

Report On  
The Impact of Technology Adoption on HR Practices in the  
Bangladeshi Construction Industry

By

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An internship report submitted to the BRAC Business School in partial fulfillment of the  
requirements for the degree of  
Bachelor of Business Administration

BRAC Business School  
Brac University  
October, 2023

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## **Declaration**

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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**Md Naimul Islam Noyal**  
19104134

**Supervisor's Full Name & Signature:**

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**Mr. Md Shamim Ahmed**  
Senior Lecturer, BRAC Business School  
Brac University

## Letter of Transmittal

Mr. Md Shamim Ahmed  
Senior Lecturer,  
BRAC Business School  
BRAC University  
66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report

Dear Sir,

It is my pleasure to inform you that I have completed my internship report on “The Impact of Technology Adoption on HR Practices in the Bangladeshi Construction Industry” as a requirement for the internship program of Summer 2023.

Preparing the report was a different experience for me. It has helped me to implement the ideas that I learned during an internship in the Human Resource industry. In addition, it assisted me in understanding the effect of technology adoption on Human Resource practice.

I would like to express my deepest appreciation for your constant guidance and assistance throughout the duration of this report. Your feedback regarding the report's limitations would be greatly appreciated.

Sincerely yours,

---

Md Naimul Islam Noyal  
19104134  
BRAC Business School  
BRAC University  
Date: October 20, 2023

## **Acknowledgement**

Twelve weeks at Cityscape International Limited were an unforgettable experience for me. As a Human Resource Management major, it helped me connect my academic knowledge to my actual profession and provided me with real-world industry insights.

I would like to thank my internship supervisor, Mr. Md. Shamim Ahmed, for his support and advice throughout the period of my internship. The contributions that he made in terms of ideas and assistance were essential to the completion of this report.

In addition, I would like to thank my work supervisor, Mr. Md Shahidul Islam, Assistant Manager of Human Resources at Cityscape International Limited, and Mr. Wasim Akram, Executive of Human Resources at Cityscape International Limited, for their assistance in expanding my knowledge not only in the Human Resources industry, but also in a variety of other fields.

Lastly, I would like to acknowledge Brac University for its academic support over the past four years, as well as the Office of Career Service and Alumni Relations for assisting me with the internship paperwork.

## **Executive Summary**

There are three chapters in the report. The first chapter provides an overview of the organization's internship program. The second chapter describes the organization where the internship was completed. The third and final segment of the report has the heading "The Impact of Technology Adoption on HR Practices in the Bangladeshi Construction Industry." Initially, in the first chapter, I discussed the internship experiences and knowledge I gained as well as what the organization gained from me. Later in the second chapter, I have discussed the organization's practices in addition to its current situation. In the final chapter, I discuss the available technologies for managing human resources and the impact of applying these technologies. In addition, I discussed how Cityscape International Limited can use these technologies to facilitate human resources tasks.

**Keywords:** Technology, Construction Industry, Human Resource Management,

# Table of Contents

<b>Declaration.....</b>	<b>ii</b>
<b>Letter of Transmittal .....</b>	<b>iii</b>
<b>Acknowledgement .....</b>	<b>iv</b>
<b>Executive Summary .....</b>	<b>v</b>
<b>Table of Contents .....</b>	<b>vi</b>
<b>List of Tables .....</b>	<b>ix</b>
<b>List of Figures.....</b>	<b>x</b>
<b>List of Acronyms .....</b>	<b>xi</b>
<b>Chapter 1 .....</b>	<b>1</b>
<b>Overview of the Internship .....</b>	<b>1</b>
<b>1.1 Student Information .....</b>	<b>1</b>
<b>1.2 Internship Information.....</b>	<b>1</b>
<b>1.2.1 Period, Company, Department .....</b>	<b>1</b>
<b>1.2.2 Internship Company Supervisor’s Information .....</b>	<b>2</b>
<b>1.2.3 Job Scope .....</b>	<b>2</b>
<b>1.3 Internship Outcomes .....</b>	<b>3</b>
<b>1.3.1 Student’s contribution to the company.....</b>	<b>3</b>
<b>1.3.2 Benefits to the Student.....</b>	<b>4</b>
<b>1.3.3 Difficulties during the internship period .....</b>	<b>4</b>

<b>1.3.4 Recommendation</b> .....	5
<b>Chapter 2</b> .....	<b>7</b>
<b>Organization Part</b> .....	<b>7</b>
<b>2.1 Overview of the Company</b> .....	<b>7</b>
<b>2.1.1 Cityscape International Limited</b> .....	<b>7</b>
<b>2.1.2 Company Profile</b> .....	<b>8</b>
<b>2.1.3 Mission &amp; Vision of Cityscape International Limited</b> .....	<b>8</b>
<b>2.2 Product Offered by Cityscape International Limited</b> .....	<b>9</b>
<b>2.2.1 Real Estate Construction</b> .....	<b>9</b>
<b>2.2.2 Industrial Construction</b> .....	<b>9</b>
<b>2.2.3 Construction Consultancy</b> .....	<b>9</b>
<b>2.2.4 Construction Maintenance</b> .....	<b>10</b>
<b>2.3 Marketing Strategy &amp; Target Customer of Cityscape International Limited</b> .....	<b>10</b>
<b>2.4 Financial Performance and Accounting Practices</b> .....	<b>10</b>
<b>2.5 Organogram of Cityscape International Limited</b> .....	<b>11</b>
<b>2.5.1 Management Practice of Cityscape International Limited</b> .....	<b>12</b>
<b>2.6 Industry &amp; Competitive Analysis</b> .....	<b>12</b>
<b>2.6.1 Porters Five Forces of Cityscape International Limited</b> .....	<b>12</b>
<b>2.6.2 SWOT Analysis of Cityscape International Limited</b> .....	<b>15</b>
<b>2.7 Conclusion</b> .....	<b>15</b>
<b>Chapter 3</b> .....	<b>17</b>

<b>The Impact of Technology Adoption on HR Practices in the Bangladeshi Construction Industry.....</b>	<b>17</b>
<b>3.1 Introduction.....</b>	<b>17</b>
<b>3.1.1 Background .....</b>	<b>18</b>
<b>3.1.2 Objectives.....</b>	<b>20</b>
<b>3.1.3 Significance.....</b>	<b>20</b>
<b>3.2 Methodology .....</b>	<b>21</b>
<b>3.3 Findings &amp; Analysis.....</b>	<b>21</b>
<b>3.3.1 Human Resources Technologies .....</b>	<b>21</b>
<b>3.3.2 Impact of Adopting Technologies on HR Practices .....</b>	<b>24</b>
<b>3.4 Summary &amp; Conclusion .....</b>	<b>27</b>
<b>3.5 Recommendations/Implications .....</b>	<b>28</b>
<b>Reference .....</b>	<b>31</b>



## **List of Tables**

Table 1 Company Profile .....8

Table 2 SWOT Analysis of Cityscape International Limited..... 15

## List of Figures

Figure 1 Organogram of Cityscape International Limited.....	11
Figure 2 Model for HR Transformation by Dave Ulrich & Justin Allen.....	29

## **List of Acronyms**

CIL	Cityscape International Limited
HR	Human Resources
CV	Curriculum vitae
NDA	Non-Discloser Agreement
HRIS	Human Resource Information System
BIID	Bangladesh Infrastructure Innovation and Development
E-HRM	Electronic Human Resources Management
ATS	Applicant Tracking System

# Chapter 1

## Overview of the Internship

### 1.1 Student Information

Name	: Md Naimul Islam Noyal
Student ID	: 19104134
Department	: Brac Business School
Program	: Bachelors of Business Administration
Major 1	: Human Resource Management
Major 2	: Marketing

### 1.2 Internship Information

#### 1.2.1 Period, Company, Department

I worked as an Intern at Cityscape International Limited. It is a construction firm in Bangladesh. I started my 12-week internship on May 15, 2023 and ended on August 16, 2023. During my internship period, I was assigned to the Human Resources Department. The Human Resource Department of Cityscape International Limited manages the human resource related things such as, operational activities, payroll & recruitment. In the Human Resource Department, there were 6 members including the interns.

### **1.2.2 Internship Company Supervisor's Information**

In Cityscape International Limited, Mr. Md Shahidul Islam, Assistant Manager of Human Resources Department, was assigned as my supervisor. All employees of the Human Resources Department report to him. During my Internship, I reported to Mr. Wasim Akram Shojib, Senior Executive of the Human Resources Department.

### **1.2.3 Job Scope**

The Human Resources Department of Cityscape International Limited is involved in various types of tasks related to human resources. This department is directly connected with the management team. The Human Resources Department needs to involve other departments to ensure employee satisfaction as well as the management's requirements.

In CIL, the HR Department is involved in the lifestyle of any employee of CIL. When management or any department needs any employee for a position HR team collects the requirements and based on the requirement HR teams starts searching for the preferable candidate for the post. Here various steps are involved such as Job Advertisements, Internal CV Sourcing, Communicating with different agencies for contractual candidates. Then CV Analyzing and short-listing candidates and taking interviews for the dedicated post. CIL HR Team also involved in performance appraisal for all employees of CIL. In CIL, it follows monthly performance appraisal and HR Team collects the Appraisal Data which will help HR & the Management to determine the perfect employee for retention. On the other hand, the HR Team plays a vital role in payroll activities & employee exit activities.

As an intern, I have learned a lot while working with the HR Team. Furthermore, I was assigned to perform many tasks and they are,

- Internal auditing of employee personal files.
- CV Shortlisting.
- Maintaining HRIS Database.
- Employee Personal Files maintaining
- Collecting Personal Appraisal Database and Entering them into HRIS Database.
- Preparing Interview Schedule.
- Co-ordinating in Interviews.
- Completing New Joiners Formalities.
- Preparing Non-Disclosure Agreement for both new & Existing employees.
- Calling candidates for Interviews.
- Assisting team members in Interviews.
- Assisting in payroll activities such as calculating leaves.
- Preparing Offer Letters for new employees.
- Calling selected employees to join.

### **1.3 Internship Outcomes**

#### **1.3.1 Student's contribution to the company**

In regular companies, the input of the intern might not be important, but it is different for a company like CIL where the HR Department has limited manpower for 130 employees. In CIL, Interns are considered as HR Trainees and they expect quality outcomes. While working with the HR Department, I got the opportunity to learn HR works and I have utilized my learnt knowledge to complete the tasks that were assigned to me and fulfill their expectations. During my internship period, I helped the team in CV sorting. I have also posted in Bdjobs for various positions. Based on the requirements, I have sorted CVs from the Bdjobs CV Bank. On the

other hand, I have called candidates for interviews. Furthermore, I have also helped the legal team while preparing Non-Disclosure Agreements as a member of the HR Team. I have also completed an internal audit of employee personal files and collected the missing documents of existing employees. When an employee joined the company, I used to input their data on the HRIS software. Lastly, I was given various tasks that are connected to real life HR problems and I have successfully completed all of them.

### **1.3.2 Benefits to the Student**

According to me, during my internship, the best thing I have got is real life experience. A student like me, who has no real-life experience, is able to see the real-life HR problems and how people on the HR team handle those problems. Secondly, after my internship, I have the knowledge of the HR problems in Bangladesh perspectives. Thirdly, during my internship period, I was able to know the importance of proper documentation. Finally, I was to know the importance of Human Resource work in an organization. The above benefits that I have achieved during my internship might not be important for a person who is working in this field for many years but as a fresh graduate it is important to me and it will help me in future.

### **1.3.3 Difficulties during the internship period**

In my internship period, I didn't face much problem and few problems that I have faced that are faced by all HR employees and students in CIL. Initially, the problem I have faced is, employees of CIL are not very co-operative. During an internal audit in CIL, whenever me & my colleague called any employee for any document, they used to show disinclination to provide the necessary document. Another problem that I have faced is related to creating a salary account in a selected bank. CIL used to provide salaries through the Eastern Bank salary account. All employees need to create a salary account in that bank. To create a salary account,

the bank requires various documents and it was a challenge to collect all required documents from the employees. I was given a task to prepare an NDA and get it signed by all employees of CIL. It was a challenge for me to get NDAs signed by the employees as it was in a 100 Taka Stamp paper and employees were refused to sign it for fear I used to explain them “What & Why” questions. It is important to mention that, whenever I faced any problem, I got the support from my superiors.

#### **1.3.4 Recommendation**

Cityscape International Limited is a growing construction company in Bangladesh. As I worked there as an Intern in the Human Resources Department, I can recommend some changes that might help CIL to make improvements. First of all, I think CIL should fix the working hours for the employees. Officially, CIL follows a working hour that starts from 9:00am to 6:00 pm. During my internship period, I had noticed that almost all of the employees needed to leave the office at 7/8 pm. They need to join the office on time the next day. From my perspective, it will reduce the productivity of any employee. CIL needs to ensure the working hour for all of the employees in order to get the best possible outcomes from them. Secondly, CIL should buy good HRIS software which helps to complete HR day to day activities easily. It is to mention that HR always gets involved with management to support them in taking various strategic decisions. In CIL, the HR team needs to conduct many tasks manually and it makes the HR tasks slower & difficult. A good HRIS will be able to boost the regular HR work so that HR can get involved in other difficult tasks that results in a perfect outcome. Thirdly, CIL should work on employee satisfaction. During my internship period, I had noticed that there is a lack of employee satisfaction among the employees of CIL. Here, management is



busy thinking and expanding their business but they are not concerned about employee satisfaction which is not good for any organization. Proper retention policy, increments & reward policy might help CIL to achieve employee satisfaction. Lastly, CIL should expand the CV sourcing process. In CIL, it usually follows internal CV sourcing & Bdjobs profile for sourcing CV. It is not enough for an organization to get enough qualified candidates. CIL HR team should participate in various career expos and also use various media such as “LinkedIn”, “Facebook” for sourcing CVs.

## **Chapter 2**

### **Organization Part**

#### **2.1 Overview of the Company**

##### **2.1.1 Cityscape International Limited**

Cityscape International Limited is a construction and real estate company that was founded in 1940. It operates in a variety of markets and pioneers' green construction in Bangladesh.

The Cityscape brand established itself as a brand by participating in huge and important tasks. The organization is known for its daring and brave thinking, and it strongly pushes for innovation, constantly challenging the boundaries of conventional construction processes. Furthermore, Cityscape has positioned itself as a pioneer in the use of Green construction technology, leading the way in the forefront of sustainable construction approaches. Cityscape is not only a brand of architectural excellence, but also a catalyst for positive effect and long-term enhancement.

This organization is led by a highly qualified board of Directors & its Managing Director Is Mr. Nahid Sarwar. He is a pioneer businessman of Bangladesh. On the other hand, it has dedicated leader for operational excellence such as, Mrs. Sharmin Binte Siddique, who is the Director of External Affairs, she deals with external operations for the smooth run of the business. It has a Director Operations Mr. Lt Col Sheikh Abidur Rahman who deals with the overall operations of the company. Director of Human Resources, Mr. Mustafa Moin Sarwar, Deals with the recruiting & Employee management.

Cityscape International Limited has achieved various awards for its visionary works. Some of the awards are mentioned below, In the year of 2017, Cityscape was awarded with a Lead Platinum Certification by US Green Building Council. In the same year, it achieved BIID

Certification by Bangladesh Infrastructure Innovation & Development. In the year, 2012, Cityscape achieved ISO certification by Bureau Veritas Certification for occupational health safety.

### 2.1.2 Company Profile

<b>Name Of the Organization</b>	<b>: Cityscape International Limited</b>
<b>Type of Organization</b>	: Private Limited Company
<b>Nature of Business</b>	: Construction & Real Estate
<b>Number of Branches</b>	: 1
<b>Chairman &amp; Managing Director</b>	: Nahid Sarwar
<b>Director</b>	: Mustafa Moin Sarwar
<b>Address</b>	: 53, Cityscape Tower, Gulshan Avenue Road, Dhaka
<b>Number of Employees</b>	: 180
<b>Website</b>	: <a href="http://www.cityscapeintl.com">www.cityscapeintl.com</a>
<b>Email</b>	: <a href="mailto:info@cityscapeintl.com">info@cityscapeintl.com</a>

*Table 1 Company Profile*

### 2.1.3 Mission & Vision of Cityscape International Limited

#### **Vision**

**‘Our vision is to become the highest value provider of eco-friendly real estate building and construction services, and technical expertise’**

Cityscape International Limited aims to be the highest value provider in the industry that offers eco-friendly real estate building, construction services & technical services to its clients.

## **Mission**

**‘To promote sustainable living and foster enduring relationships with our people, partners, and clients.’**

Cityscape International Limited seeks to build relationships through giving innovative construction services which affects the lifestyle of its stakeholders. Furthermore, Cityscape wants to build eco-friendly construction technology which falls under Green-Constructions.

## **2.2 Product Offered by Cityscape International Limited**

### **2.2.1 Real Estate Construction**

Cityscape offers real estate construction services that help to construct new buildings. It includes planning, design, permitting. Here the cityscape builds residential infrastructures. Cityscape has various professionals such as architects, civil engineers, constructors in this sector.

### **2.2.2 Industrial Construction**

Cityscape offers industrial construction services that focus on industrial infrastructures. Industrial constructions include factories, warehouses, manufacturing plants, power plants. In industrial construction, quality standards required by the government are highly maintained.

### **2.2.3 Construction Consultancy**

Cityscape offers its valued clients construction consulting services. Project management, design and planning, cost calculation, quality assurance, risk assessment, and regulatory compliance are just a few of the many areas that it covers. Furthermore, to ensure that construction projects are successfully completed, on schedule, under budget, and in compliance

with all applicable legal and safety requirements, construction consultants work closely with clients.

#### **2.2.4 Construction Maintenance**

Cityscape offers the maintenance service for any constructed building. This service covers the overall maintenance such as regular inspections, routine repairs, upgrades, and renovations to extend a building's or facility's useful life. There are professional engineers & technicians who are always ready to assist the service.

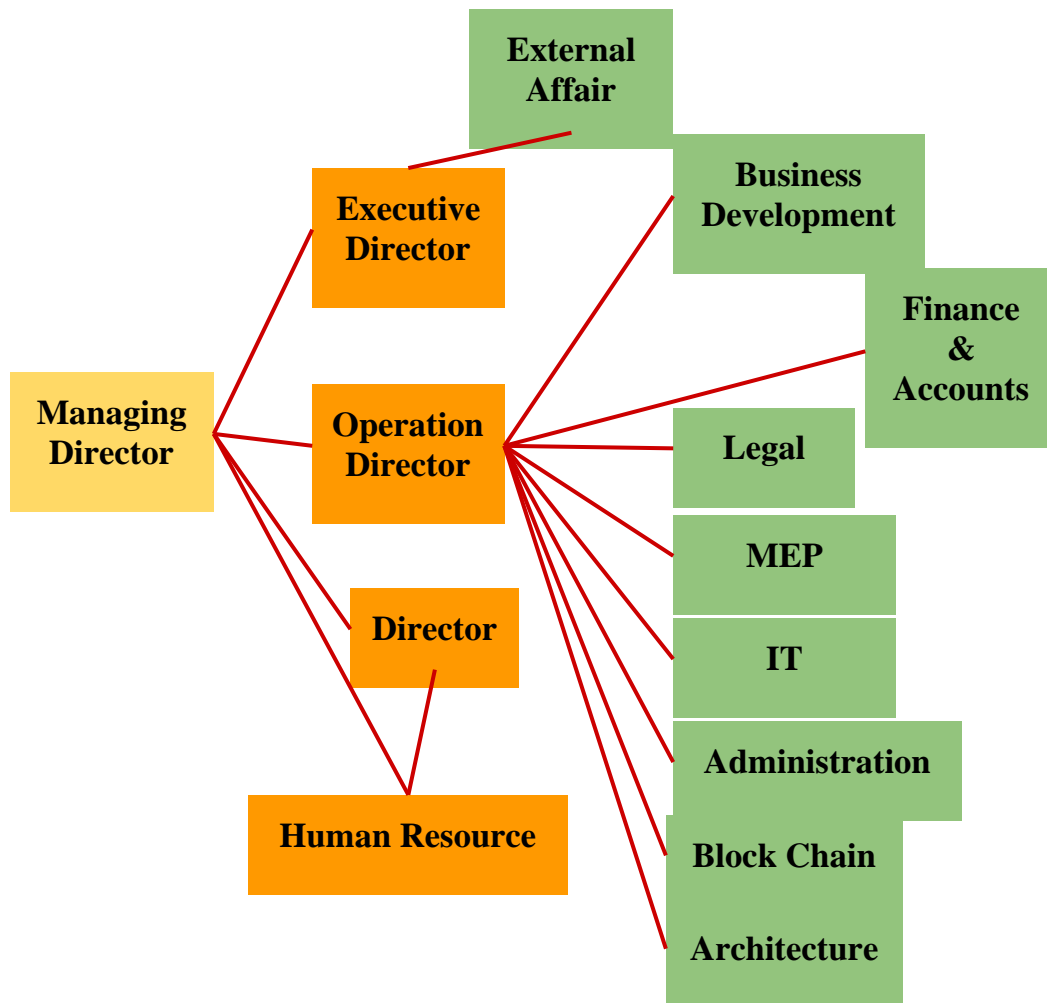
#### **2.3 Marketing Strategy & Target Customer of Cityscape International Limited**

Cityscape International limited is a construction company that constructs projects that are provided by the government and some specific private company. So, it does not have any specific marketing strategy & target customer.

#### **2.4 Financial Performance and Accounting Practices**

Due to security concern, Cityscape International limited does not disclose any financial & accounting information

## 2.5 Organogram of Cityscape International Limited



*Figure 1 Organogram of Cityscape International Limited*

### **2.5.1 Management Practice of Cityscape International Limited**

Cityscape International Limited follows usual management practices which is basically Top-Down Management practice. Here, the Board of directors can suggest any idea but all decisions are generated by the Managing Director. In this company, different directors play different roles. The Operational director looks after the operational activities & administrative activities of the company, whereas the Executive Director looks after the external affairs of the company. The Director of the company looks after the Human Resource activities of the company. He also helps the Managing Director for decision making. When the Managing Director goes abroad, all activities are monitored by the Operational Director.

Now, All Managers play the role of Department Head, they lead their teams. In some cases, when the Manager is not available, the Assistant Manager takes the charge.

Lastly, in every project site, there is a Project Manager who leads the project work and reports to the head office.

## **2.6 Industry & Competitive Analysis**

### **2.6.1 Porters Five Forces of Cityscape International Limited**

#### **Threats Of New Entrants- Moderate**

The threat of new entrants in the construction industry in Bangladesh is moderate. In Bangladesh, there are a number of barriers to entry, for example, it will require a large capital for investment. On the other hand, there are several government regulations for this industry. There is also a lack of skilled labor. However, the industry is also growing rapidly and it will attract new entrants to investing in this industry.

### **Power Of Buyers- High**

The bargaining power of buyers in the construction industry in Bangladesh is high. Buyers have a number of options to choose from, and they can often negotiate for lower prices. This is due to the large number of construction companies in the country, as well as the fact that many buyers are government agencies or large corporations. Cityscape International Limited is struggling with this as it is a small company in this market. In this competitive market, good quality with competitive charges can only help to sustain.

### **Power of Suppliers- Moderate**

The bargaining power of suppliers in the construction industry in Bangladesh is moderate. There are a number of suppliers of construction materials and services, as a result, Organizations can bargain with them and get those with a competitive price. but in some cases, some of them have a strong bargaining position due to their control over key inputs. For example, cement suppliers have a strong bargaining position as they are a key input in many construction projects. On the other hand, Construction itself is a huge industry that is growing day by day so suppliers are also growing which will reduce the power of bargaining.

### **Threats of Substitute- Low**

In Bangladesh's construction business, the threat of substitute products or services is low. This is because the substitute product or services are not that much. The probable substitute product or services for construction business can be considered as maintenance or renovation of existing structures. However, there is some threat from modular construction. It is basically a style of construction that uses prefabricated components and it poses considerable risk.



Modular building is becoming more popular in Bangladesh since it is more efficient and cost-effective. This may constitute a threat to established building firms, as modular construction firms frequently offer lower pricing.

### **Competitive Rivalry- High**

The rivalry among existing firms in the construction industry in Bangladesh is high. There are a large number of construction companies in the country, and they are all competing for a share of the market. This has led to intense competition, which has driven down prices and margins. The big giant companies in Bangladesh are dominating the market. Companies like Cityscape International limited are struggling to sustain in the market.

## 2.6.2 SWOT Analysis of Cityscape International Limited

<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>● Wide range of services offered such as designing, construction, project management, maintenance etc.</li> <li>● Strong record of completing big projects.</li> <li>● Have skilled engineers &amp; technicians with high experience.</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>● Depends on a few clients</li> <li>● Limited Financial Resources</li> <li>● Have limited brand recognition</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>● The Construction market is growing in Bangladesh.</li> <li>● Government is investing in several infrastructure projects.</li> <li>● Demand for green construction is also growing.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>● Competition in the construction market is rising day by day.</li> <li>● Costs of materials have risen.</li> <li>● Costs of skilled laborers also have risen.</li> </ul>

*Table 2 SWOT Analysis of Cityscape International Limited*

## 2.7 Conclusion

Cityscape International Limited was established in 1940 as a construction and real estate company. It pioneered green construction in Bangladesh and created a reputation by taking on large and essential projects. The organization is known for its bold and brave thinking, and it is constantly breaking the boundaries of conventional construction procedures. Furthermore,

Cityscape has proven itself as a pioneer in the use of Green construction technologies, setting the standard for sustainable construction practices. Cityscape is more than just a brand of architectural excellence; it is also a catalyst for positive impact and long-term improvement.

## Chapter 3

# The Impact of Technology Adoption on HR Practices in the Bangladeshi Construction Industry

### 3.1 Introduction

Human resources management includes a broad range of activities involved in the recruitment, selection, and management of workers within an organization. Although there are similarities between fundamental HR functions and responsibilities in the construction industry and other industries, the approaches employed by human resources to fulfill these commitments may differ.

Due to the project-oriented nature of the construction industry, the primary focus of the HR manager's role entails collaborating with construction managers in the execution of their tasks and obligations. Furthermore, it is essential for them to engage in collaborative efforts with project managers and contractors. In addition, it is imperative for HR managers to maintain communication with relevant stakeholders in order to effectively classify and record the various roles and duties associated with each project. The supplementary responsibilities encompass the comprehensive description of the entire processes necessary for a project, with the aim of determining labor requirements and facilitating the execution of these activities in a more seamless and efficient manner. Human resource professionals adopt a range of emerging technologies that fall under the umbrella term "Electronic Human Resource Management" (E-HRM). **(E-HRM: Definition, advantages, practices, 2023)**. Electronic Human Resource Management (e-HRM) has the potential to enhance the capabilities of both managers and

employees in carrying out various HR responsibilities. This results in a reduction in the administrative responsibilities that the Human Resources (HR) department is required to do, allowing it to allocate more attention to the strategic aspects of Human Resource Management (HRM) and subsequently decrease its workforce size. **(Al-Harazneh, 2021)** Bangladesh, as the eighth most densely populated country globally, has witnessed the rise of a strong building business due to population growth and the demand for residential infrastructure. In 2022, the construction industry in Bangladesh was worth USD 28.55 billion, and it is expected to be worth USD 49.98 billion by 2031, growing at a CAGR of 6.42% between 2023 and 2031. This growth is due to the country's rapidly expanding urban and commercial areas. The recent increase of the country's building industry has contributed to the rise of the market there. **(Growth Market Reports, 2020)**. This paper examines how recent technological developments have influenced traditional approaches to human resource management.

### **3.1.1 Background**

We are living in an era where technology is involved in every sector. Unlike other sectors, technology has also influenced human resource management. Before proceeding, we need to know what is Electronic Human Resource Management or E-HRM? Human resource management (HRM) transformed into e-HRM as a result of the widespread use of computers in the workplace and the rapid development of Internet technology. **(Findikli & Rofcanin, 2016)**. It means, E-HRM is the transformation of HRM where IT equipment is vastly used. With the development of E-HRM and virtual actions in the business world, the HR profession must overcome a significant obstacle. However, E-HRM has established itself as the advanced HRM. Many of the tasks associated with HR management also fall under the responsibility of E-HRM. These include: workforce and organizational planning, resource acquisition, performance enhancement, employee recognition, and resource maintenance. The E-HRM

technology facilitates access to a portal that allows managers, employees, and HR experts to conveniently access, retrieve, and modify essential information required for effective HR management within the organization. Moreover, the use of E-HRM results in a reduced demand for HR specialists due to the lack of intermediaries in HR processes. **(Role of electronic human resource management in contemporary human resource management, 2015)**. The use of E-HRM, a new technological advancement in the field of human resource management, has been observed across many organizations. Numerous companies that have traditionally adhered to conventional HR management systems are presently adopting this new technology. It causes a positive as well as a negative impact. According to a journal by **Findikli.M.A & Rofcanin.Y**, they argue that E-HRM makes it possible to classify and reclassify HR data with relative ease, increasing the transparency of HR processes. The increased internal prominence of HR is one way in which e-HRM promotes a more helpful company culture. Additionally, it includes decentralized HR functions inside the firm and provides full support for HR and other important procedures. On the other hand, an organization may need to allot more money towards the purchase and installation of new technologies. It's possible that most up-and-coming groups won't have the funds to cover these costs. It should be noted that massive sums of money must be spent on construction work by every construction company. It could end up costing them more money. Lastly, every new innovation possesses both advantages and disadvantages. Understanding the reaction of these new developments by the surrounding environment that has been applying previous approaches is also of major importance. As technology continues to advance, it is essential for HR professionals to accept these changes and understand their implications.

### **3.1.2 Objectives**

#### **Broad Objective**

Determine the technologies that are used in Human Resource management and what are the impact of adopting those technologies on Human Resource practices in Bangladeshi construction companies.

#### **Specific Objectives**

1. Types of technologies are used in Bangladeshi Construction Companies to manage the Human Resources
2. Impacts of adopting the technology on HR practices

### **3.1.3 Significance**

This project focuses on "The impact of technology adoption on human resource practices in the Bangladeshi construction industry," a topic that is crucial in the current era. We live in an age in which technology influences every aspect of life. Technology has made life very simple and quick. In contrast to other industries, technology has also affected human resource activities. To determine the significance of studying this topic, we must understand the role of human resources in construction companies. In a construction company, HR is primarily responsible for employee-related tasks such as hiring, payroll, and training. In a construction company, HR is also responsible for ensuring employee safety measures. HR technologies facilitate the completion of HR tasks by HR personnel. It should be noted that HR primarily interacts with employees; therefore, if any HR technologies are implemented in HR, all employees must adopt them. It will have an effect on both the organization and the employees. HR professionals cannot implement this without understanding how employees adopt technology-based HR practices.

In addition, this initiative will assist HR professionals in identifying the impact that technology has on HR practices. HR personnel will be aware of the pros and cons of HR-technologies and be able to work accordingly.

### **3.2 Methodology**

In this paper, Qualitative data was used to analyze the impact of technology adoption on human resource practices in the Bangladesh construction industry. In addition, both primary and secondary methods of data collection were used to collect qualitative data in this study. Sources of primary data include an interview with an Assistant Manager of the Human Resources Department at Cityscape International Limited, and sources of secondary data include research articles, reports published on the relevant industry, periodicals, etc.

### **3.3 Findings & Analysis**

Here, the Qualitative Data that were collected through primary & secondary collection methods are presented.

#### **3.3.1 Human Resources Technologies**

Construction companies in Bangladesh have various types of operational works to complete daily. The Human Resources department needs to cooperate with each & every employee from different departments. To make Human Resource activities easier, professionals are implementing technology which is basically E-HRM in HR. For this paper, I have talked with Mr. Md Shahidul Islam, Assistant Manager Human Resources Department at Cityscape



International Limited & He informed me of some technology that can be used in the HR Department of construction companies like CIL. The Technologies that can be used in Human resources department are as follows,

**Applicant Tracking System (ATS):** The applicant tracking system (ATS) is software used to manage the recruiting and employment process, including job postings and job applications. It organizes and makes searchable data about job applicants. As implied by its name, an ATS monitors applicants throughout the hiring process. It facilitates the scheduling of interviews, issues notifications and alerts, and sends automated emails to candidates and employees, such as recruiters and recruiting managers. Mr. Md Shahidul Islam (Assistant Manager of HR at CIL) says, In Cityscape International Limited as it is a construction company, it needs to hire employees frequently. He & his team need to complete the whole process manually that starts from CV shortlisting. He also added that if the Applicant Tracking System is implemented in CIL, it will make the process easier. According to a journal published in **Forbes Advisor**, using an ATS can help businesses follow any applicable rules and regulations in the hiring process. Businesses may save both time and money by automating the recruitment process, all while ensuring they are hiring the most competent employee.

**Pay-Roll Software:** Software for managing payroll is one of the most important functions for any organization, no matter its size or industry. Ensuring employees are paid accurately and on time is essential for employee satisfaction and retention, and it can also have an impact on the company's overall financial health. In the interview session with Mr. Md Shahidul Islam, He added that the HR Team in CIL need to spend a huge time in the payroll activities. It also takes time to complete this task which results in dissatisfaction among the employees. After

mentioning the “Payroll Software” as a technology in the Human Resources sector, he added that it will save a lot of time that they can utilize it in another task. Furthermore, according to an article named **Benefits of payroll software. How a payroll can benefit your SME & startup**, a Pay-Roll software can make the Human Resource professional benefited in many ways & some of them are,

- It can calculate without making any error
- It will reduce the time and make the pay-roll system fast.
- By a pay-roll software, it ensures the data security & secure the employee data & other important data.
- Payroll management software can significantly reduce the costs related to handling payroll manually.
- It provides a pay-slip generation facility that facilitates generating pay-slip with necessary information.

**Performance Management Software:** Performance management is an important role of any Human Resource. It helps the HR to evaluate the employees for identifying the skilled employee for the future. It also helps the HR professionals as well as the management team to determine whom to reward. In Cityscape International Limited, performance management is evaluated every month. It also takes a huge time as it needs to get filled by the department heads & also by the HR team. If a performance management software can be introduced in CIL, the evaluation process will be completed within a click. Performance management should be a continuous process for the duration of an employee's career. Using suitable performance management software allows HR to make data-driven decisions concerning employee growth, organizational goals, and business growth. (Martin et al.2023). Here, it indicates the benefit of using a performance management system.

**Time & Attendance tracking software:** Time & attendance tracking software is the most commonly used software in Bangladesh. In every organization, there is a fixed working hour. To maintain the discipline all employees, need to come on time & leave the office on time. Time & Attendance tracking software track whether the employees are coming on time & how many days employees attended the office. This software track employees several ways and the most common ways are, through Biometric Recognition & Face Recognition According to Mr. Md Shahidul Islam, In Cityscape International Limited, they track employee attendance & time through a face recognition system. It helps them to track employees easily & count attendance.

**Human Resources Information System (HRIS):** Human resources information system enables HR professionals to store employee databases safely. It is a very useful system for any HR team. Mr. Md Shahidul states that, they are working on implementing HRIS in CIL. Currently they need to store employee databases manually which is very risky and time consuming and in the current system the risk of losing data is high. On the other hand, whenever any employee information is required, it takes a lot of time to find the data. As a Department Head, according to him, a HRIS can help them to store employee databases securely. A HRIS can analyze the employee data which will help HR personnel.

### **3.3.2 Impact of Adopting Technologies on HR Practices**

In this modern edge, there are a lot of technologies that are introduced in Human Resource activities that I have discussed in the previous part. The above-mentioned technologies needed to be adopted by the Human resource individuals. In this part, I will explain the impact of technology adoption on HR practices according to Mr. Md Shahidul Islam, Assistant Manager of Human Resource Management, Cityscape International Limited.

**Positive Impact of Technology adoption on Human Resources practices:** According to Mr. Md Shahidul Islam, as a HOD of Human Resources Department of Cityscape International Limited, He feels the most important impact that technology has on HR practices is it has made the human resources activities easier. By adopting new technology in human resource activities, HR works can be completed within a click. In his statement, he wanted to say that technology has changed the work of HR. Most of the Human resource activities like, recruiting, CV shortlisting, payroll activities, performance management system, attendance tracking, and most importantly employee database management has become easier. Furthermore, in a construction company like Cityscape International Limited, for operational work, the HR team needs to recruit employees frequently. Recruiting itself is a very long procedure and it starts with CV shortlisting. Technology has made this process very easier. Now using an Applicant tracking system, this recruitment process has become very easier. Though Cityscape International Limited does not have any ATS, the Head of HR assumes that it will make his work easier. On the other hand, one of the most important tasks for HR is Payroll activities where Cityscape spends a huge time calculating the salaries where there is a chance of mistake. Due to the positive impact of technology, this activity can be possible more easily & securely. He also talked about the importance of HRIS in Human resource management. Currently, in CIL, the HR team needs to maintain an employee database which contains very confidential data, manually. He mentioned that HRIS could make the work more efficient. According to the Head of HR team, adopting those technologies on human resources practices will impact positively. Recruitment and training can be automated with the help of HR technologies. It can also facilitate the monitoring of attendance and performance. By analyzing data and providing insights, technology might help HR professionals in identifying and addressing workplace

issues, such as biases or low employee engagement. **(Pan, 2023)**. HR technologies might help HR professionals in saving time, increasing productivity, and making better decisions.

**Negative Impact of Technology adoption on Human Resources practices:** Mr. Md Shahidul Islam, did not talk much on the negative impact on technology adoption in HR practices as he is taking this transformation more positively. As a negative impact, he mentioned that most of the existing employees are more used to the manual HR practices. They might become demotivated when they won't be able to adopt the new Human Resource technologies. HR needs to train them for the HR technologies. Another demerit of Technology adoption he mentioned that, most of the existing employees are not cooperative with HR team as a result they will delay in the process which will create a huge time to solve but he also mentions that proper training can solve this problem. According to an online journal published on **America's Back Office**, the author identifies various negative impacts that can occur due to technological advancement of Human resource activities. Human Resources need to work with humans which means HR needs to work with employees. Due to technological advancement, human interaction will be less. Not all of them can adopt the technology easily so it will also create a problem. Technology can become the reason for unemployment. Lastly, it will increase the expense of maintaining the technology.

### **3.4 Summary & Conclusion**

To summarize, Technology has an impact on HR practices that should be addressed accordingly. Through qualitative data that has been collected by both primary & secondary methods, technology has more positive impact than the negative one. Besides, everyone at this time is taking the technology adoption more positively. Human resource professionals are talking about the positive impact of technology. Moreover, major Human Resource works such as Recruiting, payroll activities, performance appraisal, employee data management system will be easy to maintain if proper technology is used and HR personnels are taking it as a positive impact of technology adoption. They are also concerned about the negative impact of the technology adoption such as it will increase the expense of the organization. All employees need to be trained to adopt the technology. There is a chance to make employees demotivated. Professionals also think that it is possible to cope up with the negative impact if it can handle properly.

Lastly, to conclude every new thing has its own impact on the sector. Technology is used for the betterment of the people. It has made the tasks easier & secure. In this paper we are able to know the different technologies that are used to manage the Human Resources. Here I have also talked about the both positive & negative impact of technology adoption in Human resource practices based on the construction Industry. To cope up with the negative impact, the recommendations/implications proposed in this paper might work.

### **3.5 Recommendations/Implications**

As of now, in this paper, we have come to know about the technologies that are used to manage the Human resources. We are also able to find out the impacts of adopting the technologies in Human resource practices. Here, are some recommendations that are based on the findings in this paper that will help the Human resource professionals to adopt the technologies on Human Resource practices,

**Identify the need of Technology in HR practices:** There are several technologies available. To make the technologies effective Human resource professionals have to identify why & which technologies are needed to implement. It will help the HR personnel to use the resources more cost effectively.

**Complete a proper analysis about the impact:** In this paper, we have found the impacts of technology adoption based on the overall construction industry. Not every organization is the same. Before implementing a new technology in Human Resources, HR professionals should think about the impact of the technologies. It will help the HR team to manage the impact.

**Prepare an Implementation plan:** Proper planning will help to implement any new thing successfully. Human resource teams need to plan according to the skills & resources that the organization has. It will also help the HR professionals to cope with the negative impacts. This planning may include training, installing, resource planning etc.

**Evaluate the Impact:** After implementing the technologies that are needed in the organization, HR personnel should evaluate the impact. Evaluation helps the organization to make the change in the new system. It will reduce the negative impact of technology adoption. Evaluation will help the HR personnels for making the new technology adoption more easily and smoothly.

According to a journal published by **Dave Ulrich & Justin Allen**, they propose four phase of HR transformation.



*Figure 2 Model for HR Transformation by Dave Ulrich & Justin Allen*

For transforming HR, the first step should be Business context where HR leaders must know the business context & make a case for change accordingly. Here they are asked to know the “Why” question. Which means they need to know why their technology is needed. Secondly, H leaders are asked to think about the outcomes where they will think about the “What” questions. For example, in this phase they will think about the outcome after transforming the



technology. Thirdly, HR leaders are asked to design or plan for transforming. In this phase the HR Leaders will work on the “How” question. And lastly, HR leaders are asked to define with whom the transformation will take place. Basically, here the HR leader will define the “Who” question.

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