

**Internship Report on**

**“Implementing Automation of Business Processes**

**By Digitization of Information Systems at Dhaka WASA”**

**Submitted To:**

#### **Dr. Dhiman Kumar Chowdhury**

#### **Professor and Chairman**

Department of Accounting & Information Systems, Faculty of Business Studies

University of Dhaka.

**Submitted by:**

Shyed Shahriar Housaini

ID: 10916046

**Date of Submission:**

**Letter of Transmittal**

**Acknowledgment**

**Executive Summary**

(In three separate pages will be completed before draft final report)

**Table of Contents**

|  |  |  |
| --- | --- | --- |
| ***CHAPTERS*** | ***TOPICS*** | ***PAGE NUMBER*** |
| **Chapter 01** | **Introduction** |  |
|  | 1.1 Background / Origin of the report |  |
|  | 1.2 Objective of the report |  |
|  | 1.3 Scopes |  |
|  | 1.4 Methodology |  |
|  | 1.5 Limitations |  |
|  |  |  |
| **Chapter 02** | **Organization Overview** |  |
|  | History of DWASA |  |
|  | Organizational Profile |  |
|  | Purpose/ Citizen Charter |  |
|  | Objectives/ DWASA Mandate |  |
|  | Mission & Vision |  |
|  | Business Processes of DWASA |  |
|  | Why DWASA Should Automate |  |
|  |  |  |
| **Chapter 03** | **Job Experience** |  |
|  | 3.1 Drainage Operation and Maintenance works |  |
|  | 3.2 Projects Works |  |
|  | 3.3 Planning and Design Works |  |
|  | 3.5 Training by DWASA |  |
|  |  |  |
| **Chapter 04** | **Key Areas for Automation** |  |
|  | 4.1 Dhaka WASA web pages. |  |
|  | 4.2 Dhaka WASA web Portals. |  |
|  | 4.3Digital/Online Billing and Bill Payment. |  |
|  | 4.4 Accounting / AIS |  |
|  | 4.5 GIS |  |
|  | 4.6 MIS |  |
|  | 4.7 Supervisory control and data acquisition (SCADA) system for water production facilities. |  |
|  | 4.8 District Metered Area (DMA) / Water distribution network system monitoring, management and control with SCADA. |  |
|  | 4.9 BPR and e-Government Procurement (e-GP) System |  |
|  | 4.10 Digital/Online Portal for office work management. nothi.gov.bd or For Dhaka WASA - https://dwasa.nothi.gov.bd/ Working with digital/online/paperless documents, letters, files etc. |  |
|  |  |  |
| **Chapter 05** | **Digitization of Information Systems of DWASA** |  |
|  | GIS |  |
|  | MIS |  |
|  | Personal information management System (PIMS) |  |
|  | AIS |  |
|  |  |  |
|  |  |  |
| **Chapter 06** | **Digitized & Automated Business Processes and Customer Services** |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **Chapter 07** | **Case Study : AIS, Billing and Online/Digital Payments.** |  |
|  |  |  |
|  |  |  |
| **Chapter 08** | **Recommendations & Conclusion** |  |
|  | 8.1 Recommendations |  |
|  | 8.2 Conclusion |  |
| **Chapter 09** | **Appendix** |  |
|  | 9.1 Brief Notes |  |
|  | 9.2 List of Abbreviation |  |
|  | 9.3 References |  |
|  | 9.4 Bibliography |  |



*CHAPTER 01 – INTRODUCTION*



Water (chemical formula H2O) is an inorganic, transparent, tasteless, odorless, and nearly colorless chemical substance, which is the main constituent of Earth's hydrosphere and the fluids of all known living organisms (in which it acts as a solvent). It is vital for all known forms of life, even though it provides no calories or organic nutrients. "Water" is the name of the liquid state of H2O at standard conditions for temperature and pressure.

Water plays an important role in our economy. Humans and modern civilization and also city life cannot sustain without clean water and sanitation. The size of human settlements are largely dependent on nearby available water. Agriculture, Fishing and Poultry needs water and sewage system. Water is an excellent solvent for a wide variety of substances both mineral and organic; as such it is widely used in industrial processes and in cooking and washing. Oil/Natural gas/Minerals production process, Metal, Paper, Garments, Leather products or other manufactured products required water. Large quantities of water, ice, and steam are used for cooling and heating, in industry and homes.

Water Resources are seas, rivers, canals, lakes, springs, rain, underground water wells and glaciers etc. Water occurs as both "stocks" and "flows". Water can be stored as lakes, water vapor, groundwater or aquifers, and ice and snow. Of the total volume of global freshwater, an estimated 69 percent is stored in glaciers and permanent snow cover; 30 percent is in groundwater; and the remaining 1 percent in lakes, rivers and the atmosphere.

Water supply and distribution network system and Sewer system development, operation, maintenance is the most important public service for well-being of the city duelers. Water Purification by filtration and disinfection, if required- is carried out at water treatment plants. Water from deep water wells does not need purification ant directly pumped into supply network.

Water resource management, clean drinking – water production, Potable Water Distribution and Sewage or Waste-water management, Customer services, Billing, Revenue Collection, Audit and Accounting are the main activities of Water Supply and Sewerage Authority.

Currently I have the opportunity to work as an engineer at Dhaka WASA. Engineers at Dhaka WASA are related to procurement of goods and services for - operation, maintenance, planning development / project works and also providing services to the customers.

**1.1Background / Origin of the report:**

This report is a partial requirement of the Internship program of MBA program of – Department of Accounting & Information Systems, Faculty of Business Studies, University of Dhaka. The main purpose of internship is to get the student exposed to the job world of the business managers. Being an employee & intern, the main challenge was to translate the real life experience into theoretical concept and write a report.

The internship program and the report have following purposes:

* To get and organize detail knowledge on business processes of the organization.
* To experience the real world business activities.
* To compare the real scenario with the lessons learned in class rooms of University of Dhaka.
* To fulfill the requirement of MBA program.

This report is the result of three months long internship program conducted in Dhaka WASA and is prepared as a requirement for the completion of the MBA program of University. As a result I need to submit this report based on the **“Implementing Automation of Business Processes by Digitization of Information Systems at Dhaka WASA”**. This report also includes writing on the overview of the organization, the products and services of Dhaka WASA, and also what factors they consider while selecting automation for different purposes.

**1.2 Objective of the report:**

The objective of the report can be viewed in two forms:

* General objective
* Specific objective

General Objective: The internship report is prepared primarily to fulfill the Masters of Business Administration (M.B.A) degree requirement under the Faculty of Business Studies, University of Dhaka.

Specific Objective: More specifically, this study entails the following aspects:

* To give an overview of Dhaka WASA Limited.
* To understand and analyze the business process of Dhaka WASA.
* To identify the strategies and policies for implementing automation into all type of management process.
* To find out bottleneck of automation process with effective solutions to overcome the limitation.

As a case study try to take a deep look into the automation and already automated processes of Accounting and Billing Departments.

**1.3 Significance of the report:**

Other than pointing out the key factors for Automation of Business process to the management, it will also be useful to employees, management practitioners, automation industry and the society as a whole.

Employees can find out in which direction the business process & management is going and based on the organizational environment what should be their future preparations. Management practitioners can gain important insights regarding the areas for improvement in similar sectors. Automation industry and Technology-vendors/bidders can also benefit from the outcomes of this study by getting an indication of where to focus resources and efforts for business opportunities. Finally, the society at large will benefit from improved customer services, if the findings help improve overall atmosphere of the organization.

**1.4 Methodology of the report:**

**1.4.1 Framework of the report:**

The whole report has been arranged in nine specific parts. Part one named as Introduction, which includes the origin, objectives, significance and methodology of the report. Part two named as Organization Overview, which includes the description of the overall organization of Dhaka WASA. Part three named as Job experience which includes my job responsibility and activities in the organization as employee for past ten years. Part four points out key areas of automation. Part five discusses about. Part six mentions the digitized processes and services. Part seven includes case study of automated AIS and billing. Part eight includes recommendation and conclusion and Part nine is Appendix.

**1.4.2 Target population**

The target populations for the study are –

* Internal employees.
* Vendors of the organization.
* Consumers
* Key executives of Dhaka WASA.
* Government Regulators
* International Agencies

**1.4.3 Study Area**

The study will be conducted within the organization to study the automation process of Dhaka WASA.

**1.4.4 Data Sources**

……………………………

a. Internal Sources

b. External Sources

**1.4.4 Data Types**

A. Primary Data

B. Secondary Data

C. Tertiary Data

………………………………………………….

**1.5 Limitation of the study:**

While doing this project I had to face some limitations. These are as follows-

……………………………………………….

* COVID – 19 pandemic situation.
* Most Employees were unwilling to share data or most employee were not informed enough about digitized and automated business procedure.
* Most Vendors were unwilling to share their data or most vendors were not informed enough about digitized and automated business procedure.
* Different divisions and projects inside Dhaka WASA were focusing on different part of automation. So different sources had different information about automation process.

……………… ………………………..Will be completed in draft final report………… ……… ……….