms of productivity and employee job satisfaction.
2. Job Analysis	To systematically attempt to collect, organize and record information with regard to jobs available within the organization and ideal persons needed to perform those jobs successfully so as to produce a set of useful information for successful performance of other HRM functions.

3. HR Planning	To systematically determine the types and numbers of employees needed for a certain future time to achieve business goals and deciding the means of meeting the future demand for employees so as to ensure a balance between HR demand and HR supply.
4. Recruitment	To find suitably qualified and motivated job seekers and attract them as job applicants to apply for the job vacancies so as to create a pool of suitably qualified applicants.
5. Selection	To choose more appropriate job candidates to fill the job vacancies.
6. Hiring	To appoint those selected job candidates to the posts and enter them into employment contract.
7. Induction	To systematically introduce new employees to the job, job environment, organization and relevant personnel so as to reduce cultural shock, real shock, errors and accidents, and increase socialization.
8. Performance Evaluation	To do systematic, periodic and formal evaluation of how well and how far employees have worked their jobs so as to make various decisions relating to them.
9. Training & Development	To provide employees with job-related new knowledge, skills and right attitudes in order to perform current jobs properly and prepare them for future jobs of greater responsibilities.
10. Career Development	To design and implement new career goals, opportunities and paths for motivating and developing employees, increasing their commitment and job involvement, and also improving employee productivity.
11. Pay Management	To develop, implement and maintain a base pay system that is fair.
12. Welfare Management	To perform activities involved in the development, implementation and on-going maintenance of a fair and effective system of facilities and comforts to enhance standard of living of employees.
13. Incentive Management	To develop, implement and maintain a fair and adequate system of incentives continuously so as to improve productivity, quality, and innovativeness.
14. Management of Employee Movements	To do managing promotions, transfers, lay-offs, demotions, dismissals, terminations, retirements, and retrenchment in the right ways at the right times.
15. Health and Safety Management	To performance management of activities involved in creating, improving and maintaining total health and safety of employees so as to help them to be healthy.
16. Discipline Management	To manage activities involved in planning and controlling behaviour of employees in compliance with established rules and regulations so as to ensure smooth running of the business activities.
17. Grievance Management	To identify and solve discontents arising from feelings of injustice felt by employees in connection with work environments and personal life aspects.
18. Labour Relations	To manage all interactions between management and trade unions so as to create and enhance industrial democracy, industrial peace and cordial relationships.

Source: Adapted from Opatha (2009)

Functions numbered 1, 2, and 3 are viewed as a field or an area of HRM called Planning (Stone and Meltz, 1983; Opatha, 2009). These functions take into account strategic needs of the construction company (such as vision, mission, and objectives) and consequently formulate and implement programs or schemes to meet employee needs (types and numbers). Functions numbered 4, 3, 5, 6, and 7 are viewed as a field or an area of HRM called Staffing (Stone and Meltz, 1983; Opatha, 2009). The functions under staffing have a focus on obtaining employees with the knowledge, skills, attitudes, interests, character, and personality required to do the relevant jobs. Functions numbered 8, 9, and 10 are viewed as a field or an area of HRM called Human Resource Development (Mondy, Noe, and Premeaux, 1999; Opatha, 2009;



Armstrong and Taylor, 2014). The functions under this area seek to ensure that employees possess updated competencies to perform successfully their current jobs and to advance in the organization. Functions numbered 11, 12, and 13 are viewed as a field or an area of HRM called Rewards Management (Mondy, Noe, and Premeaux, 1999; Opatha, 2009; Armstrong and Taylor, 2014). The functions of this field or area provide fair wages and salaries, sufficient benefits, and incentives to motivate and retain employees. The rest of the functions, i.e., from 14 to 18 can be viewed as a field or area called Employee and Labour Relations (Mondy, Noe, and Premeaux, 1999; Opatha, 2009; Mathis and Jackson, 2011; Opatha, 2021<sup>1</sup>). These functions focus on establishing and maintaining effective relationships.

### Specific Considerations in Managing Construction Personnel

A working definition for specific considerations was formulated and it is “*special thoughts or reflections in respect of characteristics, challenges, or issues which need a special attention in the context of managing personnel at construction work*”. The complexity and dynamism of the industry’s project-based culture threaten to undermine the applicability of many central tenets of the HRM strategy that have been applied successfully in more stable sectors (Loosemore, Dainty, and Lingard, 2003). According to Loosemore, Dainty, and Lingard (2003), although construction activity is extremely diverse, ranging from simple housing developments to highly complex infrastructure projects, all types of construction project, regardless of size, have some common characteristics which include (1) Their unique, one-off nature; (2) Their tendency to be awarded at short notice; (3) Their reliance on a transient workforce; (4) Increasingly demanding clients; and (5) A male-dominated culture. Exhibit 4 provides these characteristics and their implications for HRM.

**Exhibit 4. Common Characteristics of Construction Activity and HRM Implications**

Common Characteristics	Description	HRM Implications
Their unique, one-off nature	A project is designed, organized, and completed only once. Construction projects are unique organizations that are designed and constructed to meet a particular client’s product and service needs.	Employees face learning-curve problems associated with new work activities and ever-changing workplace relationships. Hence, it is more likely that employees need to be appointed, oriented, and trained per each project.
Their tendency to be awarded at short notice	Generally, a process of competitive tendering occurs and once it is finished, at short notice many construction projects are awarded. Therefore, possibilities for thorough planning are often limited.	A project team comprising an appropriate blend of skills and abilities to meet the project demands has to be mobilized by the design consultancy or contractor quickly. Sudden recruitment, selection, and team building will have to be performed.
Their reliance on a transient workforce	Though there are the increased use of offsite fabrication and the wider use of prefabricated components,	The employment of a transient workforce which can move from one project location to the next

	the final product is normally assembled and completed in the required site location.	gets necessitated. Owing to this transience, many problems for workers, such as longer working days, more expense in travelling to work and managing work–life balance issues arise. Further there is a transience within projects because of the reason that the composition of teams normally changes during different project stages, involving people from many organizations, backgrounds and locations.
Increasingly demanding clients	Clients procuring construction work make higher expectations about the quality of service and product.	A considerable amount of commitment and engagement of employees will be required. This may tend to manifest itself in unsafe working practices, long working hours and increased levels of stress.
A male-dominated culture.	Male employees dominate both craft trades and professional and managerial positions within the construction industry.	Construction company will have to solve employee shortages by recruiting from only a portion of the population, and face difficulties in the management of equal opportunities and workforce diversity.

Source: Adapted from Loosemore, Dainty, and Lingard (2003)

The above Exhibit shows a number of HRM challenges which have to be faced by relevant top managers and HR professionals in organizations engaged in the construction industry. How to have a constant balance between project requirements and competing organizational and individual employee expectations and priorities? This is a serious question which needs a set of effective HRM solutions based on sound theoretical arguments and empirical research evidence. Loosemore, Dainty, and Lingard (2003, p. 4) write: *“We have pointed out that construction is a project-based industry and that this involves bringing together different combinations of clients, designers, constructors and suppliers for relatively short periods of time. In construction the multidisciplinary characteristics of its project teams present particular challenges for managers attempting to secure appropriate staff for projects at different stages and based in geographically dispersed locations. In effect, construction projects form autonomous business units with their own multifunctional teams and objectives, and this inevitably means that line managers must take on responsibility for aspects of the HRM function.”* Thus, there is a serious need of devolution of the HRM function to the project manager. Indeed, employees and their sound management largely determine a project’s success. Unfortunately, line managers do not possess right and sufficient competencies in HRM owing to the fact that they have been educated and trained in their respective fields of

specialization. Managers who have predominantly production-oriented management skills are not able to meet the psychological needs which define an effective employment relationship (Mullins, 1999). To formulate and implement some HRM programs which are strategically, sustainably, and participatorily appropriate do require expertise in HRM which is generally missing from line and project managers. In case of relationship building some managers are indeed intelligent to be successful. Some managers with a natural ability to manage people are able to engender an effective team spirit and collective responsibility towards the production function, but less effective managers risk the breakdown of team relationships and, ultimately, deterioration in organizational commitment (Loosemore, Dainty, and Lingard, 2003).

There is a strong relationship between economic changes such as recession and growth and construction industry's progress. When there an economic growth the construction industry's progress gets increased. An economic recession results in reducing the industry's progress. Hence, the demand for construction products and services is subject to change significantly alone with a country's economic development. Construction industry has always suffered from being one of the first industries to be affected by an economic downturn and one of the last to recover from it, and there is the variable demand for construction products and services (Loosemore, Dainty, and Lingard, 2003). They (2003, p.5) point out: *"This cycle of peaks and troughs in construction demand makes it very difficult for companies to retain directly employed workforces and make long-term investments in its core professional staff. Consequently, most construction companies adopt a flexible model of HRM, in which they employ the bulk of their workforce on temporary contracts or as subcontracted labour"*. Hence, it is possible for a construction company to maintain two types of employee force, i.e., performant workforce and temporary workforce necessitating to deal with layoffs and retrenchments. To do human resource planning becomes more difficult. Here is a reliance on an ephemeral workforce (Sethi and Kataria, 2017). Most of the employees are short-lived or transitory. Many employees, particularly non-managerial employees of the workforce in a construction company have to move from one project to another project. At times the location of the on-site project is such that the families of employees may not accompany them resulting in problems like homesickness, increased expenses on the part of employees to visit family and issues of work-life balance (Sethi and Kataria, 2017).

The image of the construction industry seems to be negative or at least not desirable. The construction industry is less attractive to individuals of high caliber who seek careers instead of jobs, competitiveness instead of mere working without challenges, work-family balance instead of work-family conflict, and higher rewards instead of marginal rewards. Clearly, high-achieving job seekers are likely to gravitate towards industries and sectors which are seen as offering good wages, good working conditions and good career opportunities, and as being the most glamorous and attractive to work in; and the construction industry is not so (Loosemore, Dainty, and Lingard, 2003). The dynamism and flexibility of career development in project-oriented companies is intrinsically related to the fact that projects, being transient, cannot provide careers (Huemann, Keegan, and Turner, 2007). Lack of careers means presence of jobs but not a set of jobs which are from the lowest level to the highest level in a

relevant profession or in an organizational hierarchy. There is a concept called “spiral staircase career” which is the idea that employees will move through a series of varied and wide-ranging jobs in project-oriented companies (Keegan and Turner, 2003). Career development has traditionally been viewed as a long staircase, moving forward step by step, finally reaching the highest step. The spiral career is a non-traditional career and is not a strictly vertical affair. A construction company is in a position to adopt a spiral staircase approach to career management of construction professionals and employees.

It seems that employee retention has become a very important need for construction companies. Employee turnover tends to be higher in construction firms because firms in other industries generally offer better rewards, better working conditions and better career opportunities. Employee turnover, or ‘wastage’, is an extremely important issue for construction companies’ strategic HR planning, yet a culture of mobility has emerged in the industry which has led to a workforce of corporate mercenaries that coldly drift from job to job with little sense of loyalty to their employers (Loosemore, Dainty, and Lingard, 2003). Hence, a serious attention has to be drawn to employee retention which means remaining employees in the organization, particularly those who are high performers.

Specific features of the project-oriented company create specific challenges for HRM (Huemann, Keegan, and Turner, 2007). Based on previous research as well as their review of the project management, general management and HRM literatures, Huemann, Keegan, and Turner (2007) have developed a simple model of HRM processes in the project-oriented company. According to them, the processes familiar from mainstream HRM literature such as recruitment, employment and release exist in a project-oriented company as well, and in addition, additional HRM processes, i.e., assignment to projects, engagement on projects, and dispersion after projects have finished, exist in a project-oriented company. Assignment to the project is the process of assigning project personnel (program managers, project managers, and team members) to new projects and programs; engagement on projects alternatively employment in the project involves that project owners and project managers have duties for the care of individuals such as project appraisals and support for career development, and further, the project owner has duties to care for the development of, for example, the project manager; and dispersion from the project refers to a situation where the organization needs to decide whether the employee will be immediately assigned to a new project, or assigned to a project starting sometime in the future where their skills will be better used, or held in abeyance because there is no project for them to be assigned to (adapting from Huemann, Keegan, and Turner, 2007).

As per a comprehensive study done by Ameh and Daniel (2017), 32 challenges confronting HRM practices in the Nigeria construction firms were found and they were categorized into three groups such as recruitment and selection, training and development, and motivation and labour relations. Exhibit 5 provides these 32 challenges. Under recruitment and selection, challenges numbered from 1 to 5 were the top challenges. Under motivation and labour relations, challenges numbered from 18 to 22 were top five challenges.

## Exhibit 5. 32 HRM Challenges in the Construction Industry

Challenges
<p><b>Recruitment and Selection</b></p> <ol style="list-style-type: none"><li>1. Competition for globally mobile talent</li><li>2. Avoiding high experience labour turnover</li><li>3. Reducing the cost per hire</li><li>4. Recruiting the right person for a specific position</li><li>5. Getting the right candidate for vacancies internally advertised</li><li>6. Attracting staff with high reputation from other companies</li><li>7. To represent the interests of employees within the framework of its primary obligation to senior management</li><li>8. Collecting the right information about jobs to prepare job descriptions</li><li>9. Making sure employees have the mechanisms required to contest unfair practices</li><li>10. Outsourcing of short- and long-term employee services</li><li>11. Recruiting staff for specific project only (i.e. on short- term bases)</li></ol>
<p><b>Training and Development</b></p> <ol style="list-style-type: none"><li>12. Identifying employee skill gaps</li><li>13. Ensuring adequate training not to undermine department's effectiveness</li><li>14. Ensuring employees are doing their best during time of turbulence</li><li>15. Making adequate budget for employee training in dwindling economy</li><li>16. Development of professionals</li><li>17. Rapid advances in HR technology</li></ol>
<p><b>Motivation and Labour Relations</b></p> <ol style="list-style-type: none"><li>18. Maintaining company employee salary structure in a competitive labour market</li><li>19. Maintaining good salary band among categories of employee in a competitive labour market</li><li>20. Providing adequate retirement benefits</li><li>21. Clearly defining how management should treat employees</li><li>22. Ensuring employees do not commit any unfair labour practices</li><li>23. Motivating sub-ordinates non-financially</li><li>24. Ensuring the company does not commit any unfair labour practices</li><li>25. Maintaining fair salaries among categories of employees</li><li>26. Ensuring the company is not in court because of discriminatory actions</li><li>27. Ensuring there are no conflicts among the subordinates in the organisation</li><li>28. Setting the policy for collective bargaining, contract negotiation, and grievance handling</li><li>29. Ensuring that some employees do not think that their salaries are unfair and inequitable relative to others in other organizations</li><li>30. Allowing participation in only establishment-based union</li><li>31. Negotiating trade unions issues with management</li><li>32. Staff involvement in national trade unions activities</li></ol>

Source: Adapted from Ameh and Daniel (2017)

A careful examination of the HRM challenges found by Ameh and Daniel (2017) reveals that most of them are general issues faced by organizations in managing personnel. However, these challenges are important considerations and right HRM strategies need to be explored to address sufficiently.

These challenges need to be faced by the relevant top managers and HRM professionals working in construction organizations successfully. A set of right HRM solutions is indispensable in the context of facing the challenges. Further research becomes essential to understand a sort of right HRM solutions which avoids or reduces the poor performance of the organizations in construction industry in terms of inefficiencies, wastes, delays in project delivery, cost uncertainty, and quality deficiency.

### **Conclusion Remarks**

This paper is based on a conceptual study which was done by using the desk research strategy. Authority which is a non-scientific method was predominantly adopted to carry out the study. There were five research objectives to be achieved. The first objective was: “To explore and describe the nature of construction industry and differentiate it from other industries”. The construction industry is project based by nature demanding high flexibility and adaptability from firms and workers; is having complexity in project management; has construction projects which are temporary and unique necessitating a distinct approach to management practices, including team formation, resource allocation, and timeline adherence; is highly labor intensive and highly dependent on skilled workforce; and has subcontracting as a common phenomenon. Hence construction industry differs from other industries particularly manufacturing, banking, education, and health care.

The second objective was: “To explore and describe the specific types of personnel working in construction industry, and their general duties”. Specific Types of Personnel in Construction Industry include project manager, construction manager, site engineer, architect, quantity surveyor, structural engineer, technical officer and some other personnel such as electrical engineer, mechanical engineer, electrician, plumber, mason, construction labourer or assistant, crane operator, accountant, procurement officer, health and safety officer, and construction foreman. These jobs are different from each other and they have their own specific duties.

The third objective was: “To explore and decide a sufficient functional framework of HRM to adopt for describing and explaining the generic role of HRM in an organization.” A laborious attempt was made to identify and present HRM functions or activities from 34 textbooks written by noted authors. An examination of the mainstream textbook literature resulted in five findings. Finally, a functional framework of HRM was decided by deriving material predominantly from Opatha (2009).

“To describe and explain the generic role of HRM in organizations engaged in construction industry” was the fourth objective of this research paper. Roles of Specific HRM Functions were outlined and five fields or areas were conceived. It is argued that the functions under

Planning take into account strategic needs of the construction company and consequently formulate and implement programs or schemes to meet employee needs; the functions under staffing have a focus on obtaining employees with the knowledge, skills, attitudes, interests, character, and personality required to do the relevant jobs; the functions of Human Resource Development seek to ensure that employees possess updated competencies to perform successfully their current jobs and to advance in the organization; the functions of Rewards Management provide fair wages and salaries, sufficient benefits, and incentives to motivate and retain employees; and the functions under Employee and Labour Relations have a focus on establishing and maintaining effective relationships.

The fifth objective was: “To find out whether there are specific considerations in managing personnel working in construction industry, if then specify them”. Yes, there are specific considerations in managing personnel working in construction industry. Here, working definition of specific considerations is “*special thoughts or reflections in respect of characteristics, challenges, or issues which need a special attention in the context of managing personnel at construction work*”. The attempt taken to explore specific considerations resulted in that there are a number of specific considerations in managing personnel working in construction industry.

The paper has a theoretical value in the sense that it provides a synthesis of the mainstream HRM textbook literature in respect of HRM functions or activities; an HRM functional framework which can be adopted to describe and explain the generic role of HRM in a company engaged in the construction industry; and a short of synthesis on special considerations in managing personnel at construction work. Further it contributes to existing body of Sri Lankan literature of HRM. As the paper presents a set of specific considerations which may be useful for practicing managers in the construction industry, it has a practical value too. It is indispensable to avoid or reduce the poor performance of the construction organizations in terms of inefficiencies, wastes, delays in project delivery, cost uncertainty, and quality deficiency. For this, it is indispensable to decide right HRM solutions. In order to understand right HRM solutions specifically for the construction organizations, further theoretical and empirical research is needed.

## References

- Akintoye, A. and MacLeod, M. (1997), Risk analysis and management in construction, *International Journal of Project Management*, Vol. 15, No. 1, pp. 31-38.
- Ameh, O.J. and Daniel, E.I. (2017), Human Resource Management in the Nigerian Construction Firms: Practices and Challenges, *Journal of Construction Business and Management*, Vol. 2, No. 1, pp. 46-53.
- Armstrong, M. and Taylor, S. (2014), *Armstrong's Handbook of Human Resource Management*, London: Kogan Page.
- Aswathappa, K. (2017), *Human Resource Management*, 8<sup>th</sup> ed, Chennai: McGraw Hill Education (India) Private Limited.

- Beach, D.S. (1985), *Personnel: The Management of People At Work*, 5<sup>th</sup> ed, New York: Macmillan Publishing Company.
- Beardwell, J. and Claydon, T. (2007), *Human Resource Management: A Contemporary Approach* (5<sup>th</sup> ed.), London: Prentice-Hall.
- Bernardin, H.J. and Russell, J.E.A. (1993), *Human Resource Management: An Experiential Approach*, New York: McGraw-Hill, Inc.
- Bohlander, G. and Snell, S. (2017), *Principles of Human Resource Management*, Mason: Cengage Learning.
- Bratton, J and Gold, J. (1994), *Human Resource Management: Theory and Practice*, London: Macmillan.
- Byars, L.L. and Rue, L.W. (2008), *Human Resource Management*, Boston: McGraw-Hill Irwin.
- Cascio, W.F. (2010), *Managing Human Resources: Productivity, Quality of Work Life, Profits*, 8<sup>th</sup> ed, Boston: McGraw-Hill Irwin.
- Choudhry, R. M., Fang, D., and Mohamed, S. (2009), Developing a model of construction safety culture, *Journal of Management in Engineering*, Vol. 23, No. 4, pp. 207-212.
- Chruden, H.J. and Sherman, A.W. (1980), *Personnel Management: The Utilization of Human Resources*, 6<sup>th</sup> ed, Cincinnati, Ohio: South-Western Publishing Co.
- Collins Birmingham University International Language Database (Cobuild) English Language Dictionary* (1987), London: Collins.
- DeNisi, A.S. and Griffin, R.W. (2008), *Human Resource Management*, Mason: South-Western CENGAGE Learning.
- Dessler, G. (2017), *Human Resource Management*, 15<sup>th</sup> ed, Boston: Pearson.
- Donnelly, Jr. J.H., Gibson, J.L. and Ivancevich, J.M. (1987), *Fundamentals of Management*, 6<sup>th</sup> ed., Homewood, Illinois: IRWIN.
- Fellows, R., Langford, D., Newcombe, R., and Urry, S. (2002), *Construction Management in Practice*, New Jersey: Wiley-Blackwell.
- Fisher, C.D., Schoenfeldt, L.F., Shaw, J.B. (2006), *Human Resource Management*, 6<sup>th</sup> ed, Boston: Houghton Mifflin Company.
- Flanagan, R. and Norman, G. (1993), *Risk Management and Construction*, New Jersey: Wiley-Blackwell.
- French, W.L. (1978), *The Personnel Management Process*, 4<sup>th</sup> ed, Dallas: Houghton Mifflin Company.
- Glueck, W.F. (1979), *Foundations of Personnel*, Texas: Business Publications Inc.
- Gomez-Mejia, L.R., Balkin, D.B., and Cardy, R.L. (2010), *Managing Human Resources*, Boston: Prentice Hall.
- Graham, H.T and Bennett, R. (1992), *Human Resources Management*, 7<sup>th</sup> ed, London: Pitman Publishing.
- Grobler, K., Zho, D., Collis, A., and Pearse, C. (2002), Comparative analysis of major international construction contracts, *Journal of Construction Engineering and Management*, Vol. 128, No. 4, pp. 331-337.
- Harris, M. (1997), *Human Resource Management: A Practical Approach*, Fort Worth: The Dryden Press, Harcourt Brace College Publishers.
- Heneman III, H.G., Schwab, D.P., Fossum, J.A., and Dyer, L.D. (1989), *Personnel/Human Resource Management*, New York: Richard D. Irwin, Inc.



- Huemann, M., Keegan, A., and Turner, J.R. (2007), Human resource management in the project-oriented company: A review, *International Journal of Project Management*, Vol. 25, pp. 315–323.
- Hussain, C.M., Paulraj, S.P., and Nuzhat, S. (2021), *Source Reduction and Waste Minimization*, ScienceDirect.
- Ivancevich, J.M. (2010), *Human Resource Management*, Boston: McGraw-Hill Irwin.
- Jackson, S. E. and Schuler, R. (2003), *Managing Human Resources Through Strategic Partnership*, 8th edi, Ohio: Thomson, South-Western.
- Keegan, A.E., and Turner, J. R. (2003), Managing human resources in the project-based organization, In: Turner, J.R., editor, *People in project management*, Aldershot: Gower; pp. 1–12.
- Kleiman, L.S. (2004), *Human Resource Management: A Managerial Tool for Competitive Advantage*, 3<sup>rd</sup> ed, Cincinnati, Ohio: Atomic Dog Publishing.
- Lingard, H. and Rowlinson, S. (2005), *Occupational Health and Safety in Construction Project Management*, London: Routledge.
- Loosemore, M., Dainty, A., and Lingard, H. (2003), *Human Resource Management in Construction Projects: Strategic and Operational Approaches*, London: Routledge.
- Mamoria, C.B. (1996), *Personnel Management*: Bombay: Himalaya Publishing House.
- Mathis, R.L. and Jackson, T.H. (2011), *Human Resource Management*, 13<sup>th</sup> ed, Mason, OH: SOUTH-WESTERN CENGAGE Learning.
- Mondy, R.W., Noe, R.M., and Premeaux, S.R. (1999), *Human Resource Management*, NJ: Prentice Hall.
- Mullins, L. (1999), *Management and Organizational Behaviour*, London: Pitman Publishing.
- Noe, R.A., Hollenbeck, J.R., Gerhart, B., and Wright, P.M. (2007), *Human Resource Management*, New Delhi: Tata McGraw-Hill Publishing Company (Indian Print).
- Nuzha, R. (2023), Construction | Definition, Types & Categories, <https://study.com/academy/lesson/construction-definition-types.html#:~:text=Construction%20is%20the%20process%20where%20contractors%20build%20structures%20for%20residential,than%20building%20a%20residential%20house>
- Ofori, G. (1990), *The Construction Industry: Aspects of its Economics and Management*, Singapore University Press.
- Opatha, H.H.D.N.P. (1995), *Sewamandala Kalamanakaranaya (Personnel Management)*, Colombo: Author Publication.
- Opatha, H.H.D.N.P. (2009), *Human Resource Management: Personnel*, Colombo: Department of HRM, University of Sri Jayewardenepura.
- Opatha, H.H.D.N.P. (2019), A Study of Bachelor's Degrees in Human Resource Management in Three Sri Lankan Leading State Universities, *Universal Journal of Educational Research*, Vol. 7, No.11, pp. 2361-2371.
- Opatha, H.H.D.N.P. (2021<sup>1</sup>), Towards a Generic Model of Human Resource Management. *International Business Research*, Vol. 14, No. 7, pp. 58-68.
- Opatha, H.H.D.N.P. (2021<sup>2</sup>), A Simplified Study of Definitions of Human Resource Management, *Sri Lankan Journal of Human Resource Management*, Vol. 11, No.1, pp. 15-35.

- Opatha, H.H.D.N.P. (2021<sup>3</sup>), Applications in Human Resource Management: A Study of Authoritative Textbooks, *Sri Lankan Journal of Human Resource Management*, Vol. 11, No.2, pp. 38-63.
- Pattanayak, B. (2003), *Human Resource Management*, New Delhi: Prentice Hall of India.
- Schuler, R.S. and Youngblood, B.S.A. (1986), *Effective Personnel Management*, New York: West Publishing Company.
- Ruddock, L., and Ruddock, S. (2011), *Economics for the Modern Built Environment*, London: Taylor & Francis.
- Schwind, H., Das, H., Wagar, T., Fassina, N., and Bulmash, J. (2013), *Canadian Human Resource Management*, Toronto: McGraw-Hill Ryerson.
- Sethi, S and Kataria, N. (2017), The Human Resource Management Challenges in Construction Projects in a Large Construction Company, *International Journal of Development Research*, Vol. 07, No. 02, pp.11775-11779.
- Singh, B.P., Chhabra, T.N., and Taneja, P.L., (1995), *Personnel Management and Industrial Relations*, Delhi: Dhanpat Rai & Sons.
- Stewart, G.L. and Brown, K.G. (2014), *Human Resource Management: Linking Strategy to Practice*, 3<sup>rd</sup> ed, Hoboken, NJ: John Wiley & Sons, Inc.
- Stone, T.H. and Meltz, N.M. (1983), *Personnel Management in Canada*, Toronto: Hott of Canada Ltd.
- Toor, S. R. and Ofori, G. (2008), Leadership for future construction industry: Agenda for authentic leadership, *International Journal of Project Management*, Vol. 26, No. 6, pp. 620-630.
- Torrington, D. Hall, L., Taylor, S., and Atkinson, C. (2011), *Human Resource Management*, 8<sup>th</sup> ed, London: Pearson.
- Turner, J. R, and Muller, R. (2003), On the nature of the project as a temporary organization. *International Journal of Project Management*, Vol 21, No. 1, pp. 1–8.
- Walker, D. H. T. and Lloyd-Walker, B. M. (2015), *Collaborative Project Procurement Arrangements*, Newtown Square: Project Management Institute.
- Werther, B. W., and Davis, K. (1996), *Human Resources and Personnel Management*, 4<sup>nd</sup> ed, New York: McGraw- Hill Book Company.
- Winch, G.M. (2010), *Managing Construction Projects*, New Jersey: Wiley-Blackwell.