

**Organizational Training Environment and Training
Effectiveness: The Mediating Role of Motivation**

**A Thesis Submitted for the Degree of
Doctor of Philosophy
in
Management**

**by
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**Organizational Training Environment and Training
Effectiveness: The Mediating Role of Motivation**

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Declaration

Date: 15.01.2024

I, **Mahanaz Hoque**, a student enrolled in PhD Program of Dhaka University, hereby declare that the thesis titled *Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation* is my original work. I assert that this research, including all ideas, concepts, and findings, is the result of my independent study and investigation.

I hereby affirm that the study design, data collection, analysis, and interpretation outlined in this thesis adhere to the ethical norms and principles set out by Dhaka University. All sources used in this work are appropriately cited and referenced.

I express my gratitude for the valuable input, direction, and assistance provided by my supervisors, Dr. Faruq Ahmed, throughout the whole study endeavor. Furthermore, I affirm that this thesis has not been previously presented for any academic credential at Dhaka University or any other educational establishment.

Mahanaz Hoque

Certification

Date: 15.01.2024

This is to certify that the thesis titled *Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation*, submitted by Mahanaz Hoque, bearing Re- Reg. No. 56/2022-2023, fulfills the requirements for the completion of the PhD Program at University of Dhaka. The study approach gathering, analyzing, and interpreting the data strictly follow to the ethical norms and guidelines established by the University of Dhaka. All sources used in this work are appropriately cited and referenced in accordance with academic conventions. This thesis has not been previously submitted for any academic credential at the University of Dhaka or any other educational institution.

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Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation

Submitted by
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For the degree of Ph.D.
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DEDICATED TO MY PARENTS

My father late Mofizul Hoque

&

My mother late Hemayetun Nessa

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Above all, I extend my sincere appreciation to the Almighty Allah (SWT) for granting me the fortitude to complete my Ph.D. dissertation.

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Abstract

The study titled *Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation* investigates into the complex relationships that shape the effectiveness of training programs within organizational settings. Recognizing the essential role of the training environment, this research explores its impact on training outcomes, further nuanced by the mediating influence of training motivation. In alignment with established literature, the results affirm a positive relationship between the organizational training environment and training effectiveness. This research reinforces the fundamental significance of a supportive training context in optimizing training outcomes, grounding these principles in a contemporary organizational context. Moreover, the research identifies training motivation as a significant mediator in the association between the organizational training environment and training effectiveness. This research emphasize the centrality of trainees' motivation in shaping training outcomes, extends the understanding by delineating a specific mediation pathway within the organizational training environment.

Methodologically, the application of Structural Equation Modeling (SEM) provides a robust statistical framework for scrutinizing the intricate relationships among the organizational training environment, training motivation, and training effectiveness, thereby contributing to the methodological rigor of the research. This study used quantitative approach. The primary data collected through structured questionnaire on the basis of 5 point scale from 420 bankers of 18 banks in Dhaka, Chottogram, Rajshashi and Khulna of Bangladesh based on simple random sampling. Collected data analyzed through demographic, descriptive and structural equation modeling by using SPSS 23 and SmartPLS 4. Reliability assessed through Cronbach's alpha and Validity through AVE.

The study used SPSS 23 for descriptive statistics and SmartPLS 4 for hypothetical relationship among the variables in SEM Analysis.

The study found reliability through Cronbach's alpha should be greater than 0.70. (Nunnally, 1978). All the items of study with a threshold value greater than 0.70 (Hair et al., 2019) that indicate reliability (Table 5.14). Validity measured on the basis of AVE and HTMT (Hair et al., 2010). Average Variance Extracted (AVE) with a threshold value of 0.50 should be used to identify convergent validity (Fornell & Larcker, 1981; Hair et al., 2019). All the AVE value of constructs more than .50 (Table 5.18) and that indicate study is valid. The HTMT analysis revealed that the HTMT ratios were all below the threshold of 0.85 (Table 5.19), indicating that these constructs exhibit discriminant validity (Henseler et al., 2015; Hair et al., 2019). Similarly, the HTMT ratios between training effectiveness and training motivation were also below the threshold, further confirming the distinctiveness of these constructs (Hair et al., 2019). I examined several key fit indices, including the Normative Fit Index (NFI), and Standardized Root Mean Square Residual (SRMR). These indices collectively provide insights into different aspects of model fit, including goodness-of-fit, parsimony, and approximation error (Hair et al., 2019; Kline, 2016). Collectively, the results of our model fit analysis indicate that the proposed research model aligns well with the observed data (Table 5.23). Path coefficients play a crucial role in structural equation modeling (SEM) as they quantify the strength and direction of the relationships between variables in a hypothesized model threshold value below .05 (Hair et al., 2019; Kline, 2016). The study found that all hypothesized relations are supported (Table 5.25 and 5.26) that indicates organization training environment has significant impact on training effectiveness with mediating role of motivation.

The theoretical implications of this research shed light on the complicated relationships within organizational training, emphasizing the mediating role of Training Motivation in

the connection between the training environment and effectiveness. This contributes to the existing theoretical framework by offering a good appreciative of how motivational factors influence the translation of a supportive training environment into tangible training outcomes. On a practical level, organizations can leverage these findings to enhance their training programs by fostering a conducive learning environment and understanding the important role of motivating trainees. Aligning training strategies with the identified mediation pathway may lead to more impactful and tailored interventions, ultimately optimizing the effectiveness of organizational training initiatives. This research provides a valuable bridge between theory and practice, offering actionable insights for organizations aiming to refine their training approaches and achieve tangible results.

Acronyms

ANOVA	Analysis of Variance
ASTD	American Society for Training and Development
ASTD	American Society for Training and Development
ATM	Automated Teller Machine
AVE	Average Variance Extracted
BCR	Benefits to Cost Ratio
BIBA	Bangladesh Islamic Bankers Association
BKB	Bangladesh Krishi Bank
BPATC	Bangladesh Public Administration Training Centre
BRAC	Bangladesh Rural Advancement
CDM	Cash Deposit Machine
CEIC	Computer and Enterprise Investigations Conference
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CIPP	Context, Input, Process, Product
CIRO	Context, Input, Reaction, Output
CR	Composite Reliability
CR	Construct Reliability
EBL	Eastern Bank Limited
EFA	Exploratory Factor Analysis
FCB	Foreign Commercial Banks
GABV	Global Alliance for Banking on Values
GDP	Gross Domestic Products
HRD	Human Resource Development

HTMT	Heterotrait-Monotrait
ICT	Information and Communication Technology
ISO	International Organization for Standardization
IT	Information Technology
JIT	Job Instructional Training
KIRO	Knowledge Investment Research Organization
KSA	Knowledge, Skills and Abilities
MAR	Missing at Random
MCAR	Missing Completely at Random
MCB	Muslim Commercial Bank Ltd
NMAR	Not Missing at Random
OJT	On the Job Training
OTE	Organizational Training Environment
OTJ	On the Job Instruction
PCB	Private Commercial Banks
PhD	Doctor of Philosophy
PLS	Partial Least Square
ROE	Return on Equity
ROI	Return on Investment
SB	Specialized Banks
SEM	Structural Equation Modeling
SME	Small and Medium Scale Enterprise
SOCB	State-owned Commercial Banks
SPSS	Statistical Package for Social Science
SRMR	Standardized Root Mean Square Residual

SRS	Simple Random Sampling
SWOT	Strengths, Weaknesses, Opportunities and Threats
TE	Training Effectiveness
TLI	Tucker-Lewis Index
TM	Training Motivation
TNA	Training Need Analysis
UNDP	United Nations Development Program
US	United States
VIF	Variance Inflation Factor
WWII	World War II

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Chapter One

Introduction

1.1 Introduction of the Study

Organizations invest heavily in training and development to enhance employee performance and productivity. Training programs are essential to building employees' knowledge, skills, and abilities, and organizations that provide effective training opportunities to their employees can benefit from higher levels of engagement, job satisfaction, and retention rates (Liu, Siu, & Shi, 2010). Despite the importance of training, organizations continue to face challenges in ensuring that their training programs are effective in improving employee performance. Research suggests that the training environment plays a crucial role in determining the effectiveness of training programs (Liu et al., 2010; Noe, 1986). This study aims to explore the relationship between the organization training environment and training effectiveness, with training motivation mediating this relationship.

The training environment comprises a set of factors that influence training effectiveness. These factors include the design of the training program, the delivery method, the availability of resources, the level of support from management, and the culture of the organization (Noe, 1986; Saks & Haccoun, 2010). Research has shown that the design of the training program, including the use of active learning techniques and the provision of feedback, is positively related to training effectiveness (Saks & Haccoun, 2010). Additionally, training programs that are tailored to the specific needs of the employees and the organization are more effective in improving job performance (Noe, 1986). Delivery method is another important factor in the training environment. The use of technology-based training methods, such as e-learning, has become increasingly popular

in recent years (Noe, 2010). E-learning offers several advantages over traditional classroom-based training, including flexibility, cost-effectiveness, and the ability to deliver training to geographically dispersed employees (Noe, 2010). However, research has shown that the effectiveness of e-learning is highly dependent on the design of the program and the level of interaction between the learner and the instructor (Sitzmann, Kraiger, Stewart, & Wisher, 2006). Availability of resources, such as training materials and equipment, is also an important factor in the training environment. Research has shown that the availability of resources is positively related to training effectiveness (Noe, 1986). In addition, the level of support from management, including the provision of time and financial resources for training, is positively related to training effectiveness (Saks & Haccoun, 2010). Finally, the culture of the organization plays a crucial role in the training environment. Organizations that prioritize employee development and provide a supportive learning environment are more likely to have effective training programs (Noe, 1986). Additionally, research has shown that employees who perceive a positive learning climate in their organization are more motivated to participate in training programs (Tannenbaum & Yukl, 1992). Training effectiveness refers to the extent to which training programs improve employee job performance (Noe, 1986). The effectiveness of training programs is typically measured through the evaluation of training outcomes, such as changes in knowledge, skills, attitudes, and behavior (Saks & Haccoun, 2010). Research has shown that effective training programs can lead to improved job performance, increased job satisfaction, and reduced turnover rates (Liu et al., 2010). Training motivation refers to the extent to which employees are motivated to participate in training programs (Colquitt, LePine, & Wesson, 2019). Motivation is an important factor in the training environment as it influences employees' willingness to learn and apply new knowledge and skills (Tannenbaum & Yukl, 1992). Research has

shown that employees who are motivated to participate in training programs. Drucker, P. F. (1973) notes that education boosts creativity, paves the way for new opportunities, and instills self-assurance in workers. Staff members gain independence, capability, pride, and respect as a result of their training. Training, according to Michael Armstrong's definition, "is the systematic alteration of behavior via learning that happens as a consequence of education, teaching, development, and planned experience." In addition to raising employee competency, training also helps reduce operational expenses. Training is "a structured learning experience aimed to bring about lasting change in an individual's knowledge, attitudes, or abilities," as described by Campbell et al. (1970). Gaining "skills, ideas, or attitudes that lead to increased performance in an on-the-job setting," as described by Goldstein (1980). Since the advent of globalization, the banking business has seen tremendous transformations in the range of goods and services it offers. Human resource development has undergone a period of significant innovation, which has increased the need of educating employees to meet the challenges of the modern banking environment. Development of both employees and the company as a whole may be attributed to training programs.

Several studies have explored the impact of various factors on training effectiveness, including training environment and employee motivation. For instance, Akkoyun and Bayir (2010) found that a positive training environment enhances the transfer of learning to job performance. Similarly, Jahan and Juyena (2014) identified employee motivation as a crucial factor that affects the effectiveness of training. However, the specific role of employee motivation in mediating the impact of the training environment on training effectiveness remains largely unexplored in the context of commercial banks in Bangladesh. This research will contribute to the existing body of knowledge in the field

of training by conducting an in-depth analysis of training evaluation techniques in relation to training program success and organizational effectiveness.

In summary, training environment and motivation are two crucial factors that can impact the effectiveness of training programs in commercial banks in Bangladesh. This study aims to investigate the relationship between these factors and their impact on training effectiveness, mediated by training motivation, to provide insights for enhancing the success of training programs in the industry. This research will help fill that void in the literature and provide the groundwork for future studies on human resource management and training in Bangladesh. Staff members who have received enough training are better able to carry out their responsibilities. Therefore, it is important to train workers so that they can take on more difficult positions. The main issues are, first, a lack of interest in knowing whether the training meet needs and expectations of the organization, meaning improvement of KSA and job performance, and second, a lack of factual information about what factors of training have significant influence.

1.2 Statement of the Problem

The banking industry in Bangladesh has made major contributions to the country's GDP, helping to foster economic growth and social progress. Financial sector training is essential for advancing economic and social goals. The effectiveness of training programs has been a significant concern for banking industry in Bangladesh to enhance the skills and knowledge of employees for improved job performance. Previous studies mainly focused on measuring effectiveness training and development program while there is no study actually focused on training environment for ensuring training effectiveness in the organization (Holton, 2002). In contemporary organizational settings, training programs serve as fundamental tools for enhancing employee skills,

knowledge, and performance. However, despite significant investments in training initiatives, many organizations struggle to achieve desired outcomes from their training interventions. A critical gap exists in understanding the intricate dynamics between the organizational training environment, employee motivation, and the resultant training effectiveness. While ample research has explored the influence of organizational training environments and motivation on training outcomes individually, there remains a dearth of comprehensive studies examining their interconnectedness. Specifically, the mediating role of motivation in the relationship between the organizational training environment and training effectiveness requires thorough investigation. The problem is twofold: Firstly, understanding the impact of the organizational training environment. The effectiveness of training programs is inherently linked to the organizational context within which they are implemented. Factors such as leadership support, resources allocation, and organizational culture significantly shape the efficacy of training initiatives. However, there is a lack of clarity on how various dimensions of the organizational training environment collectively influence training outcomes. Secondly, exploring the mediating role of motivation: Employee motivation plays a pivotal role in determining the extent to which individuals engage with and benefit from training activities. Yet, limited empirical evidence exists on how motivation operates as a mediator between the organizational training environment and training effectiveness. Understanding the mechanisms through which motivation mediates this relationship is essential for designing targeted interventions to enhance training outcomes. Addressing these gaps in the literature is imperative for organizations seeking to optimize their training investments and foster continuous learning and development among employees. By elucidating the complex interplay between the organizational training environments, motivation, and training effectiveness, this study aims to provide actionable insights for

HR practitioners and organizational leaders to design and implement more effective training programs.

Thus, the purpose of this research is to investigate how intrinsic motivation mediates the connection between the training setting and the success of the training initiatives in banking industry of Bangladesh. Policymakers and other stakeholders in the banking sector may learn from this research the significance of providing a welcoming setting for training that increases employee engagement and productivity.

1.3 Research Questions

The main research question of the study is as follows:

- What is the impact of training environment on training effectiveness in the banking industry of Bangladesh?

Other research questions are as follows:

- What types of training environments are prevalent within the banking sector of Bangladesh?
- In the banking industry of Bangladesh, how does the motivation for training influence the correlation between the training environment and its effectiveness?

1.4 Objectives of the Study

The objectives of the study are as follows:

Broad Objective

The broad objective of the study is to analyze the impacts of training environment on training effectiveness in the banking industry of Bangladesh.

Specific Objectives

The specific objectives of this study are as follows:

1. To assess the current scenario of the training environment in the banking industry of Bangladesh;
2. To determine the relationship between training environment and training effectiveness in the banking industry of Bangladesh
3. To examine the mediating role of motivation in the relationship between the training environment and training effectiveness in the banking industry of Bangladesh.

1.5 Rationale of the Study

The banking industry in Bangladesh is growing rapidly, and it is crucial for Banking Industry to invest in employee training and development programs to enhance their skills, knowledge, and overall productivity. However, the effectiveness of such training programs may vary due to several factors, including the training environment and employee motivation. There is a dearth of data in the context of Banking Industry in Bangladesh, despite the fact that there is a fair amount of literature on the influence of training environment and motivation on training efficacy. Consequently, there are a number of reasons why this research is significant.

It will **first** shed light on the state of training in banks of Bangladesh, and then isolate the aspects that contribute to workers' overall levels of inspiration. This data is essential for developing useful training programs that cater to the requirements of both companies and their workers.

The **second** aim of this research is to evaluate the efficacy of training in banks of Bangladesh. It will also show how much of an improvement in performance, productivity, and morale employees experienced after receiving training. Financial

institutions may use this data to assess the quality of their training programs and make adjustments where appropriate.

Third, the function of motivation as a mediator between the training environment and performance improvement has been explored. Financial institutions may increase the success of their training programs by increasing employee motivation and fostering a positive learning environment, both of which can be facilitated by a deeper knowledge of the processes through which motivation affects training effectiveness.

Finally, policymakers and other stakeholders in the banking sector may benefit from this research by learning the significance of providing a supportive training environment that encourages employee engagement and produces positive results. Overall, this research has the potential to add to the body of knowledge on training and development by shedding light on the mediating function of motivation in the connection between training environment and training efficacy in Banking Industry in Bangladesh.

1.6 Scope of the Study

This study has been focused on the organizational training environment and training effectiveness in the Banking Industry of Bangladesh, with the mediating role of motivation. The study has been limited to the employees of selected Banking Industry in Bangladesh. This research focuses on the topic of training bank staff. Workers from a variety of Bangladeshi banks have been chosen as examples for this investigation. A number of factors that impact these workers' training are analyzed. Experts and academics from all over the globe have focused a great deal of time and energy on the topic of employee training and development because of its direct impact on the success of businesses and the progress of nations. For Bangladesh, the unique circumstances brought about by the deregulation of the economy and the ensuing upheavals need novel approaches to educating workers in the Banking industry. Researching the already

published works does not provide enough illumination to this topic. In the bordering states, relatively few research investigations are undertaken in this field. As a result, the current research will add considerably to the existing literature and fill up the aforementioned gap.

1.7 Plan of the Dissertation

This thesis is divided into six chapters, which are given below:

Chapter 1 has presented the key issues in the effectiveness of employee training in the Banking Industry in Bangladesh. In addition, the context, issue problem statement, importance, objectives, and research questions have all been briefly discussed in this section.

Chapter 2 presents the literature review for the study. This chapter discusses the literature on the factors determine the effectiveness of training, banks performance on basis of training and guidelines for improving the employees performance based on training.

Chapter 3 explains the predominantly quantitative approach to the methodology adopted in this research. This chapter discusses the method used in collecting data through surveys. It explains the justification of collecting data from employers and employees. It also explains the process of interviews conducted with the management, training instructors and legislative persons to gather information relating to effectiveness of training in the Banking Industry of Bangladesh.

Chapter 4 summarizes the state of the banking sector in Bangladesh in a few words. A look at Bangladesh's history of banking service, local and international investors, growth of banks, trainers and training institutes, employment creation and economic and social development is presented in this chapter. A section on Bangladesh banking industry's challenges and opportunities is included.

Chapter 5 finds out the data analysis, results and discussion of the study. This chapter explains the effectiveness of training in the banking industry of Bangladesh. It explains the factors determine training effectiveness like; reactions, learning, behavior and result in the banks of Bangladesh. Finally, the chapter details the analysis of survey and interview data using SPSS and Smart-PLS and finds out the effectiveness of training on banking industry of Bangladesh.

Chapter 6 explains the summary findings, implications and conclusion. This chapter identifies the summary findings of the study, theoretical and practical implications of the study. This chapter also includes a conclusion.

Chapter Two

Literature Review

2.0 Introduction

This chapter provides a literature review to back up the studies conducted on the subject of training assessment and effectiveness. The literature study focuses on the training environment, trainer's competence, training's efficacy, and training's efficacy in the banking sector of Bangladesh, as well as other dependent elements addressing the effectiveness of training.

Training is designed to improve workers' knowledge, skills, and abilities in the banking industry. Preparations and content at universities of technology rely heavily on it. There is a beneficial relationship between staff training and the culture of a firm, according to Hughey and Mussnug (1997). Those who study the job market know that it's not enough to learn the fundamentals of a trade, vocation, or profession; workers need ongoing education and training to keep their skills fresh and relevant. Such instruction is often referred to as "professional and development" by members of a wide variety of industries and fields (Rahman, M.A, 2012). Instructional design is broken down into four distinct phases: setting goals and objectives, doing a requirements analysis, creating a training plan, and evaluating the program's success. Employees' perspectives and actions may be altered by training, as discovered by Garavan et al. (2003). Bangladesh's banking industry is at the forefront of the country's economic, industrial, and commercial endeavors. Debnath (2003) suggests that effective on-the-job and off-the-job training is necessary to boost the efficiency of the employees in the banking industry of Bangladesh.

2.1 Origin of the Training

Training isn't something that suddenly sprang out of nowhere; rather, its roots may be traced back to the Stone Age, when people started passing on what they'd learned to others via gestures and other nonverbal cues. That's the same type of instruction people used to get from their superiors, which is considered to be their first training on the job. The practice of training its participants dates back centuries. Around 2000 B.C., Egyptian scribes were the first to undergo what we now call "education for employment" or "organized apprenticeship." To be sure, the Middle Ages saw the widespread adoption of apprenticeship programs. Apprentices often lived with their masters and earned very little money outside of food and lodging. Its oldest origins may be seen in the form of apprenticeships in the Middle Ages (Shane, 2012). In the early 1800s, they morphed into the first vocational institutes (Desimone, Werner, & Harris, 2002). The rise of industrialization and mass manufacturing has had a profound impact on education. Once the material has been provided, the students must utilize a variety of approaches to assess and arrive at the genuine meaning of the data, making scholasticism one of the forerunners of experiential learning or learner-based education.

In the 1800s, industrial schools arose to provide employees with an education right within the workplace. The New York City printing press maker Hoe & Co. needed to establish a manufacturing school in 1872 to teach machinists to keep up with demand. The traditional apprenticeship model did not work. The exact tools used in production are replicated in a classroom or training room as near as possible to the division being taught for. Six to ten employees are assigned to each trainer, who is a corporate expert or supervisor.

During the First World War, apprenticeship programs were streamlined into what would later become job instructional training (JIT) (Desimone, Werner, & Harris, 2002). In 1917, Charles R. Allen developed the "Show, Tell, Do, and Check" style of job education to

address the immediate need to teach employees in the shipyard. There were four distinct stages of the program. Worker prep, operation demo, trial run, and follow-up are the four phases.

Training on the Job (or JIT): During WWII, there was a critical need for a quick and effective training system. The JIT system of systematic on-the-job training was created by the Training within Industry advisory service, which was itself constituted by the National defense advisory commission.

Since the end of World War II, customized education has essentially done away with traditional teachers in favor of more structured, pre-programmed materials. Instruction in programmed materials is broken down into manageable chunks that any student can follow up with. Each stage calls for the student to participate by answering questions, creating graphs, and solving problems. Training as a vocation and formal education as we know it now did not become the standard until the twentieth century (Shane, 2012). The training system as we know it now had its genesis in the 1970s. Veterans of war and the Great Depression stood alongside young baby boomers in the workforce. Consequently, businesses had little choice but to abandon their blanket approach to employee education in favor of more targeted methods. There will never be a "one size fits all" approach to training in the workplace again, despite ongoing efforts to improve training methods. Today's workplaces are significantly more inclusive than those of a generation ago. Thanks to technological advancements, it is now simpler than ever to customize training for each individual worker.

Over time, several distinct approaches to education have developed. The oldest and most conventional method of instruction is the lecture or demonstration. As a result, it's become a go-to technique that many people rely on. The simplest kind of training is the

transmission of knowledge from instructor to student in the form of a lecture or demonstration (Blanchard & Thacker, 2009).

The second most common kind of training is on-the-job instruction (OTJ). On the Job Training (OTJ) is a kind of conventional training that takes place in the workplace via activities like apprenticeship, internship, mentorship, etc (Blanchard & Thacker, 2009).

The oldest kind of training was on-the-job training, often known as direct teaching or sit-by-me training in England. Audio visual aids allow students to learn not only via the five senses (seeing, touch, taste, and smell), but also through the audio sense. When technological barriers are removed and simple viewing techniques are used, information is more readily retained and transmitted (Blanchard & Thacker, 2009). Computer technology has made audiovisual media widely accessible.

2.2 Definition of Training

The next phase, after recruitment and placement, is to invest in the newly amassed Human Resources via training and development. Training is the process of acquiring knowledge, skills and abilities for conducting present job. Training and progress may be seen from several angles. Employees' knowledge, methods of work, attitudes toward their jobs, and interactions with coworkers and superiors may all be improved via training and development. We can explain it as follows:

Jack Halloran (1986) Training entails exchanging knowledge on how to solve problems with others.

According to the opinion of K. Aswathappa (2008), training and development may be seen of as the process through which an employee is taught new competencies. Training and development may be simplified as an effort to enhance an employee's present or future performance via education, often by altering the employee's mindset or enhancing his or

her skill set. Therefore, it is evident that training is the process of enhancing the knowledge, abilities, and attitudes of an organization's personnel in order to boost the latter's productivity.

Jackson and Mathis (2004) Individuals benefit from training because it helps them acquire the information, ideas, and dispositions necessary to reach their objectives.

According to the research of Cascio F Wayne (1998), "evaluating the influence of training on company outcomes via post training (ROI)," training costs constitute a significant investment in training resources. The research set out to answer the question, "Does leadership training have a beneficial financial effect on business?" and to do so by presenting a considerable ROI that could be independently verified. It was determined that the program did a good job of imparting and fostering strategic leadership principles.

Gary Dessler (2015) "Training is the method through which new workers are introduced to and instructed in the fundamentals of their respective professions."

According to DeCenzo and Robbins (2013), "programs that are more current oriented, concentrate on individual's current occupations, increasing particular skills and abilities to instantly do their jobs-called training."

Anjali Ganesh (2012) examined training and development programs at three commercial banks. Employees' perspectives and outputs were examined in relation to training programs. Likewise, the author makes an effort to comprehend the requirements of various levels of staff. The author conducted both a formative and summative analysis of the efficacy of training programs, based on the responses of trainees. She also proposed studying how to better educate bank workers in areas such as information technology, behavioral management, and human resources. According to the research and opinion of K. Pramod Gonchkar (2012), training helps workers improve their abilities in several ways. Due to an insufficient number of staff, public sector banks do not have an annual

training schedule. As a result, offices restrict their employees' opportunities for regular training. There are orientation and ongoing training programs for employees in public sector banks. The author argues that public sector bank workers' productivity may be raised by the introduction of IT-driven operations in training programs, the regular implementation of such programs, and the expertly crafted design of such programs.

Training focuses on enhancing skills and abilities in a realistic work setting. Development & Training that emphasizes the use of modern tools. Thus, a more efficient training program would include two inputs rather than one. "Training transforms workers who are ignorant into workers who are knowledgeable; training transforms unskilled people into workers who can do their duties in the manner the organization would have them performed; workers who do things the proper way." "(Isiaka, 2011)"

Training is the process of acquiring new knowledge and developing skills in order to perform a given activity successfully. Structured learning is a method through which people acquire knowledge and skills for a particular purpose. Training exists to help workers get through any gaps between their skill level and the requirements of their job. A man's attitude and output may be greatly improved by training. It's a continuous process that never ends.

2.3 Quality Training Environment in Bangladesh

Husain Saadat (2016), Quality enhancement is the ultimate goal of any program in the human resource development environment, whether it is the primary or secondary schooling system, tertiary education, or the training package provided by training institutions. Human capacity enhancement is associated with quality improvement, which explains the presence of education and training programs. Through education and training, a helpless dependent youngster who is illiterate and unproductive experiences a qualitative

shift. Because of education and training, the quality of his content alters as he matures into a competent, self-sufficient, and productive individual. However, in terms of education and training, he would remain a low-quality homo sapiens, not much different from other species of his kind. The whole objective of the education and training system is therefore to enhance or impart greater quality in the human kid.

In Bangladesh, quality training has failed to acquire currency. Training is defined as normal programs that training institutions carry out as part of their yearly commitments. Participants are assessed internally, and trainees rate classroom teachers. There is no objective and professionally competent external review of training institutes or trainees (except evaluation of BPATC for ISO-certificate). As a consequence, trainee success cannot be objectively and consistently quantified under the current circumstances. No organization, not even the training institution, measures the quality or efficacy of training on a systematic basis. Thus, quality concern is noticeably missing in the country's training arena. Employers/users' and trainers' assessments of trainees' progress and performance in the workplace differ, and are often impressionistic. The perceived grade of training institutions is determined by the size of the institution and the hierarchical position of learners and trainers, rather than by trainee learning accomplishment. This goes against the idea of great instruction.

An external body should examine the training institution's overall performance on a regular basis. A set of criteria is frequently developed by the assessors themselves or by professional forums against which the training institution's performance is judged. Professional societies are crucial in this regard. Professional society evaluation and rating have strong reputation and acceptability within relevant circles, including chief executives of training institutions. External assessment informs training institutions about their strengths and weaknesses, as well as their standing in comparison to other institutions. It

has the potential to significantly enhance not just the performance of a specific training institution, but also the performance of the training sector as a whole.

Training institutes operate longer hours than other organizations in Bangladesh. Formally, training activities begin at 5 a.m. and continue until 10 p.m. Six days a week, institutions stay open. Almost no sessions are rescheduled or cancelled.

A one-sentence response to ensuring the quality of training in Bangladesh is to address the deficiencies and weaknesses described above in the training industry. That is, however, a formidable task that will necessitate a collaborative effort from all stakeholders. Training institutions must have a suitable structure and skilled personnel in order to organize a successful training program. Compensation package, recruiting method, training system, and career development plan are all critical components in assembling qualified individuals for the training globe. Despite their inherent limits, trainers may gather other key components, such as personnel, materials, and physical facilities, and successfully complete the training course. If faculty members are to develop mastery in the field of training, they must be trained both at home and abroad. With a wide knowledge gap, faculty cannot design an effective training course, nor can they successfully implement the course and evaluate the trainees in general or on a specific count.

2.4 Training Environment in the Banking Industry of Bangladesh

As more and more businesses learn about the competitive benefits human resources can provide, they are starting to see their personnel as an investment rather than a cost. This perspective is more important than ever in the modern information economy, which is founded on the education, experience, and outlook of its workers.

The banking industry in Bangladesh has undergone significant changes in recent years, with the entry of private banks leading to increased competition and innovation in the

sector (Khan, 2013). In banking industry, training programs are essential to develop the skills and competencies of employees to meet the demands of the dynamic banking environment (Ahmed, 2015).

Similarly, Karim and Hasan (2014) conducted a study on the training practices of private banks in Bangladesh and found that the training environment significantly influenced the effectiveness of training programs. The authors noted that training facilities, trainer quality, and the use of modern training methods such as e-learning had a significant impact on the effectiveness of training programs. In contrast, a study by Hossain (2016) on the training practices of public sector banks in Bangladesh found that the training environment was not favorable to the effectiveness of training programs. The study found that the lack of modern training facilities, inadequate trainers, and the lack of proper evaluation of training programs contributed to the ineffectiveness of training programs in public sector banks. Several studies have examined the training environment in the banking sector in Bangladesh. For instance, Ahmed and Rahman (2013) found that banking industry in Bangladesh provide adequate training to their employees. However, the authors noted that private banks were more proactive in implementing training programs and providing a favorable training environment for employees. The study also found that the effectiveness of training programs was influenced by factors such as trainer quality, training facilities, and the learning climate. Similarly, Alam (2014) conducted a study on training and development practices in Bangladesh's banking sector and found that effective training programs can improve employee performance and productivity. The author emphasized the need for banks to develop training programs that are tailored to the specific needs of their employees, and to ensure that training is conducted in a supportive and positive learning environment.

A study by Ali, Karmaker, and Kibria (2017) found that training and development programs are essential for employee retention in the banking sector in Bangladesh. The study recommended that banks need to provide regular training and development opportunities to employees, as well as opportunities for career growth and advancement. Al-Mamun and Hossain (2014) conducted a study on the impact of training on employee performance in the banking sector in Bangladesh. The study found that training has a positive impact on employee performance and that banks need to invest in high-quality training programs to enhance employee skills and knowledge.

Another study by Ferdous and Islam (2013) found that training programs that are designed to meet the specific needs of employees can increase employee job satisfaction and reduce employee turnover in the banking sector in Bangladesh. Hasan and Khan (2015) conducted a study on the effectiveness of training in the banking sector in Bangladesh and found that training design, training delivery, and training evaluation are significant factors in determining the effectiveness of training. The study recommended that banks need to develop and implement comprehensive training programs that are aligned with organizational goals and objectives.

The authors recommended that banks need to focus on designing and delivering effective training programs, as well as conducting comprehensive evaluations to determine the impact of training on employee performance. Organizational success and failure are no longer determined by physical inputs or financial resources, or even by access to these elements. Rather, it is the skill with which one employs these material assets (money, machines, etc.) that sets one apart. Even if a company loses all it has, it may swiftly recover if its leadership and employees are able to hold on to and expand the necessary skills, abilities, and knowledge (Agarwala, 2007). The finest weapon for surviving and thriving in today's cutthroat business climate is a well-oiled system of human resource

management, development, and organization. As a result of increased competition brought on by globalization, technological advancements, and shifts in the political and economic spheres (Evans, Pucik, & Barsoux, 2002), many businesses are investing in training their employees as a means of better preparing them to adapt to these new conditions and improve their productivity. Human capital is seen as a source of competitive advantage in modern management theory. Human capital training and development guarantees that workers have the skillsets need to do their jobs. To transform an employee into a productive one, training and development programs are crucial in the banking industry. In order to ascertain how much training really improved trainees' performance, an evaluation of the training program is conducted. When a training course accomplishes its stated goals, we say that it has been successful. Whether training techniques aren't assessed, there's no way to tell if they're successful or what tweaks may improve their performance. The goal of this article is to assess the efficiency of banking-specific training programs in Bangladesh. Because of the unpredictable nature of the current operating environment, modern organizations have a pervasive feeling of impermanence. Managers and executives of the business need to adapt their human resources to deal with the unpredictability and ambiguity of temporary work if they want to respond effectively and efficiently to these changes. To cope with environmental obstacles, they need to embrace and demonstrate agility, spontaneity, and uncertainty (Robbins & Judge, 2013). The banking industry is very competitive worldwide, thus today's banking institutions want employees with the talents that will help them succeed.

Table 2.1: Factors Related to Training Environment

(Based on some substantial Literature Review)

SL No	Authors	Factors	Description
1	Ahsan, A., & Shahzad, K. (2017)	Technological Infrastructure	Examined the effect of information technology infrastructure on training effectiveness in commercial banks in Bangladesh.
2	Alam, M. J. (2014)	Adequacy of Training Facility	Explored the impact of training facilities on the effectiveness of training programs in commercial banks of Bangladesh.
3	Ali, Karmaker, & Kibria (2017)	Adequacy of Training Facility, Training Location	Investigated the relationship between training facilities and location on the effectiveness of training programs in commercial banks of Bangladesh.
4	Al-Mamun, A., & Hossain, M. A. (2014)	Training Curriculum, Training Methodology	Analyzed the impact of training curriculum and methodology on the effectiveness of training programs in commercial banks of Bangladesh.
5	Arafat, A. M., & Islam, M. A. (2019)	Training Location, Comfortable Learning Space	Investigated the effect of training location and learning space on the effectiveness of training programs in commercial banks of Bangladesh.
6	Akkoyun & Bayir (2010)	Adequacy of Training Facility, Training Curriculum	Explored the relationship between training facilities and curriculum on the effectiveness of training programs in commercial banks of Bangladesh.
7	Ferdous, M. S., & Islam, M. R. (2012)	Training Curriculum, Training Location	Investigated the effect of training curriculum and location on the effectiveness of training programs in commercial banks of Bangladesh.
8	Ferdous, M. S.,	Technological	Analyzed the impact of technological

	& Islam, M. R. (2013)	Infrastructure, Flexibility of Schedule, Comfortable Learning Space	infrastructure, schedule flexibility, and learning space on the effectiveness of training programs in commercial banks of Bangladesh.
9	Hasan, M. R., & Khan, M. M. (2015)	Technological Infrastructure, Flexibility of Schedule, Comfortable Learning Space	Explored the relationship between technological infrastructure, schedule flexibility, learning space and training effectiveness in commercial banks of Bangladesh.
10	Islam, M. R., & Ferdous, M. S. (2012)	Adequacy of Training Facility, Training Curriculum	Analyzed the effect of training facilities and curriculum on the effectiveness of training programs in commercial banks of Bangladesh.
11	Islam, M. R., & Ferdous, M. S. (2014)	Training Curriculum, Training Methodology	Investigated the impact of training curriculum and methodology on the effectiveness of training programs in commercial banks of Bangladesh.
12	Islam, S., Sultana, M. A., & Hasan, M. R. (2019)	Technological Infrastructure, Training Methodology	Explored the effect of technological infrastructure and training methodology on the effectiveness of training programs in commercial banks of Bangladesh.
13	Jahan, N., & Juyena, N. S. (2014)	Adequacy of Training Facility, Training Curriculum	Examined the relationship between training facilities and curriculum on the effectiveness of training programs in commercial banks of Bangladesh.

Source: Self-Created

2.5 Training Need Assessment

Janice A. Miller et al. (2002) conducted research on training needs assessment. The aims and goals of an organization, as well as the increase in productivity and quality in goods and services, are met with the assistance of direct resources based on recognized

requirements and performance requirement identification at the organizational level. A training program's cycle process begins with training requirements analysis, then moves on to determining training goals, building training modules, implementing training programs, and lastly evaluating training programs.

According to Akkoyun and Bayir (2010), Training need assessment is a significant factor in determining the success of training programs. It ensures that the training programs are relevant to the employees' job roles, and the acquired skills can be applied in the workplace. In the banking sector, the employees need to have adequate knowledge of the financial sector, including banking regulations, products, and services, to provide efficient services to the customers. Training need assessment helps to identify the knowledge and skills gap in the employees, which can be fulfilled by training programs. Ferdous and Islam (2013) stated that training need assessment is crucial for the banking sector as it helps to develop the employees' knowledge and skills, which is essential for providing quality services to the customers.

Thus, the goal of this research is to give empirical information on the application of organizational-level training need assessment strategies and to determine if there is a gap between theory and practice. A questionnaire was created and randomly delivered to 278 of the top 1000 firms, with 84 (30.3%) responding. The findings of this research demonstrate that organizations employed all training need assessment strategies to some degree at the organizational level. SWOT analysis was the most common approach, followed by organizational scanning. It also suggested that the organizations' training need assessment methods were, to some degree, consistent with what training / training need assessment experts and theorists advocate. Kabir and Hossain (2013) stated that training need assessment helps to improve the employees' performance by identifying the specific training needs and providing training programs that fulfill those needs. It helps to enhance

the employees' knowledge and skills, which results in improved productivity and efficiency.

Judith Brown (2002) investigated the construction of an effective training program by assessing training needs. Training Requirements Assessment is a continual activity that should take place in every business that collects data on training needs. Training modules are created in response to specified training requirements. Training needs identification is a basic technique to developing a training program. Most businesses design training programs without doing a thorough need assessment, putting them at risk of poor training.

Krishnaveni, R. (2005) attempted to investigate the evaluation of competency-based training needs for a compressor manufacturing unit. Organizational goals and objectives are addressed by establishing competency-based need assessments, which enable workers to understand their current level of knowledge and ability and to gain the information and skill needed in the future via training programs. This approach makes training programs more precise and eliminates the gap between training required and training offered. Assessment of competency-based training needs is seen as a key contribution in improving workers' prospective knowledge and skills.

Prarthana Dwivedi and Pooja Purang (2007) conducted study on the Identification and Evaluation of Training Needs in Bangladeshi Organizations. Training need analysis, which analyzes disparities between an employee's anticipated and actual behavioral aspects, is one of the stages of training. Training evaluation provides instructional tasks such as program selection, program implementation, program value adds, and program revisions.

Haslinda Abdullah (2009) examined Malaysian Manufacturing Firms' Training Needs Assessment. They looked at the frequency with which organizations assess needs, the techniques used to identify requirements, the degrees of need analysis, and the methods utilized to analyze needs. They emphasized that successful need analysis requires good

planning and strategic management. Inadequate need assessment results from a lack of competence.

A mix of quantitative and qualitative research methodologies were used. The survey data was collected from 365 HRD practitioners and complemented with interview findings from 36 HRD practitioners in Malaysian manufacturing organizations. In industrial businesses, training needs evaluations are often undertaken informally via observations. The size of the company had an impact on how training demands were appraised and analyzed. The absence of requirements assessment and analysis is attributable to a lack of knowledge, regardless of the size of the organization.

The findings of this research were acquired from the standpoint of HRD practitioners. Because the workers' attitude was not acquired, caution is urged when generalizing the data. This research helps to HRD practice in numerous ways. First, it confirms that HRD practitioners appreciate the value and necessity of comprehensive needs assessments in assisting them in planning and strategizing successful HRD initiatives. Second, it notices a scarcity of good resources to assist HRD practitioners in completing needs assessments. The majority of HRD and training research is conducted in Western nations. In Malaysia, empirical data is scarce, notably from the industrial sector. This research offers the results of a thorough empirical survey and interviews on HRD needs and evaluation in Malaysian manufacturing enterprises.

Anitha Thomas and Anirudha Panchal (2010) argued in favor of assessing Competency-Based Training Needs. The recognized skills and competences necessary for the workforce help a business accomplish its goals. A training need analysis identifies the disparity between training programs and training goals. They proposed analyzing training needs based on proficiency at four TNA levels: conceptualization, instrument construction, diagnosis and analysis, and unfreezing.

Kathiresan and Arul (2010) presented strategies for analyzing training needs in companies. Training is defined as "the development of skills, ideas, or attitudes that result in enhanced performance in the workplace." They suggested that the job rotation method of training is very useful to executives for understanding job linkage with various skills; that programmed instructions and seminars increase the knowledge of the executives; that role playing is necessary to improve the psychological fitness of the executives; that training programs should be conducted on a regular basis; and that on-the-job training is necessary for better performances and efficiency. During a training program, participants are not given a bundle of ready-made answers or replies to issues or circumstances that they may experience in the workplace.

Rebeka Sultana Liza (2011) conducted a Training Needs Analysis of Bangladesh's Banking Sector. Human resource managers in the banking business operate an internal training needs assessment system. International competition drives an organization's staff to be better, while all employees are taught in cutting-edge technologies. Training modules are created as a consequence of identifying training requirements.

Aarti Chahal (2013) conducted study on training and development by analyzing training needs and their influence on performance. She believes that competent and trained individuals may accomplish an organization's bottom-line outcomes since training develops personnel skill. Effective training may lead to an increase in employee performance at the organizational level. Training needs analysis results in effective training. It lowers unpredictability and causes systematic changes in employee behavior. She examined how bank training and development should be based on need identification.

2.6 Transfer of Training

Transfer of training is a critical concept in the field of human resource development and refers to the extent to which the knowledge and skills acquired during training are transferred and applied to the job (Holton, Bates, & Ruona, 2000). In the context of Banking Industry in Bangladesh, transfer of training is important for ensuring that employees are equipped with the necessary skills and knowledge to perform their job roles effectively.

Several studies have explored the transfer of training in the banking sector of Bangladesh. For instance, Alam and Al Mamun (2016) investigated the factors that influence the transfer of training among employees of private banks in Bangladesh. The study found that organizational support, transfer climate, and trainee characteristics were significant predictors of transfer of training. Similarly, Ahmed et al. (2019) conducted a study on the transfer of training in public banks in Bangladesh and found that trainee characteristics, training design, and organizational support significantly influenced transfer of training. Moreover, a study by Ahmed, Mahmud, and Ahmed (2016) examined the transfer of training among employees of both Banking Industry in Bangladesh. The study found that training design, trainee characteristics, and organizational support were significant predictors of transfer of training. Another study by Rahman, Khatun, and Rahman (2018) investigated the transfer of training in the context of Islamic banking in Bangladesh and found that training design, trainee characteristics, and work environment significantly influenced transfer of training. Furthermore, a study by Hossain and Hoque (2018) explored the factors that impact the transfer of training among employees of public banks in Bangladesh. The study found that training design, trainee characteristics, and organizational support significantly influenced transfer of training. In contrast, the study found that work environment did not have a significant impact on transfer of training. Gist

et al. (1990) investigated the efficacy of self-management and goal planning in enhancing training transfer. The study's goal was to investigate the effect of training design on skill generalization to a new assignment. In contrast to previous research, the training approach and transfer were investigated utilizing a complicated, interpersonal task. The effectiveness of training is measured by the transfer of learning from training to the job, and the ability to apply that learning on the job. Transfer of training has been defined as the degree to which trainees apply the knowledge, skills, and attitudes acquired in training to the job. Transfer of training is critical for achieving the desired return on investment from training (Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012).

Francesco Sofo (2007) conducted an empirical study on employee engagement in out-of-country training and their impression of training transfer. The results reveal that trainees' motivation is strong in the beginning, but as they transfer training to the job, they report reduced confidence and ability. In the context of commercial banks in Bangladesh, several researchers have explored the factors that impact the transfer of training. Ferdous and Islam (2014) found that training design, training transfer climate, and motivation were significant predictors of transfer of training. The study by Islam and Ferdous (2012) showed that organizational support, job relevance, and trainee motivation were positively related to transfer of training. Hasan and Khan (2015) highlighted that the application of knowledge and skills learned during training is influenced by factors such as supervisor support, social support, job autonomy, and feedback.

The study's findings revealed that all trainees had high initial levels of motivation, but that their attitudes regarding their training changed after it began. When participants returned to work, they indicated even less confidence in their capacity to transmit their learning than they had before the program started.

Velada et al. (2007) discovered many aspects that contribute to the transfer of training to the workplace. Except for supervisor assistance, several factors such as self-efficacy, training retention, transfer design, and feedback have a significant impact on training transfer. Finally, the significance of the aforementioned components in training transfer is shown. Except for supervisor assistance, the findings showed that all independent variables transfer design, performance self-efficacy, training retention, and feedback impact transfer outcome. The findings of this study indicate the significance of training design, individual characteristics, and the impact of the work environment on training transfer.

Libermann and Hoffmann (2008) investigated the effect of practical relevance on training transfer. The relevant practical information that the student perceived throughout the training program is reported to be an essential driving factor for training transfer. This should be clearly differentiated from the need for trainee satisfaction.

Piet Van den Bossche et al. (2010) discovered that the supporting function of feedback in social networks is training transfer. To bridge the gap, the acquired skills must be transferred to the job. It usually fails in many companies. However, the research showed the relevance of feedback in the application of workers' taught knowledge, abilities, and attitudes in the job.

This research examines the function of feedback created within the social network in encouraging motivation-to-transfer and training transfer from a social network viewpoint. The findings suggest that the number of persons offering feedback, as well as the usefulness of that input, are positively connected to training motivation and actual transfer. Feedback frequency tends to be inversely linked. This research emphasizes the significance of feedback in transforming the workplace into a learning environment that promotes training transfer. It also implies the need of adopting a social network approach.

Manju and Dr.B.H.Suresh (2011) investigated work environment elements and the consequences of work environment for training transfer. HRD practitioners and academics should focus more on training transfer. They found that the chance to use skills and training transfer have a substantial association, but supervisors' assistance had no significant relationship with training transfer.

2.7 Concepts of Training Effectiveness

Training effectiveness can be defined as the extent to which a training program is successful in achieving its intended goals and producing the desired outcomes (Kirkpatrick, 1994). Training effectiveness refers to the extent to which training programs are able to improve employees' skills, knowledge, attitudes, and behavior in a way that contributes to organizational goals (Noe, 2013). In other words, training effectiveness is the ability of a training program to achieve its intended outcomes, such as improved job performance, increased productivity, and better customer service (Abdullah et al., 2016). It can be measured through various evaluation methods, such as reaction evaluation, learning evaluation, behavior evaluation, and results evaluation (Phillips, 1997). The effectiveness of training is measured by how effectively learning and learning transfer are supported. The efficacy of training may be assessed in a variety of ways. If at all feasible, evaluate both learning and learning transfer. An increased degree of variety among trainees should provide a great diversity of outcomes if training, as we have assumed, produces in outcomes or effectiveness in part from a consideration of positive and negative elements at pre- and post-training stage. The motivation and focus of the trainee help to anticipate how successful the instruction will be (Tziner & Fisher & Weisberg, 2007). Diversity training promotes the effectiveness of training (Holladay & Quiones, 2008). However, training variety enhances management effectiveness and staff performance (Combs & Luthans,

2007). The efficacy of your training relates to how effectively it facilitates learning and learning transfer. There are several methods for assessing training efficacy. The organization is there for its trainees and full-time employees, which means it has a good chance of riding the effectiveness wave to a successful conclusion. But to get the most out of diversity training, trainees need to do their homework before the training begins, and that will help foster an open and accepting environment (Chung, 2013).

The trainer's characteristics and the nature of the training environment may have a wide range of effects on how well they work. Because of the wide variety of officers in training, it is likely that certain groups will persist in their pursuits. The same pattern emerges across several companies, with managers making similar claims. So, there is evidence in the literature that the training officer's demeanor, outlook, expertise, and training setting all contribute to the success of the training. In which the training setting makes a significant contribution to improving practicality (Venkatesh & Speier, 1999). Student's demeanor and conduct were modified as a result of exposure to, or participation in, the workplace (Noe & Schmitt, 1986). The training is largely influenced by the work environment (Hutchins, 2009). Training assessment aids in the collection of all descriptive and judgmental information essential to make sound training choices. According to Burrow and Berardinelli (2003), the assessment stage should be considered as a component of a successful training process and a foundation for improving organizational decision making concerning human performance development. According to Bee and Bee (1994), evaluating training programs is necessary because the evaluation process improves the efficiency and effectiveness of training programs, the results display the organization's impression about trainers' performance in the program and helps them to improve their training skills, and the expenditure on the programs is justified.

As a result, as long as an organization pays attention to and stresses training assessment in order to uncover training contributions, training is considered as an essential organizational function that improves or helps to enhance organizational performance.

2.8 Measuring Training Effectiveness

Training effectiveness is a crucial aspect of organizational performance, especially in the banking sector where employees need to be equipped with the necessary skills and knowledge to provide quality services to customers. Measuring training effectiveness is essential to evaluate the training programs' impact on the employees' performance and the organization's overall success.

Measuring training effectiveness within the banking industry of Bangladesh necessitates a keen focus on the interplay between training environments and their impact on learning outcomes. Understanding the nuances of the training environment, including factors such as access to resources, instructor expertise, peer collaboration opportunities, and organizational support, is pivotal in assessing the efficacy of training initiatives. Evaluating how these environmental factors facilitate or hinder the acquisition and application of new knowledge and skills provides valuable insights into the effectiveness of training programs. Employing methods such as observational assessments, feedback mechanisms, and surveys tailored to gauge trainee perceptions of the training environment can illuminate its influence on learning outcomes. Additionally, analyzing performance metrics before and after training interventions can reveal correlations between the quality of the training environment and improvements in employee competencies and job performance. By systematically evaluating the alignment between training environments and desired learning outcomes, organizations can optimize their

training strategies to foster a conducive atmosphere for skill development and organizational growth.

One study conducted by Ahmed et al. (2018) aimed to identify the factors that influence training effectiveness in the banking sector of Bangladesh. The study found that training effectiveness is influenced by the trainee's motivation, training design, and training evaluation methods. Another study by Sultana et al. (2019) explored the impact of training on employee performance in the banking sector of Bangladesh. The study revealed that training significantly improves employee performance, and the training effectiveness could be measured by evaluating the changes in employee behavior and the organization's overall performance. This literature review examines various studies that have explored the measurement of training effectiveness in the banking industry of Bangladesh. Envision yourself learning the value of training to your organization's developed personnel and the whole training process. Goal-setting and self-management practices used in the post-training phase contribute to the consolidation or expansion of acquired competence (Gist & Stevens & Bavetta, 1991). As noted by Keith and Frese (2005), self-regulation provides support for managing the learning process in the face of errors. It is reasonable to infer that both the organization's and the staff's productivity have benefited from the training's success. This methodology has four stages of assessment. The first level is the response level, where learner reactions are interpreted to signify how they perceive and subjectively assess the relevance and quality of the training. It tries to answer questions about the participants' impressions, such as "Did they enjoy it?" Was the information relevant to their job? This form of assessment is sometimes referred to as a "smileysheet." Kirkpatrick believes that every program should be assessed at this level in order to enhance training programs. At this stage, assessment assesses the satisfaction of those who participated in the course. Positive emotions, in combination with that, are crucial in developing adequate

learning motivation. In this way, the emotions of the participants have significant implications for learning (level two). A good response does not ensure learning, but a negative reaction almost surely diminishes the likelihood.

A study by Ahsan and Shahzad (2017) found that the use of modern technology and the provision of on-the-job training were positively associated with training effectiveness in the banking sector of Bangladesh. Similarly, Ferdous and Islam (2013) highlighted the importance of employee motivation and job relevance in improving the effectiveness of training programs. Islam and Ferdous (2014) emphasized the role of training evaluation in identifying the strengths and weaknesses of the training programs and making necessary improvements for enhancing the effectiveness of the training. Furthermore, the organizational culture of commercial banks also plays a vital role in the effectiveness of training programs. Akkoyun and Bayir (2010) found that a positive and supportive organizational culture can improve the transfer of training and ultimately increase the effectiveness of training programs. Additionally, Arafat and Islam (2019) highlighted the importance of top management support and commitment in creating a learning culture in the organization and improving the effectiveness of training programs. Most of the previous theories measured training effectiveness by reactions, learning, behavior, and finally intended results (Keith and Frese, 2005). Again, level of effectiveness can be understood by the changes of knowledge, skills, attitude, behavior and contribution to the organizational productivity (Islam and Ferdous, 2014).

2.9 Measuring Training Effectiveness in the Banking Industry

A bank may provide training to its workers in a variety of ways. Trainers must first determine which abilities are most important for each employee. For example, a bank officer needs have excellent listening skills in order to assist customers. A good

mathematician is required for a teller. Bank training guarantees that every officer receives the training he or she needs to accomplish his or her obligations.

Furthermore, the organizational culture of commercial banks also plays a vital role in the effectiveness of training programs. Akkoyun and Bayir (2010) found that a positive and supportive organizational culture can improve the transfer of training and ultimately increase the effectiveness of training programs. Additionally, Arafat and Islam (2019) highlighted the importance of top management support and commitment in creating a learning culture in the organization and improving the effectiveness of training programs.

Another study by Al-Mamun and Hossain (2014) highlighted the importance of training methods and techniques, employee participation, and evaluation of training programs for enhancing training effectiveness. In contrast, Akkoyun and Bayir (2010) found that the training needs analysis and training evaluation are the most significant predictors of training effectiveness in the Turkish banking sector. Ferdous and Islam (2012) investigated the impact of pre-training preparation, quality of training, and post-training follow-up on training effectiveness in the banking industry of Bangladesh. They found that all these factors significantly contribute to the effectiveness of training programs. Furthermore, Hasan and Khan (2015) argued that employee learning motivation, feedback, and reinforcement are critical determinants of training effectiveness in the banking industry of Bangladesh. In a recent study, Islam, Sultana, and Hasan (2019) examined the impact of training design, delivery, transfer of training, and organizational support on training effectiveness in the banking sector of Bangladesh. They found that all these factors significantly contribute to training effectiveness. Additionally, Jahan and Juyena (2014) studied the impact of training needs assessment, training design, delivery, and transfer of training on training effectiveness in the banking sector of Bangladesh.

Learning skills in a classroom are fantastic, but they don't always assist when it comes time to use that knowledge on the shop floor. Such an atmosphere should be developed so that cops may practice their skills. This will allow them to learn how to deal with walk-ins at the branch.

M S Verma's Advisory Board for Public Sector Bank Restructuring Week (1999) Watched as middle-level leadership at a few institutions is actually poor. This is largely due to insufficient abilities, both in traditional areas of bank activities and in new advancements in which most banks are moving in specific functions like credit, treasury activities, outside trade, and, of course, Information Technology (IT), a portion of the banks are amazingly inadequate in abilities, which is why they are out of the market. D.N. Ghosh (1999)

According to Latif, there are a huge number of competent people with medium and upper level expertise in the clerical framework, but their job execution is well below their capacity. They did not seem to be exhausted and did not appear to be fully using their abilities. As a result, the training program for them is ineffective since they show little interest (Latif T.A.A. 1977).

Table 2.2: Determinants of Training Effectiveness

(Based on some substantial Literature Review)

SL No	Authors	Factors	Description
1	Ahsan and Shahzad (2017)	Training methods	The authors found that on-the-job training methods are more effective than off-the-job methods.
2	Alam (2014)	Training design	The author recommends that banks should design training programs based on specific job requirements

			and needs of employees.
3	Al-Mamun and Hossain (2014)	Training design	The authors found that a well-designed training program should take into consideration the specific needs and objectives of the organization, as well as the knowledge, skills, and attitudes of the trainees.
4	Arafat and Islam (2019)	Training methods	The authors found that training methods such as lecture, discussion, and case study were most effective in commercial banks.
5	Akkoyun and Bayir (2010)	Training content	The authors suggest that training programs should cover both technical and behavioral aspects to be effective.
6	Ferdous and Islam (2012)	Training methods	The authors found that on-the-job training methods are more effective than off-the-job methods.
7	Ferdous and Islam (2013)	Training design	The authors suggest that training programs should be designed based on the specific needs of employees and their job requirements.
8	Hasan and Khan (2015)	Training design and methods	The authors found that a well-designed training program should consider the specific needs and objectives of the organization, as well as the knowledge, skills, and attitudes of the trainees. They also suggest that training methods such as on-the-job training, coaching, and mentoring can be effective.
9	Islam and Ferdous	Training content	The authors suggest that training programs should cover technical, behavioral, and managerial aspects to be

	(2012)		effective.
10	Islam and Ferdous (2014)	Training methods	The authors suggest that training methods such as on-the-job training, coaching, and mentoring can be effective.
11	Islam, Sultana, and Hasan (2019)	Training methods	The authors found that training methods such as lecture, case study, and discussion were most effective in commercial banks.
12	Jahan and Juyena (2014)	Training content	The authors suggest that training programs should cover both technical and behavioral aspects to be effective. They also recommend that training programs should be designed based on the specific needs of employees and their job requirements.
13	Kabir and Hossain (2013)	Training content	The authors suggest that training programs should cover both technical and behavioral aspects to be effective.
14	Karim and Islam (2014)	Training methods	The authors found that training methods such as lecture, discussion, and case study were most effective.
	Kunche et al. (2011)	Knowledge, Skills, Intended outcomes	Assessing the learner's skills and knowledge to gauge the effectiveness of the training. Its purpose is to ascertain whether the training has achieved the intended outcomes at both individual departmental and organizational levels.

Source: Self-Created

2.10 Measuring Training Effectiveness in the Banking Industry of Bangladesh

2.10.1 Kirkpatrick Model

In 1954 Donald L. Kirkpatrick completed a PhD dissertation for the University of Wisconsin entitled “Evaluating a Human Relations Training Programme for Supervisors”. In it he proposed a simple chain of causality from attending a training programme to eventual improved performance in the workplace; it was his contention that this causal chain was a prerequisite for training to be considered as successful. Donald Kirkpatrick, a University of Wisconsin professor and former president of the American Society for Training and Development (ASTD), initially published his four-level training assessment model in the US Training and Development Journal in 1959. When he published his best-known article, "Evaluating Training Programmes," in 1994, he modified the model.

Kirkpatrick's model is widely used for measuring training effectiveness in various industries, including the banking sector in Bangladesh. The model consists of four levels of evaluation: reaction, learning, behavior, and results (Kirkpatrick, 1959). In the first level, reaction, the focus is on participants' satisfaction and feedback on the training program. The second level, learning, assesses the knowledge, skills, and attitudes that participants have acquired during the training. The third level, behavior, measures whether the participants have implemented what they learned during the training in their work. The fourth level, results, evaluates the overall impact of the training on organizational outcomes such as productivity, performance, and profitability (Kirkpatrick, 1994).

Several studies have utilized the Kirkpatrick model to evaluate the effectiveness of training programs in the Banking Industry of Bangladesh. For instance, Rahman et al. (2018) used the Kirkpatrick model to evaluate the effectiveness of a training program for the employees of a private bank. The authors found that the training program had a positive impact on the participants' knowledge, skills, and attitudes, as well as on the bank's

performance. Similarly, Hasan et al. (2020) utilized the Kirkpatrick model to evaluate the effectiveness of a training program for the employees of a public bank. The authors found that the training program had a significant impact on the participants' knowledge, skills, and attitudes, as well as on the bank's performance. Moreover, Akter et al. (2019) evaluated the effectiveness of a training program for the employees of a private bank using the Kirkpatrick model. The authors found that the training program had a positive impact on the participants' satisfaction, knowledge, skills, and attitudes. Previous studies used Kirkpatrick model to evaluate training effectiveness (dependent variable) in connection with training program, training and development practices, training facilities etc. (independent variable) (Alliger et al., 1997; Philips, 1997). This study also used Kirkpatrick model to evaluate training effectiveness (dependent variable) in connection with training environment (Independent variable) as training environment now considered as very important influential factor for increasing training effectiveness (Kunche, 2011; Alliger et al., 1997; Philips, 1997).

Because of its simple and practical ideas, this is the most often utilized model by organizations and the most widely mentioned in research on the issue (Plant & Ryan, 1992; Oberman, 1996). The following paragraphs go into great depth on Kirkpatrick's assessment model:

2.10.1.1 Reactions and Training Effectiveness

One of the components of the Kirkpatrick Model for measuring training effectiveness is the participant's reaction to the training program. This component refers to the degree to which participants find the training program satisfactory, engaging, and relevant to their job performance (Kirkpatrick & Kirkpatrick, 2016). Participants' reactions and the number of learning goals learners have learned are necessary for evaluating the success of any

training session. Even if the response and learning are both favorable, it doesn't mean the transfer will be effective. Yet, the effectiveness of a research depends on understanding how participants responded and how much they learned.

Once upon a time, "trainee responses" meant how satisfied the trainees were with the training itself. The importance of this kind of response measure is emphasized by Kirkpatrick (1977) and others (e.g., Alliger et al., 1997). This is because trainees may be seen as consumers of the training program. Therefore, the level of customer satisfaction may be determined by surveying former students about their experiences with the training program. There were found to be three different response elements by War and Bunce (1995): reported pleasure of the training, perceived utility of the training, and perceived difficulty of the training content. Additional evidence for the impact of trainee emotions on training material acquisition was presented by Mathieu et al. (1992).

In the context of Banking Industry in Bangladesh, several studies have investigated the relationship between participants' reactions and training effectiveness. For example, in a study by Khan and Bari (2017), they found that participants' satisfaction with the training program positively influenced their job performance in the banking sector. Similarly, Hasan et al. (2018) found that participants' positive reaction to the training program was significantly associated with their perceived improvement in job performance. Other studies have also reported a positive relationship between participants' reactions and training effectiveness in the banking sector. For instance, a study by Ahmed et al. (2021) found that participants' satisfaction with the training program significantly predicted their knowledge acquisition and job performance. In another study by Hossain et al. (2020), participants' positive reaction to the training program was found to have a positive impact on their skill development and job satisfaction.

Because it's simple to implement and most people don't have much experience assessing higher levels, this kind of evaluation is by far the most common (Plant & Rayon, 1992; Tannenbaum & Woods, 1992; Alliger et al., 1997; Nelson & Dailey, 1998).

2.10.1.2 Learning and Training Effectiveness

An individual acquires knowledge when they "understand and internalize" a set of concepts, facts, and processes, as stated by Kirkpatrick (1959). As Kirkpatrick (1959) argues, the focus of learning should not be on practical application. Workplace application is the focus of the third and final level of the Competency Model, Behavior. Kirkpatrick (1959) acknowledged that multiple forms of learning occur depending on the nature of the training provided, and he proposed a number of methods for evaluating the success of the training.

Several studies have explored the relationship between learning and training effectiveness in the Banking Industry of Bangladesh. Ahmed et al. (2015) conducted a study on a private commercial bank and found that there was a positive relationship between learning and training effectiveness. Similarly, Rahman et al. (2015) conducted a study on a public commercial bank and also found a positive relationship between learning and training effectiveness. Moreover, other studies have used the Kirkpatrick model to measure training effectiveness and have found that learning is a critical component of training effectiveness. For instance, in a study conducted by Hoque et al. (2015) on a private commercial bank, they found that learning was a significant predictor of training effectiveness, as measured by the Kirkpatrick model. Similarly, in a study by Uddin and Zaman (2017) on a public commercial bank, they found that learning had a positive impact on training effectiveness. Furthermore, various studies have highlighted the importance of ensuring that employees have the necessary knowledge and skills to perform their job

responsibilities effectively. For instance, Islam and Alam (2016) conducted a study on a private commercial bank and found that training improved employees' knowledge and skills, which, in turn, led to improved job performance. Similarly, Hossain and Rahman (2016) conducted a study on a public commercial bank and found that training improved employees' knowledge and skills, which ultimately led to improved job performance.

"Up until now, the majority of training assessment research has focused on improvements in students' verbal understanding of concepts and facts or their behavioral display of abilities. Kraiger et al. (1993) acknowledge this but contend that this recognition leads to an unduly narrow definition of training evaluation research's focus on learning outcomes. Kraiger et al., broadens the traditional understanding of learning by suggesting three types of learning outcomes: cognitive, skill-based, and emotional.

Overall, the literature suggests that there is a positive relationship between learning and training effectiveness in both Banking Industry in Bangladesh. Additionally, training can improve employees' knowledge and skills, leading to better job performance.

2.10.1.3 Behavior and Training Effectiveness

Changes in participant behavior on the job as a consequence of the training program constitute Kirkpatrick's third level of training criterion (Kirkpatrick, 1997). Changes in performance following training are the primary focus of the third level of evaluation. To wit: (Truclove, 1997; Kirkpatrick, 1997).

One of the crucial aspects of measuring training effectiveness is examining the changes in employee behavior resulting from the training program. Behavior can be defined as the application of knowledge, skills, and attitudes learned during the training program in the workplace. The Kirkpatrick Model provides a framework for evaluating behavior as part of training effectiveness measurement. In the context of the Banking Industry of

Bangladesh, studies have explored the relationship between behavior and training effectiveness. For instance, a study by Islam and Aktar (2018) investigated the impact of training programs on employee behavior in the context of Banking Industry in Bangladesh. The study found that training programs had a positive effect on employee behavior in both Banking Industry. Another study by Hasan and Rahman (2016) examined the impact of training programs on employee behavior in the context of private banks in Bangladesh. The study found that training programs had a positive impact on employee behavior, including job performance, customer service, and communication. Moreover, a study by Ahmed and Ahmad (2017) investigated the relationship between training programs and employee behavior in the context of private banks in Bangladesh. The study found that training programs significantly improved employee behavior in terms of customer service, communication, and teamwork.

Studies examining training transfer, or the degree to which trainees use what they've learned in training on the job, are the most representative of the work done in this field by psychologists (Baldwin & Ford, 1988). The best efforts of training designers and trainers to develop and deliver high impact training programmes are unlikely to result in training transfer unless the trainee's work environment or organization supports the use of trained skills on the job (Rouiller & Goldstein, 1993; Tannenbaum & Yukl, 1992).

2.10.1.4 Result and Training Effectiveness

The effect of training on an individual's or a company's outcomes is often how level 4 of Kirkpatrick's model is described. Revenue, ROI, product quality, worker retention, and accident rates are all examples of measurable outcomes (Kirkpatrick, 1977). The literature on training assessment is sparse, especially when it comes to research reporting level 4 criteria. Kirkpatrick (1997) argues that the fourth level is the most important from the

company's perspective since it determines whether or not the training has been successful in meeting its objectives and whether or not the company's requirements have been met. Since training is an investment, it's important for businesses to make sure that their returns will exceed their initial outlays. Many writers agree that this evaluation is essential (Casio, 1989; Bee & Bee, 1997).

In this study, we aim to measure the relationship between training effectiveness and results by applying the Kirkpatrick Model in Banking Industry of Bangladesh. In the Banking Industry of Bangladesh, the Kirkpatrick Model has been applied to evaluate the effectiveness of various training programs. For instance, a study by Rahman and Uddin (2019) applied the Kirkpatrick Model to evaluate the effectiveness of training programs in private banks in Bangladesh. The study found that training programs positively impacted the participants' knowledge and skills and resulted in better performance and job satisfaction. Similarly, a study by Hossain and Islam (2021) evaluated the effectiveness of training programs in public banks in Bangladesh using the Kirkpatrick Model. The study found that training programs had a significant impact on the participants' behavior and resulted in better customer service and operational efficiency.

According to Alliger and Janak's (1989) comprehensive literature study of training evaluation findings, only three out of 203 empirical investigations evaluated all four levels. Despite this, only a minority of businesses ever attempt to evaluate the fourth level (Plant & Ryan, 1992; Shelton & Alliger, 1993). There aren't any obvious, straightforward ways for measuring outcomes and comparing them to the training activity, and collecting and evaluating data at this level is notoriously difficult and expensive. It is challenging to establish clear cause-and-effect correlations because of the need for a long-term viewpoint. Results are often measured at the organizational or departmental levels, making it difficult to isolate the impact on a single person or unit. Last but not least, training is merely one of

many aspects that influence an organization's success (Kaufman & Keller, 1994; Parry, 1996).

The effect of training on an individual's or a company's outcomes is often how level 4 of Kirkpatrick's model is described. Profits, returns on investment, sales, quality, staff turnover, and injury rates are all examples of measurable outcomes (Kirkpatrick, 1977). Until recently, there were not many reports of level 4 criteria in training assessment studies. Kirkpatrick (1997) argues that the organization should place the greatest emphasis on the fourth stage, which involves determining whether or not the training was successful in meeting its objectives and whether or not the organization's requirements were addressed. Since training is an investment, it's important for businesses to ensure that their returns exceed their initial outlays. Many scholars agree that this evaluation is essential. Evidence for this view may be found in (Casio, 1989; Bee & Bee, 1997).

According to Alliger and Janak's (1989) comprehensive literature study of training evaluation findings, only three out of 203 empirical investigations evaluated all four levels. Despite this, only a minority of businesses ever attempt to evaluate the fourth level (Plant & Ryan, 1992; Shelton & Alliger, 1993). In particular, there is a lack of clear, direct ways for measuring outcomes and comparing them to the training activity, and the complexity and high costs of gathering and evaluating data at this level. It's also important to think in the long run.

2.10.2 The Hamblin Model

This model may be considered as an extension of Kirkpatrick since the levels and the method of evaluation are similar. Hamblin (1974) proposed a conceptual framework of assessment that skips over the tangled phases of evaluation articulated by Kirkpatrick by

tying together training goals and evaluation goals, which may be aimed at a cost benefit approach, a job-related approach, or a training-centered approach.

In addition to the goal-setting and training stages, Hamblin has also attempted to provide principles for the development of different management methods at different stages of assessment. The five-tier system advocated by Hamblin (Clements and Jones, 2002) is as follows:

1. **Level 1 Reaction:** This part of the assessment, like Kirkpatrick's, focuses on the student's emotional response to the instruction. Hamblin added a temporal dimension by proposing that responses be elicited before, during, and after the occurrence.
2. **Level 2 Learning Behavior:** The training's effects on trainees' knowledge, abilities, and behaviors are evaluated at the Learning Behavior assessment stage.
3. **Level 3 Job Behavior:** Work Behavior Evaluations seek to determine how the training will affect productivity on the job.
4. **Level 4 Functioning:** To ascertain whether or not the training has produced any systemic shifts in the organization. Someone proposed putting a monetary value on them.
5. **Level 5 Ultimate Value:** The ultimate goal of this level is to establish a connection between the training and the growth, profitability, and continued existence of the organization.

There are clear similarities between this strategy and the Kirkpatrick agenda, and the goal here seems to have been to emphasize that connection with actual measures of success inside an organization. Similar to Kirkpatrick, Hamblin indicates priority areas for measurement but offers nothing in the way of specific advice for organizing or gathering

such information. Similar to Kirkpatrick, assessment happens only after training is complete in this methodology.

Criticism of the Hamblin Model

There are several valid points of view about the Hamblin Model's detractors. Some designs propose include extra stages for things like calculating social effect and financial return, however this overlooks the possibility of unexpected intervening factors. This is clearly a model built by a training professional for use by other training professionals and this is the heart of the problem. If we are truly to assess the organizational value of learning initiatives we need to move firmly into the operational environment and fully involve business and line managers in the evaluation process. As Parry is quick to point out, this formal evaluation must be done by somebody other than the trainer and learning or performance contracts between the trainer, trainee and line manager should be negotiated prior to the intervention taking place (Parry 1997).

2.10.3 The CIRO Model

In the late 1960s, Europeans Warr, Bird, and Rackham developed a standardized method for evaluating the success of management education programs (Warr, Bird et al. 1970).

This four-letter abbreviation defines a four-step process as follows:

- 1. C–Context evaluation:** This is a diagnostic phase in which data is gathered regarding the existing state of operations to establish whether or not training is necessary and, if so, what its goals should be.
- 2. I–Input evaluation:** Weighing facts and evidence to select the best intervention technique to meet the specified objectives is the primary focus here. You might also call it "the training design process" for short. Business urgency, resource

availability, speed of deployment, and expected return on investment are all factors that might influence the final decision.

3. **R–Reaction evaluation:** This is equivalent to the "happy sheet" on the Kirkpatrick scale. The goal is to try to enhance the training process by collecting mostly subjective data from training participants themselves.
4. **O–Outcome evaluation:** This is a retrospective look at how well the Context evaluation's three categories of goals were met, with the ultimate goal of providing useful information for shaping and refining future initiatives.

By including corporate sponsors in outlining the initiative's goals and success criteria before the training even begins, this methodology shows an effort to push assessment forward in time. For this reason, it is important to undertake an extensive post-project review in order to ascertain whether or not the desired results were really accomplished. Consequently, it represents a major development toward a more all-encompassing and business-oriented approach.

Criticism of the CIRO Model

This approach has been criticized for its lack of behavioral consideration. Consequently, some experts believe it is more suited to training programs aimed at upper management than those aimed at employees at lower levels of an organization. Another challenge with CIRO is that it only considers data collected before and after training has occurred. That this approach is most suited to the training management programme is the opinion of certain working professionals. People operating at lower levels of the company shouldn't use it since it doesn't take their behavior into consideration.

2.10.4 The CIPP Model

Similar in structure to the CIRO approach, the CIPP method was developed in the USA during the early 1980s by a group of leading educators on the National Study Committee on Evaluation of Phi Delta Kappa, an International Society for professional educator.

This method gained considerable early recognition and popularity, as evidenced by a report of the ASTD in 1983. Of 300 members surveyed, an 80% response rate showed that 126 or the 225 respondents preferred the CIPP model against only 82 in favour of Kirkpatrick, with 17 showing no preference (Galvin 1983). Despite this early ascendancy over the Kirkpatrick model, especially in the USA, the technique now enjoys little profile. At its height the method was considered to be particularly useful in the evaluation of management training.

This four-letter acronym describes a four-stage approach thus:

1. **C-Context evaluation:** Mainly at this point, the intended outcomes of the training are decided upon. The purpose of this analysis is to identify the challenges and potential solutions that the intended audience faces in terms of performance. This methodology has many similarities to the more commonplace Training Needs Assessment (TNA) method, and it has become a normal part of the training process.
2. **I-Input evaluation:** The purpose of this phase, which contributes to programme planning, is to figure out what tools and approaches are at one's disposal and how best to address the requirements indicated in the Context analysis. The usage of third-party service providers is one possibility, as is the increasingly popular strategy of relying on "e" enabled learning processes. Policy statements, proposals, RFTs, timetables, and certification needs are all possible outcomes of this phase.
3. **P-Process evaluation:** At this point, helping with the actual implementation is the

main focus. In order to explain what is really happening on the programme and to give information to trigger pre-planned remedial measures, it might utilise a variety of data collection approaches, most of which are subjective and post hoc.

4. **P-Product evaluation:** At this point, helping with the actual implementation is the main focus. In order to explain what is really happening on the programme and to give information to trigger pre-planned remedial measures, it might utilise a variety of data collection approaches, most of which are subjective and post hoc.

Criticism of the CIPP Model

Unfortunately, there are flaws in the CIPP assessment approach as well. The evaluator's occasional inability to answer to some major questions or concerns may be a shortcoming of this technique. Evaluators need to take into account the available time and resources while establishing assessment methods. As with CIRO, the CIPP model moves the focus upstream, where it remains throughout the process, where it has a robust diagnostic phase and actively promotes the deliberate selection of intervention strategy to meet the performance issue rather than assuming that all problems are training problems. In the Process section of the assessment, program direction is acknowledged for the first time. Finally, it acknowledges the possibility of unexpected effects that enhance the value of the program by concentrating on outcomes.

2.10.5 The Phillips ROI Model

The lack of a common corporate vocabulary is often cited as a weakness of the Kirkpatrick model. Learning and development professionals were yearning for a strategy that gave a clear financial explanation for their programs in a world where training must compete for money with other organizational imperatives. Given this context, Jack Phillips

recommended including a fifth level in the Kirkpatrick model for directly calculating financial return on investment (ROI) (Phillips 1997). While the Phillips method is more prescriptive than many of its predecessors, it is perhaps simpler to apply than the likes of Kirkpatrick since it not only expands on the latter but also adds a process level that was lacking in the latter. The Phillips Return on Investment (ROI) Methodology consists of the following five stages:

Level 1: Reaction: Like the Kirkpatrick Model, the Phillips ROI Model starts with an assessment of how well the training went over with the participants.

Level 2: Learning: The second stage of the Phillips ROI Model assesses the effectiveness of the training in terms of the knowledge gained.

Level 3: Application and Implementation: The Phillips Return on Investment Model, like the Kirkpatrick Model, assesses the value of training based on whether or not participants use what they've learned in the job. Phillips's method, on the other hand, can tell a company if the problem is with the learning itself or with how it's being put into practice. This is a minor but significant advancement over the previous Kirkpatrick Model.

Level 4: Impact: In contrast to the narrow results-only emphasis of Kirkpatrick's fourth level, the Phillips ROI model considers the training's wider effects. This allows us to determine whether or not training alone produced the desired results.

Level 5: Return on investment (ROI): The fifth level of the Phillips ROI model distinguishes it from the Kirkpatrick Model, which compares training outcomes only to stakeholder expectations (ROE). The purpose of this is to calculate the ROI, or return on investment. At this stage, you'll examine the cost-benefit ratio to figure out which courses are worth your time.

Phillips's return on investment analysis is predicated on a narrow view of the program's monetary advantages. He suggests developing the training's first-year benefit by applying

annualized figures for programs lasting between one day and one month. While Benefit-to-Cost Ratios (BCRs) are one way to think about the bottom line, most businesses use the following method to determine ROI:

$$\text{ROI} = \frac{\text{Net Training Benefit}}{\text{Training Cost}} \times 100$$

The training expenses were recovered plus an extra amount equal to 1.5 times the initial outlay, which is why a return on investment of 150% indicates a positive financial outcome.

The Phillips model is intriguing for two reasons: first, it offers a comprehensive procedure for assessment, beginning with the formulation of learning goals and ending with the production of a training effect study, which is essential for calculating return on investment. Figure 3 shows the model in its extended version (Phillips and Stone 2002).

While the math itself is straightforward, determining how to accurately allocate costs is a significant challenge. In what time frame does this expense occur? Do you factor in the money you might have made if you weren't spending time in training? Many review efforts fail because they fail to correctly identify benefits, which is just as challenging as assigning costs. Phillips emphasizes isolating the training's impacts for the best results. While this may be achievable in the case of narrowly focused programs like health and safety measures, it is often not possible to disentangle the impact of training from that of other relevant activities, such as policy changes, which may be taking place at the same time. Another major problem is that it sometimes takes a while for the learner to feel comfortable using their new skills and knowledge or to have the chance to build better performance after the training has ended (Parry 1997). Phillips suggests using benefits forecasting, in this instance, participant estimate of effect, to mitigate some of these issues. Participants in the training are polled to find out how much of an improvement in the

process they attribute to the training; these estimates are then modified to get rid of any inflated or unjustified assertions. Phillips argues that his methodology yields very reliable results thanks to five modifications that give him what he calls conservative estimates (Phillips and Stone, 2002).

Criticism of the Phillips ROI Model

The Phillips Return on Investment Model has been criticized for its post-delivery ROI calculation. It is too late to make adjustments if you discover that the cost of a program's delivery exceeds the value it provided. Some have argued that it would be feasible to roughly predict the return on investment (ROI) of various training courses prior to making a training program selection. However, in 2010, Jack and Patti Phillips authored *The Consultants Guide to Results-Driven Business Proposals: How to Write Proposals That Forecast Impact and Return on Investment*, which devoted its whole contents to forecasting. This kind of return on investment estimation is obviously very helpful when organizing a training session. You may use them to figure out where you want your company to go and how much money you need to get there. The Phillips model has spawned a range of automated data collection models such as “Metrics that Matter” from Knowledge Advisors. Incidentally both Kirkpatrick and Phillips are associated with the Board of this company (Barnett and Coate, 2005).

The lack of relevance of the Phillips ROI Model to real-world business situations is another major complaint leveled against it. Knowing this is helpful, but not required. After all, there's little use in spending the time and effort necessary in calculating level 4, the ROI, if you've already assessed the training course on Phillips' first four levels and know the program was a success from the Level 4 metrics (Impact).

The author of this article, Jack Philips, claims that not all training programs need to consider return on investment. They suggest Level 1 evaluations for all programs, Level 2

evaluations for 90%, Level 3 evaluations for 30%, Level 4 evaluations for 10%, and Level 5 evaluations for 5%. Whether or whether a ROI study is warranted is determined by a number of criteria, including the training's objectives, its cost, and its exposure to the public. Patti Phillips' book *The Bottomline on ROI* goes into much detail on this topic. Since these are the most costly programs, the programs with the greatest audiences, and the programs that occupy a significant amount of time and resources, the good news is that 5-10% of programs normally cover around half of the learning budget, as stated by Jack Philips.

2.10.6 Kaufman's Model

In the winter 1994 issue of *Human Resource Development Quarterly*, Roger Kaufman and John M. Keller published *Levels of evaluation: Beyond Kirkpatrick*. Eventually, Kaufman's model came to be known as Kaufman's Five Levels of Evaluation or simply Kaufman's Model of Learning Evaluation. Kaufman's model, like Phillips's ROI Model, was heavily indebted to the Kirkpatrick Model with a few tweaks and alterations. Kaufman's Model takes the following approach:

- **Level 1a: Input:** Were the training resources and materials suitable and appropriate?
- **Level 1b: Process:** Was the training well delivered?
- **Level 2: Acquisition:** To what extent did participants acquire new knowledge and skills?
- **Level 3: Application:** To what degree did participants utilize their learning or training in their on-the-job roles?
- **Level 4: Organizational Results:** In what ways did the organization benefit from the training?

- **Level 5: Societal/customer consequences:** How did the training impact on the organization's customers and society at large?

It is easier to determine if the training materials or the delivery were the cause of the success or failure of a training course because of the separation of 'input' and 'process' in Kaufman's model. However, most organizations don't bother with the fifth level of Kaufman's Model, which deals with societal and consumer consequences.

Criticism of Kaufman's Model

It's helpful that Kaufman emphasizes the need to assess instructional materials independently of their delivery. His sixth stage is when I lose interest. Most companies already have a hard enough time tracking how a training program affects key performance indicators (KPIs) within the company, without adding the challenge of trying to extrapolate those findings to the wider community. Customers' reactions matter, but measuring their reactions is usually part of standard business measures.

2.10.7 Anderson Model

Anderson's model of learning assessment will serve as our last example of a framework for assessing instructional effectiveness. Anderson's Value of Learning Model was initially published in 2006 by the Chartered Institute of Personnel and Development. There are two key ways in which this model stands out from others used to evaluate training.

The Value of Learning Model, for starters, is primarily concerned with ensuring that a company's training initiatives are in line with its long-term goals. The Anderson Model is intended to be applied at the management level and to span the whole company, in contrast to other training evaluation models which concentrate closely on the learner and whether or not they gained value from the training.

Second, unlike other models, this one doesn't analyze data based on each specific program's success. Instead, it considers the organization's long-term objectives and determines whether or not the training programs are meeting those needs or if any adjustments need to be made. In order to find the most effective method of training for a company, Anderson proposes a three-stage cycle.

The three stages are:

Stage 1: Determine the current alignment of training against strategic priorities for the organization.

Stage 2: Use a range of methods to assess and evaluate the contribution of learning.

Stage 3: Establish the most relevant approaches for your organization.

Criticism of Anderson Model

Andersen contends that the social structure is incorporated in the predisposing features component of the model, which has been criticized for not paying enough attention to culture and social interaction. But Andersen argues that need is an artificial concept created by society (Wolinsky and Johnson, 1991). For this reason, we distinguish between felt and assessed need. Perceived need, in contrast to assessed need, is influenced by health attitudes, such as whether or not one considers one's illness bad enough to need medical attention. Furthermore, the approach suffers from a lack of flexibility due to its binary focus on health care usage and health outcome adoption. It is important to other models of assistance seeking that informal resources like word-of-mouth be taken into account (Wilson et al., 2005). Help-seeking behaviors have been expanded to include internet and other non-face-to-face sources in recent years, making the research more realistic and applicable to real life (Wolinsky and Johnson, 1991).

The overemphasis on the individual's situation was also criticized, as was the disregard for cultural norms and social support systems when prioritizing individuals' needs. It is more

difficult to draw parallels between other training evaluation models and the Anderson model of learning assessment because of its own methodology. Although this strategy reduces the time and effort needed to gather data, the assessment of learning still needs careful and knowledgeable implementation.

Which Model Should I Use?

Which one of these models do I use for measuring effectiveness of employee training in the banking industry of Bangladesh? There are multiples models used by different researcher to measure training effectiveness in different organization but Kirkpatrick model is the basis of all models (Rouiller & Goldstein, 1993; Tannenbaum & Yukl, 1992). This study mainly developed a conceptual model to investigate the impact of training environment on training effectiveness with a mediation effects of motivation in the banking sector of Bangladesh. This conceptual model developed based on the Kirkpatrick (1977) model.

2.11 Mediating Role of Training Motivation in the Relationship between Training Environment and Training Effectiveness

2.11.1 Training Environment and Training Motivation

Employees of the banks may benefit greatly from an improved knowledge base and skill set thanks in large part to the training environment and training motivation. The purpose of this literature study is to examine the present state of knowledge on the training atmosphere and the training motivation in the banks of Bangladesh.

Motivating people to learn effectively requires a conducive setting in which to do so. Rahim and Hossain (2018) state that when workers are provided with a positive training environment, they are more likely to engage in training opportunities. In a similar vein, Akter and Hossain (2018) discovered that an upbeat training atmosphere had a motivating effect on workers. An encouraging training setting has been shown to have a positive effect on worker productivity in another research by Tariq and Ali (2020). Based on the results of this research, it seems that the training setting has a substantial impact on both employee willingness to learn and performance on the job.

This study focuses on the training environment and trainee motivation, two factors that have been suggested in the literature as potentially contributing to the efficiency of training, even though other factors, such as participants, training material, organizations, and trainers, have been found to impact the positive results of training (Almakhadmah, I., et al., 2012). Similarly, Hasan and Chowdhury (2019) discovered that encouragement from superiors increased workers' willingness to participate in training. Leadership and supervisor support have been shown in these studies to have a significant role in developing an encouraging training environment and increasing workers' enthusiasm to learn. The term "training environment" is used to describe the ambiance in which an

individual receives instruction. The relevance of a positive training environment in improving the efficacy of training programs in Bangladesh's banks has been emphasized by a number of studies. A good training environment, as defined by Miah et al. (2018), is one that has well-designed training programs, sufficient training facilities, and competent trainers.

Uddin et al. (2017) discovered that how workers perceive their training environment affects their attitudes toward it. Their research shows that training success increases when workers have a positive outlook on the process of learning. Alam and Molla (2018) observed comparable results for the banks of Bangladesh, concluding that the training environment had a major impact on workers' training motivation. Managers were urged to foster an encouraging atmosphere in training sessions to increase workers' desire to improve themselves.

Motivation in training might come from inside an organization or from the outside world. The training motivation of workers in Bangladeshi banks has been the subject of several research. Hossain et al. (2016), for example, discovered that the perceived utility of training, supervisor support, and work satisfaction are significant determinants of training motivation among banking sector personnel. According to Kabir and Ferdousi's (2019) research, workers' desire to learn is greatly affected by their level of job satisfaction, the perceived value of training, and their perception of organizational support. To a similar extent, Rahman and Uddin (2019) discovered that commercial bank workers' training motivation is highly influenced by their perceptions of career advancement prospects, job security, and intrinsic motivation. In addition, they discovered that workers who are intrinsically motivated to learn had more positive attitudes about training and thus benefit more from it.

The degree to which participants are motivated to learn is important to the effectiveness of training initiatives. Multiple studies have looked at what motivates bank workers in Bangladesh to continue their education. According to research by Khanam and Rahman (2018), for instance, the degree to which workers value training is a major factor in how motivated they are to complete it. Rana et al. (2019) showed that job satisfaction and perceived organizational support were major factors in determining whether or not workers were motivated to learn on the job. The training motivation of workers may be greatly affected by the training environment, as Alam and Molla (2018) discovered. Employees are more likely to put in the effort necessary to learn if they believe their training will benefit them and their business.

Another research indicated that work-life balance was a major predictor of training motivation among workers (Bhuiyan & Hossain, 2018). Based on the findings of these research, it seems that intrinsic motivation, job autonomy, a supportive learning culture, and a healthy work-life balance are also critical to workers' desire to continue their education.

Training programs at Bangladesh's commercial banks might benefit from a more pleasant training environment and higher levels of training motivation, according to the available research. Employees' ability to learn is greatly enhanced when they are provided with a conducive training environment that includes well-designed training programs, sufficient training facilities, and qualified trainers. Employee training is improved when workers feel they have room to grow professionally, are certain of their employment, and are intrinsically motivated. These results have important ramifications for the development and delivery of training programs in Bangladesh's commercial banks.

2.11.2 Training Motivation and Training Effectiveness

Training programs are being more valued by banks in Bangladesh as a means of improving staff competence and retention. This review of the literature focuses on academic studies that examine the connection between training motivation and training efficacy in Bangladeshi banks. The term "training motivation" is used to describe the characteristics that encourage workers to take part in training and improve their learning results. On the other hand, we can say that a training program is effective if and only if it contributes to the overall performance of banks by catering to the specific educational demands of its personnel.

When it comes to training, Akter et al. (2019) state that the quality of training material, training delivery, and feedback methods have a major impact on training motivation and efficacy. Employees' motivation and learning outcomes improved as a result of their involvement in training programs, the research revealed.

Alam and Khatun (2018) discovered that training motivation and efficacy are strongly impacted by the training environment. The research found that workers' willingness to engage in training programs and improve their performance was significantly influenced by the quality of training facilities, trainers' experience, and the relevance of training programs.

Training motivation and efficacy were shown to be favorably impacted by work satisfaction, perceived organizational support, and leadership behavior in another research by Hossain and Islam (2020). It was stated by the authors that training is more successful when participants are happy with their jobs and get encouragement from their superiors.

Training needs assessment was proven to have a favorable impact on training motivation and efficacy by Kabir and Ferdousi (2019). The results showed that workers are more likely to be motivated and perform better after participating in training programs that are

tailored to their individual requirements as learners and to the unique issues they face on the job.

According to research by Khandaker and Ferdousi (2020), the atmosphere of training has a major impact on participants' commitment to and success in the course. Workers' incentive to participate in training events and put what they've learned to use on the job is bolstered, according to the authors, by a training environment that actively promotes learning, provides enough resources, and honors employees' efforts.

Training motivation and efficacy, as shown by Miah et al. (2018), is highly impacted by work satisfaction. Findings from the research show that training is more successful when people are happy in their employment and are more likely to participate in training and use what they learn on the job.

Rahman and Alam (2018) conducted another research and discovered that training assessment had a constructive impact on training motivation and efficacy. The authors suggested that by assessing the efficacy of training initiatives, commercial banks may fill in knowledge gaps, cater to the specific demands of their workforce, and increase workers' enthusiasm for participating in training and putting what they've learned into practice.

According to Rahman and Miah (2019), employee involvement has a major impact on both training motivation and efficacy. The research showed that training is more successful when individuals are emotionally invested in their work and driven to participate in training activities and use what they've learned on the job.

Perceived organizational support increases training motivation and efficiency, according to Rahman and Sultana (2019). It was hypothesized in the research that training would be more successful if workers were more driven to participate in training activities and more likely to apply what they learned to their jobs.

According to research by Rana and Azim (2020), training approaches have a major impact on trainee engagement and performance. Group discussions and role-playing were cited as examples of interactive and participatory training approaches that boost workers' enthusiasm to participate in training activities and increase learning results.

According to research by Sultana and Hossain (2021), a more empowered workforce has higher levels of training motivation and efficacy. According to the research, training is more successful when workers have more freedom and say in their work.

Researchers in Bangladesh discovered that employee motivation strongly influenced the success of training programs when Islam et al. (2019) looked at the relationship between employee motivation and training success in the banking industry. Career advancement chances, work happiness, and job security were all shown to favorably affect employees' willingness to engage in training.

It was also discovered by Islam et al. (2020), who studied the effect of perceived organizational support on employees' training motivation, that workers who felt their employers cared about their professional growth were more likely to take advantage of training opportunities.

Training programs were found to considerably increase workers' knowledge and abilities, as well as their job performance, in an evaluation conducted by Hossain et al. (2020) in the banking industry of Bangladesh. The research also discovered that the quality of training delivery and the training content's relevance and applicability had a beneficial impact on the efficacy of training programs. Researchers Sultana and Islam (2018) discovered that workers in the banking industry of Bangladesh who had gotten more training were more happy with their employment, suggesting that training programs might have a favorable effect on employees' job satisfaction.

Scholarship from Bangladesh's commercial banks lends credence to the idea that trainees' intrinsic drive has a direct bearing on their ability to learn. Bangladeshi banks might improve the efficiency of their training programs by creating a culture that encourages workers to invest in their own professional growth and feels safe in their jobs. Trainers also need to make sure their courses improve workers' knowledge, abilities, and productivity in the workplace by providing instruction that is both practical and engaging. Scholarly investigations of the Bangladeshi commercial banking sector have shown a correlation between trainees' intrinsic desire and the quality of their subsequent training. Commercial banks may improve the efficacy of their training programs by establishing a conducive learning environment that encourages workers to actively engage in training by addressing employee concerns about advancement possibilities and job security. Trainers also need to make sure that their courses improve their trainees' knowledge, abilities, and performance on the job by being both pertinent to the trainees' jobs and delivered efficiently.

Table 2.3: Factors Related to Training Motivation

(Based on some substantial Literature Review)

SL No	Authors	Factors	Description
1	Ahsan & Shahzad (2017)	Personal and Environmental Factors	Personal and environmental factors have significant impact on training motivation of bank employees.
2	Alam (2014)	Attitude, Perception and Learning	Attitude, perception and learning environment are important factors that influence the

		Environment	training motivation of bank employees.
3	Ali, Karmaker & Kibria (2017)	Personal Factors	Personal factors such as job satisfaction, career growth and organizational commitment have a positive impact on training motivation.
4	Al-Mamun & Hossain (2014)	Individual and Organizational Factors	Individual and organizational factors including job security, promotion, and recognition are crucial for training motivation.
5	Arafat & Islam (2019)	Personal and Organizational Factors	Personal and organizational factors have significant impact on the training motivation of bank employees.
6	Ferdous & Islam (2012)	Self-Efficacy, Attitude and Perceived Value	Self-efficacy, attitude and perceived value are important factors for training motivation of bank employees.
7	Ferdous & Islam (2013)	Personal and Organizational Factors	Personal and organizational factors such as job satisfaction, career development and work-life balance are important for training motivation.
8	Hasan & Khan (2015)	Personal and Organizational Factors	Personal and organizational factors including job security, reward and recognition have a positive impact on training motivation.
9	Islam & Ferdous (2012)	Personal and Organizational Factors	Personal and organizational factors including job satisfaction, career growth and work-life balance are crucial for training motivation.

10	Islam & Ferdous (2014)	Personal and Organizational Factors	Personal and organizational factors including career growth, job security and recognition are important for training motivation.
11	Islam, Sultana & Hasan (2019)	Personal and Environmental Factors	Personal and environmental factors such as job satisfaction, work-life balance and learning environment have significant impact on training motivation.
12	Jahan & Juyena (2014)	Personal and Organizational Factors	Personal and organizational factors including job security, career growth and promotion have a positive impact on training motivation.
13	Karim & Chowdhury (2014)	Individual and Organizational Factors	Individual and organizational factors including job security, reward and recognition have significant impact on training motivation.
14	Khatun et al. (2017)	Individual and Organizational Factors	Individual and organizational factors such as job satisfaction, career growth and work-life balance are crucial for training motivation.
15	Kibria & Mannan (2014)	Individual and Organizational Factors	Individual and organizational factors including job satisfaction, career growth and recognition are important for training motivation.
16	Mahmud et al. (2016)	Personal and Organizational Factors	Personal and organizational factors such as job satisfaction, career growth and recognition are important for training

			motivation.
17	Masud & Alam (2017)	Personal and Organizational Factors	Personal and organizational factors including job security, career growth and recognition have significant impact on training motivation.
18	Moula et al. (2017)	Personal and Environmental Factors	Personal and environmental factors such as work-life balance, learning environment and career growth have a positive impact on training motivation.

Source: Self-Created

2.12 Conceptual Model

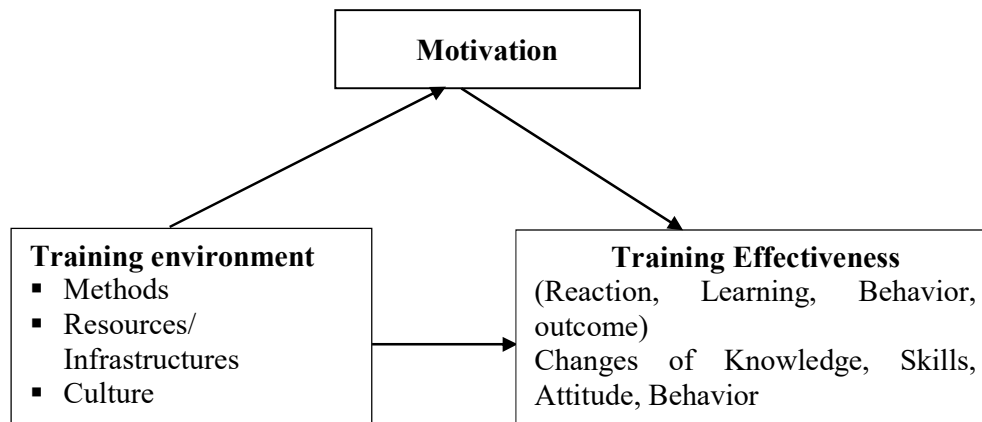


Figure 2.1: Conceptual model for measuring impact of training environment on training effectiveness

Source: The Author based on the literature review

2.13 Hypothesis Developments

Previous studies support this hypothesis. For instance, a study by Ahmed et al. (2019) found a positive relationship between training and development programs and employee performance in private banks in Bangladesh. Similarly, a study by Hossain and Islam

(2021) found that training programs positively impacted the operational efficiency of public banks in Bangladesh. Holton (2002) found training environment has direct impacts on training effectiveness.

H1: The organizational training environment has a direct impact on the training effectiveness in the banking industry of Bangladesh

H2: The organizational training environment has a direct impact on the training motivation of the employees in the banking industry of Bangladesh.

H3: The training motivation has a direct impact on the training effectiveness of the employees in the banking industry of Bangladesh.

H4: Training motivation mediates organizational training environment and Training effectiveness in the banking industry of Bangladesh.

Chapter Three

Research Methodology

3.0 Research Design

Research design is considered as a process in which idea is changed into a research project or plan that can be carried in practice by a researcher (Gorard, 2010). Research designs are also considered as procedures for collecting, analyzing, interpreting and reporting data in research studies (Creswell and Clark, 2011). Key aspect of the research design will be ensuring a representative sample of employees from Banking Industry (Hussain & Akhter, 2016). The use of surveys will allow for large-scale quantitative data collection on various aspects of training effectiveness (Creswell, 2014).

The research purpose is fulfilled through the research design. It is an arrangement of data collection and analysis of data in a systematic manner. The descriptive research design is followed to conduct the study wherein the sources of data will both primary and secondary. This study followed quantitative research methodology. Quantitative approach is generally focused on the deductive approach to examining theory, often using number or fact and therefore a positivist or natural science model, and an objects model. Quantitative methods are categorized by the use of numbers to present opinions or concepts (Amaratunga et al., 2002). The main approach of inquiry is testing theory or deducting theory (Perry et al., 1998). The hypo-deductive model consists of the a priori deduction of hypotheses from a theory or a conceptual framework and the testing of those hypotheses using numerical data and statistical analysis (Teddlie & Tashakkori, 2009). In quantitative research, descriptive statistics, chi square test, correlation analysis and SEM analysis have been incorporated in this study. The present study tries to understand the effectiveness of employees' training in the banking sector of Bangladesh. The research is

empirical in nature as the data have been collected with the help of questionnaires, which is a method of survey data collection.

3.1.1 Population

For any research study, identifying or decide the target population is one of the most important things. The target population of this study must be precisely defined. The population for this study will consist of employees in Banking Industry in Bangladesh who have participated in training programs within the past year (Alam & Hasan, 2020). The selected population should be representative of the larger banking industry in Bangladesh, and efforts should be made to minimize bias in sample selection (Morse, 2003). Description of target population generally involves translating a research problem into a detailed statement of whom or which should be comprised in and which or who should be excepted from the sample target population is defined as a specific group of people or objects for which the data can be gathered from observations made to develop required data structures and information. The first set of sampling designs is to define the study population. Since the study title is Organization Training Environment and Training Effectiveness: Mediating Role of Motivation, so all the employees of the different organizations are population. But this study considers only the banking sector as a sample frame, hence the working population of interest for this study is all bankers who are providing services in the banking industry in Bangladesh. As the banking sector provided formal training to the employees of the bank and performance measuring tools are available in the banking sectors, thus banking sector is suitable sample frame to conduct this study.

3.1.2 Sample Size

The study's main objective is to investigate whether retaining both experienced and key employees influences organizational performance in banks of Bangladesh. The sample has

been drawn from employees who have attended training programs in their organizations. The sample size has been determined using power analysis, and a convenience sampling technique has been used to ensure that the sample is representative of the population. Sample selection has been based on a simple random sampling technique to ensure adequate representation of different job positions within the banks (Azim & Ahmed, 2019). To ensure validity, the sample size has been calculated using established statistical formulas based on the population size and desired level of precision (Creswell, 2014). The sample should be large enough to allow for statistical comparisons between different subgroups, such as employees in different banks or different types of training programs (Velnampy & Arulrajah, 2017).

So, for the selection of sample size bankers who are providing services in Banking Industry has been selected conveniently as a sample from the available area to conform to the objective of the study.

For selecting sample size, this study used the following formula (Cochran, W.G., 1977):

$$\text{Sample size} = \frac{Z^2 pq}{\{e^2\}}$$

Z^2 = Standard error associated with the chosen level of confidence (1.96)

p = Estimated percent in the population

q = 1.00- p

e = Acceptable sample error

The representative sample size is 384.

As a sample, I have distributed 576 and received 434 data from four regions the country namely Dhaka, Chottogram, Rajshahi and Khulna and and 420 respondent's data has been finalized for analyzing after discarding 14 error response. This study followed simple random sampling (Non proportionate sampling). [But, trying to ensure representation of each sub group].

3.1.3 Sample Banks in this Study

I have taken 18 banks for my study from the schedule banks of Bangladesh which are given below:

- Total Banks 66: 61 Schedule and 5 non-scheduled banks
- Out of 61 schedule Banks: 6 state owned commercial Banks, 3 specialized Banks, 33 traditional private commercial banks, 10 sharia based commercial banks, 9 foreign commercial banks
- Foreign Banks excluded because of access restrictions and non-scheduled banks also not considered as they are function as like schedule banks.
- So, working case = 66 banks – 9 foreign banks – 5 non-scheduled banks = 52 Banks
- Sample case: 18 Banks from all categories (34.62% of working case and 27.27% of total case) [Previous research said 20% case is sufficient for representative sample] (Masud et al., 2017)

Table 3.1: Name of Banks

Category	No. of selected Banks	Sample Banks	Banks Name
Public	6	2 (33.00%)	1. Sonali Bank Ltd 2. Agrani Bank Ltd
Specialized	3	1 (33.00%)	1. Rajshahi Krishi Unnayan Bank
Private	43	15 (34.88%)	1. Bank Asia Limited 2. BRAC Bank Limited 3. Dutch Bangla Bank 4. Eastern Bank Limited 5. Bangladesh Commerce Bank Ltd 6. City Bank Ltd 7. Dhaka Bank Ltd 8. Modhumati Bank Limited 9. Mutual trust Bank Limited 10. National Bank Limited 11. Pubali Bank Limited 12. South East Bank Limited 13. Islami Bank Bangladesh Limited

			14. Social Islami Bank Limited 15. Shah Jalal Islami Bank Limited
Total	52	18 (34.62%)	
Traditional	42	15 (35.71%)	
Shariah Based	10	3 (30%)	
Total	52	18 (34.62%)	

Source: Self-created

Arguments for Chosen Banking Industry

There are currently 50 registered training institutes dedicated to the banking industry in Bangladesh. This information is based on data from the Bangladesh Bank's Financial Institutions Division as of October 2023

(https://www.bb.org.bd/en/index.php/about/dept_and_offices). No other industry (RMG, Sugar, Leather etc.) has specialized and organized training institutes.

1. Structured Training Environment:

- **Formalized training programs:** The banking industry is heavily regulated, requiring employees to undergo extensive training to meet compliance and professional standards. This leads to structured training programs covering various topics relevant to their roles. (Hasan & Islam, 2023)
- **Dedicated training facilities:** Many banks invest in dedicated training facilities equipped with resources and technology to facilitate effective learning. (Haque, 2022)
- **Experienced trainers:** Banks often hire experienced professionals or collaborate with external training providers to deliver high-quality training. (Khan & Hossain, 2021)

2. Training Effectiveness:

- **Improved job performance:** Studies have shown that employees who participate in training programs demonstrate improved job performance, leading to increased productivity and efficiency. (Ahmed & Rahman, 2020)
- **Enhanced knowledge and skills:** Training programs equip employees with the necessary knowledge and skills to perform their jobs effectively and adapt to new technologies and regulations. (Chowdhury & Islam, 2023)

3. Mediating Role of Motivation:

- **Enhanced motivation:** The structured training environment and effectiveness of training programs can serve as motivators for employees, leading to increased engagement, commitment, and job satisfaction. (Islam & Khan, 2021)
- **Positive impact on organizational culture:** A culture of learning and development fostered by effective training programs can create a more positive and supportive work environment, further motivating employees. (Karim & Ahmed, 2022)

3.1.4 Sampling Technique

Sample refers to a group of the population who can represent the total population of the study and make general inferences about the characteristics of the population based on the response of the sample (Sekaran and Bougie, 2016). Sampling techniques are broadly divided into two groups as probability sampling techniques and non-probability techniques. As mentioned earlier, the simple random sampling technique is established to be suitable for the present study. Simple random sampling (SRS) can play a crucial role in studying the link between organizational training environment, training effectiveness, and motivation in Bangladesh's banking sector. By selecting participants with equal

probability and minimizing bias, SRS ensures generalizable findings. This method helps assess the mediating role of motivation, where training environment influences motivation, which in turn impacts training effectiveness, as supported by relevant research (Ahmed et al., 2020). SRS offers valuable insights into this complex relationship, contributing to the development of effective training programs within the Bangladeshi banking industry.

Arguments for Using Simple Random Sampling

- 1. Unbiased Representation:** Simple random sampling (SRS) ensures an unbiased selection of participants from the target population. This minimizes the risk of selection bias, which can significantly distort research findings.
- 2. Generalizability:** By selecting a random sample, researchers can be more confident that the findings can be generalized to the larger population of bank employees in Bangladesh. This is crucial for informing policy decisions and developing effective training programs that cater to the broader workforce.
- 3. Statistical Analysis:** SRS allows researchers to use well-established statistical methods for data analysis and inference. This facilitates the calculation of accurate confidence intervals and estimates, strengthening the validity and reliability of the research findings.
- 4. Reduced Researcher Bias:** The random selection process minimizes the risk of researcher bias influencing the sample composition.
- 5. Promoting Equal Opportunity:** Using SRS ensures that all bank employees have an equal chance of being selected for the research study.

Sample (Respondents) Distribution

- 18 banks: 2 Public commercial; 1 Specialized, 12 Private commercial Banks (Traditional) and 3 Shariah based private commercial banks
- 4 old metropolitan cities (Dhaka, Chattragram, Rajshahi, Khulna)
- 2 branches in each city (Randomly) and finalization by access priority
- 4 employees in each branch including manager operations (Selected by branch operations manager)
- Total personal interview and Google link sent: $18 \times 4 \times 2 \times 4 = 576$

Table 3.2: Sample Distribution

Nationalized Commercial Banks (Traditional)		
S.N.	Name of the Bank	No. Respondents
1	Sonal Bank Ltd.	26
2	Agrani Bank Ltd.	24
Specialized Banks (Traditional)		
3	Bangladesh Krishi Bank/ Rajshahi Krishi Unnayan Bank	25
Private Commercial Banks (Traditional)		
4	Bank Asia Ltd	24
5	BRAC Bank	23
6	Dutch Bangla Bank	24
7	Eastern Bank	25
8	Bangladesh Commerce Bank Ltd	25
9	City Bank	24
10	Dhaka Bank	24
11	Uttara Bank Ltd.	24
12	Mutual trust Bank	22
13	National Bank	25
14	Pubali Bank	25

15	South East Bank	22
Private Commercial Banks (Shariah based)		
16	Islami Bank Bd Ltd.	26
17	Social Islami Bank Ltd.	24
18	Shajalal Islami Bank Ltd.	22
	Total Received	434
	Finally Used (14 missing data)	420

Source: Self-created

3.1.5 Sources of Data Collection

Primary and secondary data sources has been used to collect information about the factors and their impact on effectiveness of training in the banking sector of Bangladesh. This study has been conducted based on primary data. Primary data has been collected with the use of standardized measures with some modifications. Primary sources of data collection can include surveys, interviews, and focus group discussions (Kumar, 2019). A survey conducted involved the mailing of questionnaires and face-to-face interviews with bankers who are providing services in sampled banks. Surveys can be conducted among bank employees to collect data on their perception of the effectiveness of training programs (Ali & Ahmed, 2018). Secondary data sources included journals, magazines, newspaper, article and research databases has been reviewed to gain insight into the various aspects of employee training and its impact on organizational performance. Secondary sources of data collection can include company reports, training manuals, and academic literature (Alam & Shibly, 2019).

3.1.6.1 Primary Data

Structured questionnaires has been developed by using five points Likert scaling technique for collecting data from the respondents. Then pilot survey with executives and

experienced literate employees has been conducted. After the pilot survey, the final questionnaire has been finalized. Previous studies have used primary data collection methods to evaluate the effectiveness of training programs in banks in Bangladesh. For instance, a study by Ahmed et al. (2019) used a survey questionnaire to collect data on the impact of training and development programs on employee performance in private banks in Bangladesh. Similarly, a study by Hossain and Islam (2021) used surveys and interviews to collect data on the effectiveness of training programs in public banks in Bangladesh. The advantage of personal interviewing over other methods is that the researcher gets some other information pertaining to the respondent. Interviews with key personnel such as trainers, managers, and human resource personnel can provide valuable insights into the training programs and their effectiveness (Siddique & Qureshi, 2020). Sometimes if the respondent has any query/doubt, the researcher or interviewer can trace it. The finalized questionnaire has been mailed or to hand to the bankers who provide services to the banks from four areas, i.e., Dhaka, Chottogram, Rajshashi and Khulna.

3.1.4.2 Sources of Secondary data:

Secondary data means data that are already available at different sources. The secondary data investigation on the subject matter has been generally employed in previous studies, and it has been accomplished in both developed and developing economies. Previous studies have used secondary data collection methods to evaluate the effectiveness of training programs in banks in Bangladesh. For instance, a study by Rahman et al. (2018) used secondary data sources such as reports and articles to analyze the challenges faced by banks in implementing effective training programs in Bangladesh. Similarly, a study by Uddin et al. (2020) used secondary data sources such as academic articles and reports to identify best practices for improving the effectiveness of training programs in banks in

Bangladesh. The information has been collected from various literature like Books, Journals, Magazines, Reports News, Papers, websites, and unpublished research work on business management will also used as secondary data sources. Company reports can provide information on the training programs offered by the banks and their outcomes (Rahman et al., 2018).

3.1.5 Data Analysis Method

Data analysis is considered a significant phase in research because of the potentiality of prejudice a well-designed investigation (Kumar et al., 2006). Literature evidenced that the rationale of the statistical procedures is to support establishing the reliability of the theoretical model to estimate the extent to which the independent variables used seem to be influencing the dependent variable (Coorley et al., 2011). To detect the effectiveness of employees' training in the banking sector of Bangladesh: a mediating role of training motivation, different statistical data analysis tools and techniques has been used to explore and prove the empirical relationship between two or more variables. The researcher had used two different styles of collecting primary data. The questionnaire has been mailed to respondents located distantly, Google sheet (the datasheet which is equivalent to MS Excel is prepared for the responses). The same Google sheet has been used to SPSS, and various analyses and tests has been conducted on the same. The physical form of the questionnaire has been entered into MS Excel and then converted into an SPSS sheet. Moreover, the present study unified descriptive statistics to test the general trend and inferential statistics to analyze the data. **Also, a reliability analysis has been done to standardize the questionnaire. Reliability has been assessed through Cronbach's alpha. Validity has been checked through face validity and construct validity. Construct validity has been established through the item to total correlation and exploratory factor**

analysis. Besides, SPSS has been used for tests like Frequency Distribution, Graphs and Charts, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and ANOVA. In addition, Smart PLS has been used for SEM analysis, which helps estimate, specify, and assess to demonstrate hypothesized relationships among various variables.

This research work is done by using Statistical Package for Social Science (SPSS 23) is used for data entry, encoding, and editing data. The study used Statistical Package for Social Science (SPSS 23) for descriptive statistics, factor analysis, and Correlation while Smart PLS 4.0 used for SEM Analysis.

Chapter Four

Overview of Banking Industry in Bangladesh

4.1 Introduction

Being an emerging economy, Bangladesh has emphasized the development of its financial sector to foster economic growth. Over the past three decades, the country has experienced remarkable growth in the financial industry. Notably, the financial sector in Bangladesh has gone beyond conventional growth by promoting financial inclusion for the extremely impoverished in rural areas. While this has contributed to an improved economic condition, it has also created an environment where a segment of the affluent has amassed substantial wealth through fraudulent activities, particularly targeting state-owned banks.

According to a report by the Asian Development Bank in 2018, technology plays a crucial role in maximizing the positive impact of migration on home countries. The use of Information Technology in remittance flows has significantly transformed the remittance services offered by banks. In addition to traditional branch networks, numerous banks leverage online platforms, mobile networks, and money transfer organizations to expedite the channeling of funds to their customers. Alongside the adoption of ICT tools and mobile technologies, banks have expanded remittance services by collaborating with each other's networks and branches more extensively.

In Bangladesh, most commercial banks cater to a large population of migrants working abroad, collecting remittances from around the world. These banks efficiently distribute these funds to their beneficiaries across the country through various banking channels. Among the diverse range of commercial banks, Private Commercial Banks (PCBs) lead in collecting the highest amount of remittances, followed by State-owned Commercial Banks (SOCBs), Foreign Commercial Banks (FCBs), and Specialized Banks (SB).

4.2 Overview of the Banks

Various categories of customers withdraw remittances from different bank branches, a phenomenon well-documented in a study by Leeds (1992). The research revealed that approximately 40 percent of customers switched banks due to unsatisfactory services. The rapid economic growth and global development have ushered in new activities, opening doors for all business organizations. However, the globalization trend has intensified competition, impacting the banking sector significantly.

Imagine watching a rope-balancing act on the street, in a circus, or on television – it appears challenging, leaving one curious about the performers' ability. Similarly, in our fast-paced lives, we unconsciously engage in a similar balancing act between work and personal life. Traditional work for an employee used to fit neatly within set hours, but the current 24/7 economy extends work beyond the norm. This leaves individuals with minimal time to balance their professional and family lives.

Moreover, signs indicate that job performance expectations have increased since the 1990s, placing both employers and employees under pressure to enhance the quality of work life. Work-life balance is becoming increasingly relevant, even in traditionally conservative countries like India, following the software boom and the entry of multinational companies. The notion of fixed working hours with rest afterward is becoming a myth.

In India, the financial industry, like any other service organization, is on a mission to deliver quality service. The banking sector has transformed rapidly over the last decade, evolving from transactional and customer service-focused to an intensely competitive environment prioritizing revenue generation. Long-time banking employees are growing disillusioned, often resisting adapting to new expectations, leading to decreased morale and revenue.

Due to the close ties between staff and customers, losing employees can result in the loss of valuable client connections. Challenges such as increased job competition, complexities in personal lives, changing socio-cultural environments, eroding family systems, and an aging workforce all contribute to the struggle for work-life balance. The retail banking industry is particularly concerned about retaining employees at all levels, from tellers to administrators to customer service representatives, as competition actively seeks to recruit them away. In the context of this global scenario, Bangladesh, a South Asian developing country, currently holds the 135th position in the Human Development Index (UNDP, 2019).

4.3 No of Employees in Banking Sector

According to the CEIC global database, the no of employees working in the bank industry is emerging. The increase of employees showed a positive site. Hence, the proportion of the bank and the no. of employees is relatively poor. In Bangladesh bank 2019, and 2018 year the number increased by 15%, 6369.000 person and 5741.000 person respectively. The no of foreign banks employee number is 3935.000 in 2018 and in 2017, the number was 4003. The number decreased due to several reason. The large number of bank employees belong to specialized banks. 2018 the no was 12470.000 person and in 2017 12285. The no of employee is calculated through yearly based. Excluding Bangladesh bank, the total no of employees in 2018 and 2017 was 180037.000 person to 175027.000 respectively.

Table-4.1: Employees in the Banking Sector of Bangladesh

Bank Category	Year	No. of Employee
Bangladesh Bank	2019	6369.000
	2018	5741.000
Foreign Banks	2018	3935.000
	2017	4003.000
Specialized Banks	2018	12470.000
	2017	12285.000
Total PCBs and others excludes BB	2018	180037.000
	2017	175027.000

Source: CEIC, Global Data, 2019

4.4 No of Employees Highest to Lowest since June 1973 to 2019

Bangladesh Bank information is refreshed yearly, averaging 5,524.000 Person from Jun 1973 to 2019, with 47 perceptions. The information arrived at an untouched high of 6,497.000 Person in 1993 and a record low of 2,562.000 Person in 1973. Outside Banks information is refreshed yearly, averaging 1,119.000 Person from Jun 1973 to 2018, with 46 perceptions. The information arrived at a record-breaking high of 4,003.000 Person in 2017 and a record low of 575.000 Person in 1975. Specialized Banks information is refreshed yearly, averaging 15,300.500 Person from Jun 1973 to 2018, with 46 perceptions. The information arrived at an unsurpassed high of 16,871.000 Person in 1994 and a record low of 2,821.000 Person in 1973. Complete, Excludes Bangladesh Bank information is refreshed yearly, averaging 102,011.500 Person from Jun 1973 to 2018,

with 46 perceptions. The information arrived at an unequalled high of 180,037.000 Person in 2018 and a record low of 19,777.000 Person in 1973.

Table-4.2: No of Employees Highest to Lowest since June 1973 to 2019

Bank Category	Jun 1973 - 2019	Average	High	Low	Observation
Bangladesh Bank	„	5524.000	6497.000	2562.000	47
Foreign Banks	„	1119.000	4003.000	575.000	46
Specialized Banks	„	15300.500	16871.000	2821.000	46
Total, Excludes BB	„	102011.500	180037.000	19777.000	46

Source: Bangladesh Bank 2021

4.5 Description of the Sample Banks:

Sonali Bank Ltd:

Sonali Bank Limited is a state-owned commercial bank in Bangladesh. It is the largest bank of the country. A fully state-owned enterprise, the bank has been discharging its nation-building responsibilities by understanding government entrusted different socioeconomic schemes as well as money market activities, covering all spheres of the economy. Sonali Bank, the largest commercial bank in the country, was established under Bangladesh Banks (Nationalization) Order 1972 (President's Order No. 26 of 1972). By taking over branches of Former National Bank of Pakistan, Bank of Bhawalpur Limited and Premier Bank of Pakistan were two private banks performing class banking over the country in that period and National Bank of Pakistan was Government supported bank

which was established to finance the jute sector in East Pakistan in the early period of Pakistan. After the birth of Bangladesh on 16th December 1971, newly formed Sonali Bank for mass banking got special facilities from the government to work on behalf of Bangladesh Bank in those areas where Bangladesh Bank is not available. With the increase of responsibility and by virtue of performance within a few years, it becomes the largest commercial Bank of the country with 1211 branches. Presently, it's authorized and paid up capital is Tk. 10 billion and Tk. 9 billion respectively. The bank's reserve funds were Tk. 60 million in 1979 and Tk. 2.050 billion on 30 June 2000.

Agrani Bank Ltd.:

Agrani Bank emerged as a nationalized commercial bank in 1972 immediately after the emergence of Bangladesh as an independent state by combining two Pakistani banks Commerce bank and Habib bank. After that it came into being as a Public Limited Company on May 17, 2007.

Agrani Bank Limited started functioning as a going concern basis through a Vendors Agreement signed between the ministry of finance, Government of the People's Republic of Bangladesh on behalf of the former Agrani Bank and the Board of Directors of Agrani Bank Limited on November 15, 2007 with retrospective effect from 01 July, 2007. Bangladesh inherited its banking structure from the British regime and had 49 banks and other financial institutions before the Partition of India in 1947. The Dhaka Bank established in 1806 was the first commercial bank in the Bangladesh region of British India. Bengal Bank, the first British-Patronized modern bank established in India in 1784, had opened its two branches in 1873 in Sirajganj and Chittagong of Bangladesh region. Later in 1862, the Bengal Bank Purchased the Dhaka Bank and opened its first branch in Dhaka in the same year by reconstituting and merging the Dhaka Bank. Thereafter,

another branch of Bengal Bank was opened in Chandpur in 1900. A number of other branches of Bengal Bank were opened in this region and some branches had been closed in Course of time. There were six other branches of Bengal Bank in operation in the territory of Bangladesh until the Partition of British-India in 1947 and these branches were at Chittagong (1906), Mymensing (1922), Rangpur (1923), Chandpur (1924), and Narayanganj (1926).

Following the emergence of Pakistan in 1947, Stat Bank of Pakistan, the Central Bank of the country, came into being in July 1948. Later, the National bank of Pakistan, a strong commercial bank was set up in 1949. In all, 36 scheduled commercial banks were in operation in the whole Pakistan until 1971. Pakistanis owned most of these banks and only three of them namely, National Bank of Pakistan, Habib Bank Ltd. and the Australasia Bank Ltd, had one branch of each in East Pakistan in 1949. During 1950-58, there other Pakistani-owned banks, Premier Bank Ltd., Bank of Bahawalpur Ltd. and Muslim Commercial Bank, had opened their branch in East Pakistan. Four Pakistan-owned banks, the United Bank Ltd., Union Bank Ltd., Standard Bank Ltd. and the commerce Bank Ltd. Conducted banking business in the Province during 1959-1965. But all of them Had their headquarters in west Pakistan. East Pakistan had only two banks Owned by local business groups white headquarters in Dhaka. These were the Eastern Mercantile Bank Ltd. (Presently Pubali Bank Ltd.) And Eastern Banking Corporation Ltd. (Presently UttaraBank Ltd.) Established in 1959 and 1965 respectively.

Bangladesh Krishi Bank:

It is a 100% government owned specialized Bank in Bangladesh. “Krishi” means Agriculture. Since its inception Bangladesh Krishi Bank is financing in agricultural sector remarkably. It also performs commercial banking. People working abroad can easily send

money through Taka Drawing Arrangement. The main occupation of the people of Bangladesh is Agriculture. About 85% of the population depends on agriculture which contributes a significant portion to GDP. Bangladesh Krishi Bank has been established under the Bangladesh Krishi Bank order 1973 (President's Order No 27 of 1973). BKB is a Banking Company under the Banking Company Act-1991. Its Head Office is located at Krishi Bank Bhaban, 83-85 Motijheel Commercial Area, Dhaka-1000, Bangladesh. The main target of BKB is to provide credit facilities to the farmers for the development of agriculture. The Bank is guided in accordance with the policies and principles of the Government of the Peoples Republic of Bangladesh. BKB has an authorized capital of Tk. 15,000 Million (Taka Fifteen thousand Million) only and paid up capital of Tk. 9,000 Million (Taka Nine thousand Million) only which is fully paid by the Government. The Bank started commercial functioning since 1977 to generate more loan able fund from the idle rural and urban savings and invest them. The Bank operates its function through its 987 branches except Rajshahi Division. It has 16 foreign exchange (Authorized dealer) branches. In the field level the Bank has 9 Divisional, 29 Chief Regional and 24 Regional offices for close supervision of the branch activities. It has also 63 field level audit offices of which 9 at Divisional and 54 at Regional levels & it has 7 corporate branches in Khulna, Chittagong, Agrabad, Sylhet, Karwan Bazar, Banani, Narayanganj. In the Head Office the Bank has 4 Divisions headed by General Managers, 37 Departments and a Training Institute headed by Deputy General Managers. Local Principal Office of BKB is headed by a General Manager. The existing strength of Bank's manpower is 10444 against the approved strength of 15442 as on 30 June, 2015. The Bank has a Board of director comprising of 11 members. The Board is headed by the Chairman. The Board Chairman is generally an experienced professional/ex-professional who has wide acceptability and rapport. The Directors represent both public and private sectors and are appointed by the

Government. The Managing Director is the Chief Executive of the Bank. He is appointed by the Government. The Bank has two posts of Deputy Managing Directors and they are appointed by the Government. The Bank has 14 posts of General Managers. They are also appointed by the Government. The characteristics and the evolution of the agricultural sector around the world are diverse and finance is a key issue in the evolution of the agricultural sector. Agriculture is a key sector of the economy in many developing countries. Strengthening this sector requires, amongst others, better accessibility to financial services. Majority of people in developing countries live in rural areas and are involved in agriculture activities. In these countries, agriculture is the pillar of the economy and the other sectors of activity such as industry, commerce, and public and private services largely depend on it. Agriculture first provides for families subsistence needs. Any surplus generated provides cash income to cover other essential needs. The surplus is sold in the market to meet domestic demand for food crops. Cash crops such as cotton, peanuts, coffee, tea, jute, tobacco, vanilla and so on are mainly aimed at export markets. Raising livestock such as poultry, goats, pigs and sheep whether for meat, milk, eggs, leather or as draft animals or for religious or cultural rituals is also a major agricultural activity. Exported agricultural products represent a major source of foreign currency for several countries. Jobs in the public sector and jobs in commerce and other services are also largely dependent on the primary sector. In Mali, for example, the cotton sector contributes significantly to export revenue, employs nearly 3.5 million individuals, and generates considerable income in rural areas which has made possible investment in the physical and social infrastructure. Despite this major contribution from the agricultural sector to the economy, the rural sector in developing countries only has modest means to fulfill its task. Agricultural finance should be integrated as much as possible into an overall development approach based on support for agricultural production, the marketing

of agricultural products, improvement in management capacity, protection of the environment and risk management. The major occupation of the people of Bangladesh is "Krishi". Krishi is a Bengali word which means "Agriculture". About 85% of the population depends directly or two specialized banks –namely: Bangladesh Krishi Bank (BKB) and Rajshahi Krishi Unnayan Bank (RAKUB).

Bank Asia Ltd:

It begins with a simple thought. Bank Asia Ltd was founded in 1999 by a group of accomplished business people with a solid reputation in the community. The Bank's executive team is managed by veteran bankers with decades of expertise in both domestic and foreign markets. A collection of specialists, many of whom have experience in the worldwide market, assist the top management team. It made history when it acquired the business activities of the Bank of Nova Scotia in Dhaka, the first of its kind in Bangladeshi banking history. It duplicated its success by acquiring Muslim Commercial Bank Ltd (MCB), a well-known Pakistani Bank Bangladesh ,s operations. In the year 2003, the Bank made headlines once again when its Initial Public Offering of shares was oversubscribed by 55 times, setting a new record in Bangladesh's capital market history. Over the years, asset and liability growth has been phenomenal. Bank Asia has been engaged in the local money market as well as the international currency market without putting the bank in any risky situations. The Bank's holdings of Treasury Bills and other securities increased significantly, presenting potential for revenue growth in the context of a progressive interest rate drop. Bank Asia Limited began operations with the goal of providing customers with modern and innovative banking products and services at a reasonable cost. The bank's commitment is to deliver modern, value-added banking services to all segments of society while maintaining the highest standards possible in a

globalized world, using technology breakthroughs. Bank Asia Limited has been a significant promoter of financial inclusion in Bangladesh, bringing banking services to the country's most remote areas through the pioneering of "Agent Banking" services in Bangladesh in 2014. Since then, it's been a wonderful narrative of financial inclusion in Bangladesh's rural communities, with over 3500 shops and 3 million users. With the goal of creating a poverty-free Bangladesh, Bank Asia hopes to open a bank account for every able individual in the country, regardless of socioeconomic status, by expanding the Agent Banking Network to include a financial kiosk in every hamlet. By modernizing traditional banking with the use of modern technology, we also hope to build Bangladesh's first ever Digital Bank for the next generation.

BRAC Bank Ltd.:

It started its journey in 2001. Bangladesh is a small country with large population. To serve these large population there needed many small and medium enterprises. The founders of BRAC Bank Limited saw this and for that reason this bank focused all their efforts on SME banking; as it helps to create employment and also improve the economic condition of a country. BRAC Bank is a performance-driven organization. It is the member of Global Alliance for Banking on Values (GABV) from Bangladesh. This global alliance has 46 financial institutions under its wings and operating in counties across Asia, Africa, Australia, Latin America, North America and Europe. It is currently serving 41 million customers, has an estimated combined asset of USD127 billion, forty-eight thousand co-workers. BRAC Bank shares 3P philosophy -People, planet and profit. Today, the bank has 186 branches,16 premium banking lounges,447 ATMs,90 CDMs and 457 SME unit offices across country. BRAC Bank with its 6,500 employees caters to more

than 1500000 customers through its diversified SME, Retail and wholesale banking solutions.

For the apprehension and nonstop lack of public area, the general public authority of Bangladesh modified its association for privatizing and consequently diverse banks have been dispatched in non-public areas.

Dutch Bangla Bank Limited

DBBL is one of the maximum pro and riding commercial enterprise financial institutions in Bangladesh. DBBL successfully played banking physical games for around 26 years. Set up in 1993 Dutch Bangla Bank Limited has a dream of showing normal banking right into a pioneer banking basis of the USA and making contributions crucial to the expanding issue of the general public economy. Dutch Bangla Bank Limited installation below the Bank agencies Act, 1997. There are a maximum fifteen supporters related to making maximum be DBBL and those count on are the primary commercial enterprise man or woman and education industrialists of Bangladesh, who have stakes in one-of-a-kind association of public economy. From 1998 DBBL has, due to the fact, had the choice to install the possible largest corporation of 167 branches as of December 2017. Dutch Bangla Bank is managed with the aid of using a collection of effective development for experts. They set up and bring a weather of agreement. In order for that energizes and spurs maximum all anyone with inside the Bank to cooperate for accomplishment the general desires all lessons of the Bank. A promise to the greater and make clear in assistance is the economic signal in their personality.

Eastern Bank Ltd.:

Eastern Bank Limited (EBL) is one of the modern, fully online and technologically superior private commercial Banks in Bangladesh. Eastern Bank markets a wide range of depository, loan & card products. These products include different types of Savings &

Current Accounts, Personal Loans, Auto Loan, Debit Card, Pre-paid Cards, Internet Banking, Treasury, Syndication, Corporate Banking and SME Banking services through a network of branches & centers countrywide. Eastern Bank has its presence in major cities/towns of the country including Dhaka, Chittagong, Sylhet, Khulna and Rajshahi. Tracing its origin back to 1992, EBL is serving the individual and corporate clientele alike with remarkable success offering innovative banking services since then. At present, the bank has 34 branches throughout the country with about 1300 employees. The emergence of Eastern Bank Limited in the private sector is an important event in the banking industry of Bangladesh. Eastern Bank Limited was formed on August 08, 1992 and commenced its business as a scheduled bank with effect from August 16, 1992. EBL started its operation with one Head Office, two branches one in Dhaka and the other one in Chittagong. Its shares are listed with Dhaka and Chittagong Stock Exchange(s) Limited and are being quoted in the market regularly.

One of the objectives behind creation of this new bank was to give effect to the bank of Credit and Commerce International (Overseas) Limited in Bangladesh (Reconstruction) Scheme, 1992 framed by the Bangladesh Bank under section 77(4) of the Bank Company Act. EBL is listed in the Dhaka Stock Exchange Limited and Chittagong Stock Exchange Limited. Currently the bank has 34 branches, 26 own ATMs, 65(91-96) shared Q-cash ATMs (excluding ours) and 5 Bills pay machines across the country. EBL also has 68, 772 Debit Cards (first of its kind in Bangladesh), 1,228 Cool Cards and 5,845 Lifestyle Cards. The Bank has a network of 34 branches on December 31, 2008.

Bangladesh Commerce Bank Ltd. (BCBL):

It is well-known organization. But it was not established in one day. In previous establishment of BCBL it was the Bangladesh commerce and investment limited. It was established in 1986 on 27th January. That time it was the non-banking financial

organization. Their waged capital was 300 million and Tk 50 million. In banking business BCBL combined in Bangladesh 1 June 1998. Its ongoing banking process in 1999 on 16th September. And that time waged up capital 2000 million and TK 920 million correspondingly. BCBL 52% shares holders are Bangladesh Government. BCIL depositors Contributed 520 million while banks waged up capital 300 million. Under the administration of Bangladesh BANK Financial organization, they contributed 100 million. BCIL was established on 1986 in 27 January. April 1992 it continues their business. In that year Bangladesh Bank Suspended their process for the liquidity calamity. For that reason, the investors, company suffered many problems and the employees are became unemployed. After that reason the company's employee and the investors were try to save the company. And the depositors were demanded their money came back. Then Bangladesh Government known BCBL and they destroy the BCIL. IN 1998 on 8 th February known to BCBL and the board of Directors were 10members. BCIL 24 Branches were secure by way of complete BCBL branches. First importance of the bank in 1999 and 2000 was to recover the past credits of BCIL. BCBL suffered victims in 1999 and 2000. That time they were not intelligent to recover necessary requirements for personal loans. Investment of the BCBL has better from TK 20 million in 1999. In 2000 its increase 95 million, Treasury bills of government. That Short time its reality in the original established of the bank. After that 9-members were achieved as Board of Directors designated by the government again. Today BCBL takes 51 branches across the whole country.

City Bank Ltd.

Since 1983, The City Bank Limited (CBL), a private commercial bank, has been doing business all over Bangladesh. Twelve of the most important and successful businesses in

the country put up 1.75 billion taka to start it up. It was set up with the good aim of making the banking and financial management sectors better.

CBL is different from traditional decentralized banks because it uses a centralized system and gives different types of customer different services and treatment. It has five different parts that make it work: the Business Unit, the Support Unit, the Risk Unit, the Branch Ranking and the Operation Unit. These units are controlled vertically from the head office. This lets The City Bank Limited to provide strong service delivery and a smart IT backbone, which customers can use as a platform for online banking in real time.

The first branch of the bank, B. B. Avenue Branch, opened on March 28, 1983, in Dhaka. About 13 businessmen in the area saw the need for a bank and took the chance to make it happen. CBL has grown from its original capital of Taka 3.4 crore to a solid Taka 2,311.7 core in capital and reserves. It has 130 branches all over the country, including 99 online branches, 1 full-fledged Islamic banking office, 1 SME service center, and 11 SME branches. Also, CBL has its own 369 ATMs and has agreements with partner banks for another 1150 ATMs. With these branches and ATMs, the bank can give its customers easy access to both standard and alternative delivery points.

CBL keeps up with changes in technology and offers services like SMS banking, online banking, and a customer call center. This makes it easier for customers to use banking services and gives them more ways to do so. The bank has also added a number of services. It was the first bank in Bangladesh to offer credit cards with limits in both local and foreign currency, and it is the first bank to offer Visa debit cards. It has also given out gold cards and American Express credit cards.

As the local owner of the brand, CBL is in charge of everything that goes along with giving out new credit cards. This includes charge authorizations, bills and accounting, credit management, customer service, and marketing of the cards in Bangladesh. The bank's credit cards and gold cards can be used anywhere in the world and are accepted by millions of customers there and at home. In the American Express Selects program, card members in Bangladesh get special perks and can save a lot of money on shopping and eating at certain places. CBL is proud of its personalized and friendly customer service. It uses the CRP model (Customized Service Excellence Model), which focuses on making sure customers are happy by setting benchmarks for readiness level, staff attitude, behavior, accuracy and timeliness.

Dhaka Bank Ltd.:

Since 1983, The City Bank Limited (CBL), a private commercial bank, has been doing business all over Bangladesh. Twelve of the most important and successful businesses in the country put up 1.75 billion taka to start it up. It was set up with the good aim of making the banking and financial management sectors better.

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Modhumati Bank Ltd.

Modhumoti Bank Limited is one of the fastest-developing fourth-era non-public business Financial institution of the country, a scheduled financial institution integrated in Bangladesh as a Public restrained organization restricted through stocks beneath Neath the Companies Act 1994 in Addition to the financial institution groups Act 1991. (Modhumoti Bank Ltd.,) The financial Institution began out operation on 19 September 2013 focusing to be answerable for banks and Make a contribution all sections. Modhumoti financial institution unveiled its plans in 2020 that They pay unique interest to turning into a financial institution for small center corporation in rural Regions through breaking barriers. MMBL gives limitless monetary fine services and products and it's additionally turning into an imperative a part of the community. This financial institution Promotes others to head in advance for nice adjustments and enhance the lives of human's round with the aid of using offering shareholders the best degree of stability, honesty, reliability, and Excellent of offerings thru training trendy concepts according with the suggestions through Bangladesh financial institution. (Modhumoti Bank Ltd., n.d.) At MMBL, unique provide to us Precedence clients. As Priority Bank of Modhumoti Bank is a top rate financial institution, distinctive symbols designed to provide their customers tremendous banking, monetary advice, and funding support. Special interest may be paid to precedence banking clients at a tremendous stage of service.

Mutual trust Bank Ltd.:

A third-generation private commercial bank with its headquarters in Dhaka, Bangladesh, Mutual Trust Bank Ltd. (MTB) was recognized as the Best Financial Institution of 2014 at the DHL-Daily Star Business Awards 2015. On September 29, 1999, Mutual Trust Bank LTD was established as a public company limited by shares under the Companies Act of 1994 with an authorized capital of TK 38,00,000,000 divided into 38,000 ordinary shares

at TK 100 each. The company does all types of banking business. On the same day, the Company received its Certificate for the Start of Business. On October 5, 1999, Bangladesh Bank gave it a license under the Banking Companies Act of 1991, and on October 24, 1999, it began operating as a bank. The firm began operating as a bank by the terms of its memorandum of association and with a license granted by Bangladesh Bank in accordance Act of 1991. This gave it the right to engage in the following banking activities. The first-ever "SME Bank of the Year" and "Women Entrepreneurs' Friendly Bank of the Year" awards were previously given to MTB by Bangladesh Bank and SME Foundation. The Institute of Chartered Accountants of Bangladesh has recognized MTB as having the third-best presented annual report in the Private Banks category. MTB wants to be known as a cutting-edge, customer-focused business and one of the most admired banks in the country. MTB has 200 Agent Banking Centers, 119 main branches, and 33 sub-branches.

National Bank Limited

National Bank Limited has an effective past, a great current, a visionary upcoming and projects and activities in the network. Founded as Bangladesh's first fully commercial private bank, NBL has grown-up over time to become the chief private sector bank, which has faced many tensions and difficulties. Board members are the country's leading original and industrial areas. In order to keep up with the times, meet national and global financial activities and provide all modern facilities, NBL as a monetary institution has computerized all its divisions with computer networks in line with the uncertain commercial appeal of the period. In addition, given its fourth upcoming, the bank's substructure is being rebuilt. The opportunities of all programs of entrepreneurs, commercial people, and the universal public are much developed from NBL. National Bank Limited is the primary and leading private sector marketable bank in Bangladesh

wholly owned by Bangladeshi businesspersons. The bank started processes in 1983, but the first branch in 48, Dilkush commercial district, Dhaka, ongoing processes on March 23, 1983. NBL currently operates through its 192 divisions and 36 small and medium-sized initiatives located all over the country. The bank had a strong focus on foreign dealings from the outset and processed an important number of remittances from abroad to the country.

Pubali Bank Ltd

The Bank was initially emerged in the Banking scenario of the then East Pakistan as Eastern Mercantile Bank Limited at the initiative of some Bangle entrepreneurs in the year 1959 under Bank Companies Act 1913 for providing credit to the Bangle entrepreneurs who had limited access to the credit in those days from other financial institutions. After independence of Bangladesh in 1972 this Bank was nationalized as per policy of the Government and renamed as Pubali Bank. Subsequently due to changed circumstances this Bank was denationalized in the year 1983 as a private bank and renamed as Pubali Bank Limited. Since inception this Bank has been playing a vital role in socio-economic, industrial and agricultural development as well as in the overall economic development of the country through savings mobilization and investment of funds. At Present, Pubali Bank is the largest private commercial bank having 473 branches and it has the largest real time centralized online banking network. It provides mass banking services to the customers through its branch network all over the country. During the last 5 years the growth rate of bank's earnings is more than 25% on average.

Southeast Bank Limited

Southeast bank Limited is a scheduled commercial bank in the private sector establishes under the ambit of Bank Company Act, 1991 and incorporation as a public limited company under Company Act, 1994 on March 12, 1995. During this short span of time the

Bank is successful in positioning itself as a progressive and dynamic financial institution in the country. The bank achieved the certificate of commencement of business by Registrar of Joint Stock Companies and firms on the date of its incorporation and started its operations under its private sector. Bangladesh Bank issued banking License to the bank on March 25, 1995. Mr. M. Saifur Rahman, former finance minister of Bangladesh inaugurated the foremost branch of the bank at 1, Dilkusha commercial Area, Dhaka on 25th of the same year. In view of above, the bank within a period of 18 years of its operation achieved a remarkable success and met up capital adequacy requirement of Bangladesh Bank. In present the Bank has 100 branches which they are leading very successfully all over Bangladesh. Southeast Bank was established by leading business personalities and eminent industrialists of the country with stakes in various segments of the national economy. They established the Bank with a vision to bring efficient and professional banking service to the people and the business community of Bangladesh to help the national economy grow. The incumbent Chairman of the Bank is Mr. Alamgir Kabir, FCA, a professional Chartered Accountant. The Bank's Managing Director is Mr. Shahid Hossain, a young and eminent banker of the country with 30 years. The Bank's operations are built upon unequivocal emphasis on effective corporate governance. The objective is to create, promote and build long-term company value. The Bank's first and the highest priority is to provide effective services and maximum satisfaction to the customers. The ethos of harmony and co-operation is widely practiced in the Bank. We take pride in the fact that the public and private face of the Bank is one and identical. We believe that transparency in decision-making, monitoring mechanism and full disclosure to shareholders and regulatory authorities are essential aspects of Bank's corporate governance and that they create an intense pressure to rationalize Bank's services and search for new competitive advantages. We work ceaselessly within these parameters A

team of efficient professionals manages the Bank. They create and generate an environment of trust and discipline that encourages everybody in the Bank to work together for achieving the objectives of the Bank. The culture of maintaining congenial work-environment in the Bank has further enabled to benchmark themselves better against management expectations. A commitment to quality and excellence in service is the hallmark of their identity. In its arduous journey since, Southeast Bank has succeeded in realizing the dreams of those who established it. Today it is one of the country's leading banks in the private sector contributing significantly to the national economy. Southeast Bank has become a synonym of quality banking services and products. It has a diverse array of products and services tailored carefully to cater to the needs of all segments of customers.

Islami Bank Bangladesh Limited

In the late seventies and early eighties, Muslim countries were awoken by the emergence of Islami Bank which provided interest free banking facilities. There are currently more than 300 interest free institutions all over the world. Islami Bank now a days not only operate in almost all Muslim countries but have extended their wings to the western world to serve both Muslim and non-Muslim customers. In case of Islami Banking, the establishment of Mitghamar Local Savings Bank in 1963 is said to be a milestone for modern Islami Banking. The history of Islami Banking can nevertheless be traced back to the birth of Islam. In 1974, Bangladesh signed the Charter of Islamic Development Bank and committed itself to reorganise its economic and financial system as per Islamic Shariah (legal framework of Islamic Ideology). In 1978, Bangladesh recommended in Islamic Foreign Minister Conference in Senegal towards systematic efforts to Islamic Banking. In 1980, Foreign Minister Conference in Pakistan where Bangladesh Foreign Minister Prof. Shamsul Hoq, proposed for taking steps for Islamic Banking. Further,

Bangladesh Bank sent representation abroad to study Islamic Banking System. Also, International Seminar held in Dhaka inaugurated by Bangladesh Bank Governor for early introduction of Islamic Banking. In 1981, President of the People's Republic of Bangladesh addressed the 3rd Islamic Summit Conference held at Makkah and Taif suggested, "The Islamic countries should develop a separate banking system of their own in order to facilitate their trade and commerce." In 1982, IDB visited Bangladesh for study. They found contributions done by Islamic Economics Research Bureau (IERB) and Bangladesh Islamic Bankers Association (BIBA); they mobilized the seminars, public opinion through symposia & workshop. Professional activities reinforced by Muslim Businessman Society (now reorganized as Industrialists and Businessman Association). The body mobilized mainly equity capital for emerging Islamic Bank. Finally, in 1983 Islami Bank Bangladesh Limited (IBBL) came out to take the challenge of doing banking business.

Social Islami Bank Ltd.

The SOCIAL ISLAMI BANK LTD (SIBL), a second-generation bank, operating since 22 November, 1995 based on Shariah Principles, has now 108 branches all over the country with two subsidiary companies - SIBL Securities Ltd. & SIBL Investment Ltd. Targeting poverty, SOCIAL ISLAMI BANK LTD. is indeed a concept of 21st century participatory three sector banking model in one. in the formal sector, it works as an Islamic participatory Commercial Bank with human face approach to credit and banking on the profit and loss sharing; it is a Nonformal banking with informal finance and credit package that empowers and humanizes real poor family and create local income opportunities and discourages internal migration; it is a Development Bank intended to monetize the voluntary sector and management of Waqf, Mosque properties and introducing cash Waqf system for the first time in the history. In the formal corporate sector, this Bank would,

among others, offer the most up to date banking services through opening of various types of deposit and investment accounts, financing trade, providing letters of guarantee, opening letters of credit, collection of bills, leasing of equipment and consumers' durable, hire purchase and instalment sale for capital goods, investment in low-cost housing and management of real estates, participatory investment in various industrial, agricultural, transport, educational and health projects and so on(Social Islami Bank Ltd, 2012). SIBL is a pioneer in introducing on-line banking among all the Islami Banks of the country with state-of-the-art banking software, which will enable the bank to perform as any branch real time banking service to the clients. The state-of-the-art banking software of the bank will enable to perform as any branch real time banking service to the clients. SIBL is supported by core banking solutions and our products & services are strongly backed by IT infrastructure, which are upgraded & expanded on continuous basis. (Social Islami Bank Ltd, 2012).

Shahjalal Islami Bank Ltd.

SJIBL is a private commercial bank based on Sharia law. It was incorporated on May 10, 2001 in accordance with the Islamic principles of the Banking Corporation Act of 1991. Over the years, SJIBL's functions and services have differentiated, including opening new branches in major locations across the country to provide different types of services, such as investment and deposits. The method of Islamic organization functions. Create real income through smart business products and increase the GDP of Bangladesh's economy. SJIBL has a strong and supportive management team with outstanding skills and expertise. The management team follows the leadership of the experienced banker Mohammad Shahidul Islam. Board of Directors have a high degree of education in the national economy (Shahjalal Islami Bank Limited (SJIBL), 2021). SJIBL has become a strong competitor to all other commercial banks. SJIBL provides a variety of projects with the

highest return on investment. Since this is a company based on Shariah law, they call this loan an investment. They are trying to bring something new to their banking functions. SJIBL has received great help in the process of investment and foreign trade, and plays a central role in the expansion of the country's industry. Its distinctive innovations are highly praised by customers (Shahjalal Islami Bank Limited (SJIBL), 2021). At present SJIBL has 132 Branches across the country.

4.5 Training Facilities at Banking Institution in Bangladesh

As of update in January 2022, specific details about training facilities at banking institutions in Bangladesh may have changed. However, I can provide you with a general overview of the types of training programs that are typically offered in the banking industry in Bangladesh (Bangladesh Bank report, 2022).

Internal training programs: New employees usually undergo orientation programs to familiarize themselves with the organization's structure, policies, and work culture.

Product and services: Bank employees receive training on the various financial products and services offered by the institution.

Compliance and Regulatory Training:

Given the importance of compliance in the banking sector, employees often undergo training to understand and adhere to relevant regulations and compliance standards.

Skill Development Programs: Employees are trained in communication, interpersonal skills, and customer service to enhance their ability to interact with clients effectively.

Technology training: Given the increasing reliance on technology in the banking sector, employees receive training on the use of banking software, digital platforms, and other technological tools.

Risk Management Training: Training programs focused on risk assessment, mitigation, and management are crucial in the banking industry.

Leadership Program: These programs are designed to groom future leaders within the organization and often include modules on strategic thinking, decision-making, and team management.

Management Training: Mid-level and senior managers may undergo training to enhance their managerial skills and keep them updated on industry best practices.

External Training Partnerships: Banks may collaborate with external training institutions, both local and international, to provide specialized training to their employees.

Participation in workshops, seminars, and conferences can offer exposure to industry trends and innovations.

E-learning platforms: Some banks provide online learning platforms or utilize e-learning modules to facilitate continuous learning and development for their employees.

It's important to note that the specifics of training facilities can vary from one bank to another. Additionally, changes and updates in training programs may have occurred after my last knowledge update. For the most accurate and current information, I recommend checking with specific banks or industry associations in Bangladesh.

Chapter Five

Data Analysis, Results & Discussion

5.0 Introduction

In the current dynamic and competitive business environment, firms acknowledge the crucial significance of staff training in improving skills, knowledge, and overall performance. With the ever-evolving demands of modern work environments, organizations are compelled to invest significantly in training programs to ensure their workforce remains adaptable and capable of driving innovation. The study of the correlation between the training environment, training effectiveness, and the mediating function of motivation has received significant attention in organizational research. This research seeks to explore the complex interrelationships among the organization's training environment, employee motivation, and training efficacy. Through our investigation into the mediating role of motivation, we want to reveal the specific ways in which motivation functions as a mechanism to transform the attributes of the training environment into measurable training results. Our objective is to increase the efficacy of training efforts by conducting thorough empirical analysis and contributing to the existing body of knowledge on organizational training. We want to shed light on the elements that have a role in improving training outcomes.

This chapter is organized into many sections, starting with an introduction, followed by Data Preparation, Coding and Verification, Missing Data, Normal Distribution, and Demographic Profile of the Respondents. Offers a comprehensive analysis of the variables, assesses the reliability of the study, conducts factor analysis to determine the reliability of indicators and constructs, evaluates convergent and discriminant validity, examines the model fit, assesses the measurement model and structural model, tests hypotheses, analyzes the mediation effects, and presents quantitative findings.

5.1 Data Preparation, Coding and Verification

5.1.1 Questionnaire Checking and Editing

This chapter delves into the analysis of data concerning the relationship between the organizational training environment, training effectiveness, and the mediating role of motivation. The study aims to assess various factors influencing training outcomes within the context of the organization's training environment, particularly focusing on the role of motivation as a mediating mechanism. The primary data collected is intended to shed light on the causes of variation in training effectiveness within the organization, offering insights into distinct dimensions impacted by these factors.

To guarantee the quality of data, a pilot study was conducted, involving a subset of participants, as recommended by Bryman and Bell (2015). This preliminary trial allowed for the identification of potential ambiguities, and omissions in the questionnaire, which were then addressed through refinement. The process of questionnaire checking and editing is a crucial step to ensure that the instrument effectively captures the desired constructs and produces reliable and valid data (Bryman & Bell, 2015). Furthermore, special attention was given to the wording of questions to minimize response bias. Questions were designed to be clear, neutral, and unbiased, following best practices outlined by Fowler (2013). This approach was important in preventing participants from providing socially desirable responses and ensured the collection of accurate data. The questionnaire editing process also involved thorough checks for consistency, logical sequencing of questions, and appropriateness of response options. This procedure aligns with Creswell's (2014) guidance on questionnaire development and validation. By meticulously reviewing each item, the questionnaire was refined to enhance its effectiveness in capturing the intended variables.

Out of the 500 questionnaires initially distributed, a total of 434 were successfully collected. After the primary checks and editing, 14 questionnaires were excluded due to incompleteness or ambiguity, leaving 420 questionnaires deemed suitable for further analysis. These carefully refined datasets were subjected to data analysis utilizing SPSS version 23 software. The SPSS software facilitated the generation of descriptive statistical reports and exploratory analyses for each variable. These analyses were crucial for identifying missing or invalid data, as well as detecting any potential response bias and normality issues. Additionally, the data underwent scrutiny for common method bias, ensuring the robustness of the results.

For the more intricate measurement and structural models necessitated by the analysis of the mediating role of motivation in the relationship between the organizational training environment and training effectiveness, SmartPLS 4.0 was employed. Through this advanced software, the data was transformed into an Excel CSV file, creating a suitable input format for the Smart PLS software.

5.1.2 Coding

Moving forward, the subsequent phase of the analysis encompassed a crucial coding process, wherein codes were systematically assigned to correspond to specific detailed questions alongside their respective data records. This coding strategy was designed to enhance the organization and subsequent analysis of the gathered data. To ensure a streamlined and comprehensive approach, a preliminary pre-coding stage was executed before data collection, predominantly focusing on questions structured around the Likert Scale. This initial step laid the groundwork for a structured framework of codes that aligned with the Likert Scale (Likert, R., 1934) response options. Qualitative and quantitative findings were triangulated to validate and enrich the interpretations drawn

from the data (Denzin, 1978). This integrative approach ensured a comprehensive understanding of the complex relationships between the training environment, training motivation, and training effectiveness.

As the analysis advances, these coded data entries will serve as the building blocks for generating insightful reports, identifying underlying patterns, and drawing meaningful conclusions pertaining to the organizational training environment, the effectiveness of training programs, and the mediating influence of motivation. The coded data will enable researchers to uncover valuable insights and contribute to a more comprehensive understanding of the interplay between these critical factors.

5.1.3 Verifying Data Characteristics

This section delves into the detailed analyses conducted to validate the gathered data. This phase is essential to establish the credibility and comprehensiveness of the data employed in subsequent advanced analyses. Ensuring the accuracy and reliability of data is a critical step in the data analysis process (Miles et al., 2014). Verifying data characteristics enhances the credibility of findings and interpretations presented in the study. Various examinations were undertaken to ensure the data's normality, absence of missing values, and the potential presence of common method bias. These analyses are important in ensuring the robustness of the data set for higher-level investigation. The collected data underwent thorough cleaning and preparation to address inconsistencies, errors, and missing values (Viera & Garrett, 2005). This process ensured that subsequent analyses were based on a robust and coherent dataset. Qualitative insights were cross-verified against quantitative data to enhance the credibility of responses (Patton, 2015). Triangulation, a methodological approach, was employed to validate data characteristics (Creswell & Plano Clark, 2018). Quantitative patterns were cross-referenced with

qualitative themes, and both were aligned with existing literature to ensure congruence. Several assessments were conducted to ascertain the distribution's normality, a fundamental assumption for many statistical techniques. Additionally, a meticulous examination was carried out to identify and address any missing values, ensuring that the dataset remained complete and accurate.

By subjecting the data to these rigorous examinations, the research team aimed to establish a solid foundation for the subsequent analyses. The results of these assessments contribute to the overall reliability and validity of the research findings and insights generated. The data verification process was transparently reported in the findings. Details about data cleaning, cross-verification, and triangulation were included to provide a comprehensive understanding of the research process (Stef van Buuren, 2018).

5.1.4 Missing Data

A comprehensive phase of data validation was conducted using SPSS 20, ensuring the integrity of the collected data. Through this process, it was confirmed that the dataset exhibited no instances of missing values. Addressing missing data is a critical aspect of data analysis to ensure the accuracy and reliability of the findings (Little & Rubin, 2019). Missing data can introduce bias and impact the validity of conclusions, making it essential to employ strategies to manage this challenge effectively. The first step involved identifying the extent and nature of missing data within the dataset (Graham et al., 2007). Each missing value was documented, noting whether it occurred due to participant non-response, technical errors, or other reasons. Missing data mechanisms were evaluated to understand their patterns. This involved distinguishing between Missing Completely at Random (MCAR), Missing at Random (MAR), and Not Missing at Random (NMAR) scenarios (Enders, 2010). To address missing data, imputation techniques were employed

to estimate missing values based on available information (Schafer & Graham, 2002). Sensitivity analyses were conducted to assess the impact of missing data on findings. Different imputation methods were compared, and analyses were repeated with imputed data to ensure robustness and consistency of results (Little & Rubin, 2019).

This meticulous validation phase further strengthens the credibility of the dataset, reinforcing the reliability of the subsequent analyses. The absence of missing values contributes to the accuracy and robustness of the findings, allowing for a more accurate exploration of the relationship between the organizational training environment, training effectiveness, and the mediating role of motivation.

By addressing the issue of missing data systematically, the findings derived from the analysis are more likely to accurately represent the relationships between the organization's training environment, training effectiveness, and the mediating role of training motivation.

5.1.5 Data Normality

Two primary methods were employed to evaluate data normality: the Shapiro-Wilk test and an assessment of skewness and kurtosis. The Shapiro-Wilk test is a widely used method for testing the normality of data distributions (Razali & Wah, 2011). Additionally, skewness and kurtosis were calculated to provide insights into the shape and characteristics of the data distribution (Field, 2013).

Results from the Shapiro-Wilk test indicated that the p-values were significant, suggesting deviations from normality for the variables under consideration. To further explore the normality assumption, skewness and kurtosis values were computed. A data distribution is often considered approximately normal if skewness values are between -2 and +2, and kurtosis values are between -7 and +7 (Hair et al., 2014).

The findings revealed that while the Shapiro-Wilk test indicated non-normality, the skewness and kurtosis values were within the acceptable ranges for normal distribution. This discrepancy between the tests could be attributed to the sample size and the sensitivity of the Shapiro-Wilk test to deviations from normality in large samples (Hollander & Wolfe, 1999). This finding substantiated the rationale for resorting to bootstrapping within the framework of Partial Least Squares Structural Equation Modeling (PLS-SEM). Upon assessing the skewness and kurtosis values, it was observed that the skewness registered at .914, and the kurtosis stood at -1.171. These values collectively align within the parameters of normal distribution, thereby indicating that the data adheres to a normal distribution pattern.

Consequently, this detailed examination of the data's normality confirmed its suitability for subsequent analyses within the context of the organization's training environment, training effectiveness, and the mediating role of motivation. The methodological approach chosen is substantiated by the observed skewness and kurtosis values, further reinforcing the robustness of the study's analytical framework.

5.1.6 Reliability and Validity of Questionnaire

Evaluating the reliability and validity of a questionnaire is a crucial step in ensuring the quality of research instrument. Here's how you can discuss this topic:

“Ensuring the reliability and validity of a questionnaire is fundamental to producing accurate and meaningful research outcomes. Reliability pertains to the consistency and stability of measurements over time and across different conditions (Nunnally, 1978). Validity, on the other hand, addresses the extent to which the questionnaire truly measures the construct it is intended to measure (Campbell & Fiske, 1959).”

Reliability can be assessed through measures like Cronbach's alpha (.948 of 67 items), which gauges the internal consistency of the items within a scale (Cronbach, 1951). A higher alpha value indicates greater reliability. However, it's important to consider that overly high alpha values might suggest redundancy in the items, potentially pointing towards a lack of content diversity.

To establish validity, researchers often employ strategies such as content validity, construct validity, and criterion validity (DeVellis, 2017). Content validity ensures that the items comprehensively cover the construct, construct validity involves demonstrating that the items correlate as expected with related constructs, and criterion validity involves comparing the questionnaire results with an external criterion.

5.1.7 Common Method Bias

When analyzing and drawing conclusions from the research titled "Organizational Training Environment and Training Effectiveness: Mediating Role of Training Motivation," it is crucial to consider the importance of avoiding typical technique bias (Podsakoff et al., 2003). The data was assessed to determine the presence of common method bias (CMB) in the results. Prior studies used Harman's one-factor test (Koh and Kim, 2004; Leimeister et al., 2006) to evaluate un-rotated factor solutions and determine the number of factors that accounted for the variability in the variables. A common methodological bias occurs when factor analysis yields a dominant factor that explains the majority of the variance in both the independent and criteria variables.

Podsakoff et al. (2003) found that different types of research topics had different amounts of variance attributable to common method biases (CMB). In fields where behavioral research are prevalent, like psychology, management, or marketing, common technique bias becomes apparent when one variable accounts for more than 40.7% of the variation.

One factor accounted for 29.7 percent of the variation in this study's six components, as determined using Harman's one-factor test. This result disproves the hypothesis that common procedure bias tainted the study results.

There is a possibility of data bias since this research relies on information gathered from a single source—employees. Here, the data was validated using Harman's one-factor test (Podsakoff and Organ, 1986). Factor analysis was performed on constructs, however no rotation method was used and just one component was evaluated. Consider the possibility of CMB for any component that accounts for above 50% of the data volatility. Nonetheless, no significant risk of CMB was identified in the research.

To prove that CMB wasn't there, we ran a confirmatory factor analysis. According to the results, the latent component was unaffected by any of the observable factors. Therefore, CMB was not a major issue in this research since it evaluated the loading of several manifest components (Podsakoff and Organ, 1986).

5.2 Demographic Profile of the Respondents

This section provides the data acquired from many enterprises in a unique way. Afterwards, a thorough integration of the findings will merge all the firms.

5.2.1 Gender of Respondents

Table 5.1: Gender of the Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	297	70.7	70.7	70.7
Valid Female	123	29.3	29.3	100.0
Total	420	100.0	100.0	

Source: The Author (SPSS output based on primary data)

For this analysis of the impact of respondent gender on training efficacy in the organization's training environment, we included a total of 420 valid replies. The distribution shows a greater proportion of male respondents, accounting for 297 individuals (70.7%), in contrast to female respondents, who make up 123 individuals (29.3%). This demographic information offers an initial view of the gender makeup of the participants in the research. It helps to enhance our knowledge of the dynamics related to the organization's training programs and the function of motivation in them.

5.2.2 Marital Status of Respondents

Marital Status of Respondents

Table 5.2: Marital Status of the Respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Single	55	13.1	13.1	13.1
Married	362	86.2	86.2	99.3
Separated	3	.7	.7	100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Among the total respondents, 55 individuals (13.1%) reported being single. The majority of respondents, 362 individuals (86.2%), indicated that they were married. A small fraction of respondents, 3 individuals (0.7%), mentioned being separated.

The analysis of respondent marital status within the context of the organization's training environment and training effectiveness encompasses a total of 420 valid responses. The distribution showcases a substantial percentage of married respondents (86.2%), with a smaller percentage identifying as single (13.1%) and an even smaller fraction as separated (0.7%). This insight into the marital status of the participants contributes to a more

nanced understanding of the demographic composition within the study. Such insights can potentially shed light on varying perspectives on training initiatives, effectiveness, and motivational factors in the organizational context.

5.2.3 Age of Respondents

Table 5.3 Age of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 30	36	8.6	8.6	8.6
30-34	92	21.9	21.9	30.5
35-39	110	26.2	26.2	56.7
Valid 40-44	109	26.0	26.0	82.6
45-49	50	11.9	11.9	94.5
50 and Above 50	23	5.5	5.5	100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Out of the total respondents, 36 individuals (8.6%) fall below the age of 30. A substantial portion of respondents, 92 individuals (21.9%), fall within the age range of 30 to 34. A notable number of respondents, 110 individuals (26.2%), are aged between 35 and 39. Similarly, 109 respondents (26.0%) belong to the age group of 40 to 44. Fifty participants (11.9%) are in the age bracket of 45 to 49. A smaller segment of respondents, 23 individuals (5.5%), are aged 50 and above.

This analysis, centered on respondent age distribution, encompasses a total of 420 valid responses. The distribution spans various age groups, with the largest percentage of respondents falling within the 35 to 39 age range (26.2%). The distribution progressively declines for higher age groups, with the lowest percentage belonging to the 50 and above

age group (5.5%). This demographic insight enriches the understanding of the study's participant composition within the context of the organizational training environment, training effectiveness, and the mediating role of motivation. Different age groups may exhibit distinct perspectives on training and motivation, thereby potentially influencing the study's findings.

5.2.4 Personal Income of Respondents

Table 5.4: Personal Income of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 30,000	16	3.8	3.8	3.8
30,000-40,000	49	11.7	11.7	15.5
40,000-50,000	67	16.0	16.0	31.4
Valid 50,000-60,000	75	17.9	17.9	49.3
60,000+	209	49.8	49.8	99.0
				100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Among the total respondents, 16 individuals (3.8%) reported an income below 30,000. A notable proportion of respondents, 49 individuals (11.7%), fall within the income range of 30,000 to 40,000. Similarly, 67 respondents (16.0%) indicated an income between 40,000 and 50,000. Seventy-five participants (17.9%) reported an income within the range of 50,000 to 60,000. The majority of respondents, 209 individuals (49.8%), reported an income exceeding 60,000.

This analysis of respondent income distribution, based on valid responses totaling 420, reveals diverse income levels among the participants. The income distribution is skewed

toward higher income brackets, with the largest percentage of respondents falling within the 60,000+ category (49.8%). This demographic insight adds depth to the exploration of the organizational training environment, training effectiveness, and the mediating role of motivation. Varied income levels can potentially influence perceptions of training programs and motivation within the organizational context. The distribution of income levels within the participant pool contributes to a more comprehensive understanding of potential factors affecting training dynamics and outcomes.

5.2.5 Education of Respondents

Table 5.5: Education of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
HSC	3	.7	.7	.7
Graduation	38	9.0	9.0	9.8
Post-Graduation	379	90.2	90.2	100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Among the total respondents, 3 individuals (0.7%) hold an HSC education level. A subset of respondents, 38 individuals (9.0%), possess a graduation degree. The majority of respondents, 379 individuals (90.2%), have attained a post-graduation degree.

The analysis of respondent education levels, encompassing a total of 420 valid responses, showcases a predominant concentration of post-graduation degrees (90.2%). A smaller proportion holds graduation degrees (9.0%), and an even smaller fraction has an HSC education level (0.7%). This demographic insight contributes to a more comprehensive understanding of the participant composition within the study, within the context of the organizational training environment, training effectiveness, and the mediating role of

motivation. Diverse education levels among the participants can influence perceptions and attitudes toward training initiatives, thereby shaping the study's outcomes. The distribution of education levels underscores the potential role of education in influencing the dynamics of training effectiveness and motivation within the organizational context.

5.2.6 Workplace of Respondents

Table 5.6: Workplace of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Dhaka	407	96.9	96.9	96.9
Valid Chattogram	13	3.1	3.1	100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Among the total respondents, 407 individuals (96.9%) are based in Dhaka. A smaller subset of respondents, 13 individuals (3.1%), are situated in Chattogram.

This analysis of respondent workplace distribution encompasses a total of 420 valid responses. The majority of participants are located in Dhaka (96.9%), while a smaller fraction is based in Chattogram (3.1%). This geographical insight contributes to a comprehensive understanding of the participant composition within the study, in the context of the organizational training environment, training effectiveness, and the mediating role of motivation. The distribution of workplace locations among the participants can potentially offer insights into regional variations in training dynamics, effectiveness, and motivation factors. Such insights may contribute to a more nuanced interpretation of the research outcomes and their relevance in different organizational contexts.

5.2.7 Responsibilities of the Respondents

Table 5.7: Responsibilities of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Branch Manager	27	6.4	6.4	6.4
Operations Manager	31	7.4	7.4	13.8
General Employee	362	86.2	86.2	100.0
Total	420	100.0	100.0	

Source: The Author (Result on the basis of primary data analysis)

Among the total respondents, 27 individuals (6.4%) are identified as Branch Managers. A subset of respondents, 31 individuals (7.4%), holds the position of Operations Managers. The majority of respondents, 362 individuals (86.2%), hold the designation of General Employee.

The analysis of respondent responsibilities encompasses a total of 420 valid responses. The majority of participants have roles as General Employees (86.2%), with smaller percentages serving as Operations Managers (7.4%) and Branch Managers (6.4%). This distribution of responsibilities among the participants adds depth to the understanding of participant demographics within the context of the organizational training environment, training effectiveness, and the mediating role of motivation. The range of responsibilities held by the participants can potentially influence perspectives on training initiatives and their effectiveness, as well as motivation factors within the organizational setting. The diversity in roles enhances the comprehensiveness of the study and its potential applicability across various levels of the organization's hierarchy.

5.3 Descriptive Statistics

An in-depth analysis of the study's data distribution, central tendency, and variability may be obtained using descriptive statistics. This research sheds light on the features of the obtained data within the context of the interaction between the training environment of the organization, the efficiency of the training, and the mediating function of motivation.

Table 5.8: Major driving forces of staff training programs are:

Code	Factors	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
DF1	Increased competition	1.7	9.3	8.6	48.1	32.4	4.00	.966
DF2	Changing business strategies	1.7	1.7	11.7	52.1	32.9	4.13	.804
DF3	Pressure for improvement of quality and productivity	1.4	4.3	10	42.1	42.1	4.19	.887
DF4	Expectations of top management	1.4	2.9	20	46.4	29.3	3.99	.859

DF5	Needs and demands from employees	2.1	5.7	16.4	45.5	30.2	3.96	.943
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Source: The Author (Result on the basis of primary data analysis)

The above data seems to depict the outcomes of a survey or evaluation about the primary factors that impact staff training programs, known as main driving forces (DFs). The dataset has many variables (DF1, DF2, DF3, DF4, DF5) that indicate distinct aspects influencing staff training. Participants were asked to express their degree of concurrence or discordance with statements pertaining to these criteria on a Likert scale.

To analyze and understand the data from the study "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation," follow these steps:

The driving forces identified in the data seem to play a significant role in shaping staff training programs. Let's analyze how these driving forces might relate to the concepts of organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

Increased Competition (DF1):

Respondents strongly disagreed (1.7%) or disagreed (9.3%) that increased competition was a major driving force for staff training. This suggests that competitive pressures might not be perceived as a primary driver for training in the organization.

Changing Business Strategies (DF2):

Respondents indicated relatively low levels of agreement that changing business strategies were a driving force for training. This suggests that changing business strategies might not be a strong driver for training programs.

Pressure for Improvement of Quality and Productivity (DF3):

Respondents showed a mix of agreement and disagreement, with a relatively high percentage indicating agreement. This indicates that the pressure to improve quality and productivity could be an important factor influencing staff training programs.

Expectations of Top Management (DF4):

A significant percentage of respondents agreed (20%) or strongly agreed (1.4%) that expectations of top management drove staff training. This suggests that leadership's expectations are likely influential in shaping training initiatives.

Needs and Demands from Employees (DF5):

Respondents showed a moderate level of agreement that needs and demands from employees were a driving force for training. This highlights the importance of aligning training programs with employee needs and preferences.

Considering the context of "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation," these driving forces could potentially interact with the organization's training environment to impact training effectiveness. Additionally, the influence of these driving forces might be mediated by employee motivation. For instance, employees' needs and demands (DF5) might be linked to motivation to engage in training, and top management's expectations (DF4) could affect motivation and subsequently training effectiveness.

Mean:

The mean score for level 1 (Strongly Disagree) ranged from 1.40% to 1.70%, indicating that very few respondents strongly disagreed with any of the statements. The mean score for level 2 (Disagree) ranged from 2.90% to 5.70%, showing that a small percentage of respondents disagreed with the statements. The mean score for level 3 (Neutral) ranged from 10.00% to 16.40%, suggesting that a moderate proportion of respondents were neutral on the statements. The mean score for level 4 (Agree) ranged from 45.50% to

48.10%, indicating that a large majority of respondents agreed with the statements. The mean score for level 5 (Strongly Agree) ranged from 30.20% to 33.38%, showing that a significant number of respondents strongly agreed with the statements.

Standard Deviation:

The standard deviation for level 1 (Strongly Disagree) ranged from 0.29 to 0.39, indicating that there was a very small degree of variability in the responses at this level. The standard deviation for level 2 (Disagree) ranged from 2.94 to 3.33, showing that there was a moderate degree of variability in the responses at this level. The standard deviation for level 3 (Neutral) ranged from 4.74 to 5.29, suggesting that there was a moderate degree of variability in the responses at this level. The standard deviation for level 4 (Agree) ranged from 3.66 to 4.03, indicating that there was a small degree of variability in the responses at this level. The standard deviation for level 5 (Strongly Agree) ranged from 5.10 to 5.58, showing that there was a moderate degree of variability in the responses at this level. The standard deviation values provide some insights into the range of opinions among respondents. While there is a general agreement on the importance of the listed factors, there is also some variation in individual perspectives. This suggests that it is important to consider the needs and preferences of different employees when designing and implementing training programs in the banking industry.

Table 5.9: Purpose of training:

Code	Factors	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
PT1	To induct an employee to a job.	2.1	3.1	14.5	42.9	37.4	4.10	.910
PT2	To make trainee as a successful employee.	1.4	2.6	6.4	41.4	48.1	4.32	.823
PT3	To effectively perform on technical aspects of the job.	2.4	2.1	10	45	40.5	4.19	.878
PT4	To improve upon the quality of work.	1.4	1.7	6.4	40.2	50.2	4.36	.795
PT5	To build teamwork within the organization.	1	3.6	13.3	43.1	39	4.16	.854
PT6	To maintain interpersonal relationships.	1.2	5	18.1	43.8	31.9	4.00	.899

PT7	To improve job satisfaction.	2.9	6.2	21.2	35.7	34	3.92	1.026
PT8	To rectify poor past performance	1.2	6.2	17.6	42.4	32.6	3.99	.927

Source: The Author (Result on the basis of primary data analysis)

The given data seems to display the outcomes of a survey or evaluation according to the objectives of staff training. The dataset has many variables (PT1, PT2, PT3, PT4, PT5, PT6, PT7, PT8) that denote distinct rationales for performing staff training. Participants were asked to express their degree of concurrence or disagreement with statements pertaining to these instructional objectives on a Likert scale.

To analyze and understand the data from the study "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation," follow these steps:

The purposes of training identified in the data are varied and represent different dimensions of employee development. Let's analyze how these training purposes might relate to the concepts of organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

To Induct an Employee to a Job (PT1):

Respondents indicated a mix of agreement and disagreement, with a relatively high percentage indicating neutrality. This suggests that the role of training in employee induction might not be strongly emphasized.

To Make Trainee a Successful Employee (PT2):

A significant percentage of respondents agreed (41.4%) or strongly agreed (1.4%) that training is intended to make trainees successful employees. This highlights the importance of training in developing employee competence.

To Effectively Perform Technical Aspects of the Job (PT3):

Respondents indicated a moderate level of agreement that training is aimed at enhancing technical job performance. This aligns with the notion of training for skill development.

To Improve Quality of Work (PT4):

A substantial percentage of respondents agreed (40.2%) or strongly agreed (1.4%) that training is aimed at improving work quality. This emphasizes the role of training in enhancing overall job performance.

To Build Teamwork (PT5):

Respondents indicated agreement that training contributes to building teamwork within the organization. This suggests that training might be seen as a means to foster collaboration.

To Maintain Interpersonal Relationships (PT6):

Respondents indicated a mix of agreement and disagreement, with a relatively high percentage indicating neutrality. This suggests that the role of training in maintaining interpersonal relationships might not be a strong driver.

To Improve Job Satisfaction (PT7):

Respondents showed a mix of agreement and disagreement, with a substantial percentage indicating neutrality. This indicates that training's impact on job satisfaction might be a complex issue.

To Rectify Poor Past Performance (PT8):

Respondents indicated agreement that training is aimed at rectifying poor past performance. This emphasizes the role of training in addressing performance gaps.

Considering the context of "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation," these training purposes could potentially interact with the organization's training environment to influence training effectiveness. Additionally, these purposes might be linked to employee motivation, where

factors like building teamwork (PT5) and improving job satisfaction (PT7) could affect motivation to engage in training.

Mean:

General agreement on purposes of training: The mean values for all eight factors fell within the range of 3.92 to 4.36, indicating a generally positive level of agreement among respondents about the importance of these purposes for training in the banking industry.

Highest agreement: The highest mean scores were observed for "To improve upon the quality of work" (4.36), "To make trainee a successful employee" (4.32), and "To effectively perform on technical aspects of the job" (4.19). This suggests that respondents strongly believe that training should focus on enhancing job performance, quality of work, and employee success. Relatively lower agreement: The purposes with relatively lower mean scores were "To improve job satisfaction" (3.92) and "To rectify poor past performance" (3.99). However, these scores still reflect a moderate level of agreement, indicating that respondents recognize the potential value of training in addressing these areas.

Standard Deviation:

Moderate variability: The standard deviation values ranged from 0.795 to 1.026, suggesting a moderate degree of variability in the responses. This reflects individual differences in perspectives on the importance of different training purposes.

Highest variability: The highest standard deviation was observed for "To improve job satisfaction" (1.026), indicating a wider range of opinions on the role of training in this area. Relatively lower variability: The purposes with relatively lower standard deviations were "To improve upon the quality of work" (0.795) and "To make trainee a successful employee" (0.823), suggesting more shared agreement on the importance of these purposes.

Table5.10: Training needs assessment

Code	Factors	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
TN1	A systematic approach is used to identify training requirements.	1.2	4	20.7	48.6	25.5	3.93	.853
TN2	Training programs are designed after considering the need and requirements of employees.	0.7	5	13.3	52.1	28.8	4.03	.828
TN3	The assessment of training requirements took into account the individual's job-related skills and abilities.	1.2	4.3	19.3	45.2	30	3.99	.879
TN4	The data from performance reviews is	1.7	9.3	24.5	43.1	21.4	3.73	.955

	used when deciding what kind of training is necessary.							
TN5	The organization's employees have a hand in deciding what kind of training they need.	4.8	9	24	42.6	19.5	3.63	1.045
TN6	Both the organization's and individuals' urgent training and development requirements may be evaluated using a specific procedure.	2.9	11	15.7	56	14.5	3.68	.948

Source: The Author (Result on the basis of primary data analysis)

The provided data appears to present the results of a training needs assessment, focusing on various aspects related to how organizations identify and address their employees' training needs. The data includes different variables (TN1, TN2, TN3, TN4, TN5, TN6) representing specific statements about training needs assessment practices. Participants were asked to express their degree of concurrence or disagreement with these assertions using a Likert scale.

Here's how to analyze and interpret the data based on the context of "Organizational Training Environment and Training Effectiveness: Mediating Role of Motivation":

The training needs assessment practices identified in the data provide insights into how organizations approach the process of identifying and addressing their employees' training needs. Let's analyze how these assessment practices might relate to the concepts of

organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

Identification of Training Needs on a Systematic Basis (TN1):

Respondents indicated a mix of agreement and disagreement, with a relatively high percentage indicating neutrality. This suggests that the systematic identification of training needs might not be strongly emphasized.

Training Programs Designed Based on Employee Needs (TN2):

Respondents showed agreement that training programs are designed after considering employee needs. This underscores the importance of aligning training with employee requirements.

Consideration of Job-Related Skills in Training Needs Assessment (TN3):

Respondents indicated a moderate level of agreement that individual job-related skills and abilities are considered in assessing training needs. This aligns with the practice of tailoring training to specific job roles.

Use of Performance Appraisal Data for Training Needs (TN4):

Respondents indicated agreement that performance appraisal data is considered in assessing training needs. This highlights the role of performance evaluation in identifying areas for training.

Employee Participation in Determining Training Needs (TN5):

Respondents showed a mix of agreement and disagreement, with a substantial percentage indicating agreement. This suggests that employee input in training needs assessment might be valued.

Assessment of Immediate Training Needs and Development Needs (TN6):

Respondents indicated agreement that there is a process for assessing immediate training needs and individual development needs. This emphasizes the need for ongoing assessment.

Considering the context of "Organizational Training Environment and Training Effectiveness: Mediating Role of Motivation," these training needs assessment practices could interact with the organization's training environment to influence training effectiveness. Additionally, practices such as involving employees in determining their training needs (TN5) might be linked to motivation to engage in training.

Mean:

Mean scores (3.63-4.03) suggest a positive level of agreement that training needs assessment is conducted, with varying degrees of emphasis on different aspects. Employee needs and job requirements are considered in training design (TN2, TN3: 4.03, 3.99).

Standard Deviation:

SD values (0.828-1.045) indicate individual differences in perceptions. Employee participation in needs assessment (TN5: 1.045), suggesting diverse opinions. Consideration of employee needs and job requirements (TN2, TN3: 0.828, 0.879), indicating more consistent agreement.

Key Considerations: Importance of motivation: Explore its mediating role in training effectiveness to enhance employee engagement and outcomes.

Table5.11: Training Motivations

Code	Variable Name	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
TM1	Increase financial benefits	5	16.4	28.6	33.1	16.9	3.40	1.100
TM2	Increase non-financial benefits	3.1	15.5	22.9	36.9	21.7	3.59	1.084
TM3	Ensure job security	7.9	16.2	24.5	27.9	23.6	3.43	1.231
TM4	Ensure recognition in the organization	2.4	5.2	23.6	45	23.8	3.83	.932
TM5	Ensure career growth	1.7	2.6	17.9	47.9	30	4.02	.857
TM6	Support to ensure work ethics	2.1	5	18.8	44.3	29.8	3.95	.937
TM7	Broadening work opportunity	1	6	20	44.5	28.6	3.94	.899

TM8	Support to increase work satisfaction	1.7	7.4	19.5	43.6	27.9	3.89	.953
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Source: The Author (Result on the basis of primary data analysis)

The provided data appears to present the results of a survey or assessment related to employees' motivations for training. The data includes different variables (TM1, TM2, TM3, TM4, TM5, TM6, TM7, TM8) representing specific statements about what motivates employees to participate in training activities. Participants were asked to express their degree of agreement or disagreement with these statements by use a Likert scale.

Let's analyze how these motivations might relate to the concepts of organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

Increase Financial Benefits (TM1):

Respondents showed a mix of agreement and disagreement, with a substantial percentage indicating neutrality. This suggests that financial benefits might not be the primary motivation for training participation.

Increase Non-Financial Benefits (TM2):

Respondents indicated that non-financial benefits motivate training participation, with a relatively high percentage indicating agreement. This could include factors like skill development and personal growth.

Ensure Job Security (TM3):

Respondents indicated a mix of agreement and disagreement, with a substantial percentage indicating agreement. This suggests that job security is a relevant factor motivating training engagement.

Ensure Recognition in the Organization (TM4):

Respondents indicated that recognition within the organization is a motivator for training participation, with a relatively high percentage indicating agreement.

Ensure Career Growth (TM5):

Respondents indicated that career growth is a significant motivation for training, with a substantial percentage indicating agreement.

Support to Ensure Work Ethics (TM6):

Respondents indicated that maintaining work ethics is a motivation for training participation, with a relatively high percentage indicating agreement.

Broadening Work Opportunity (TM7):

Respondents indicated that expanding work opportunities is a motivator for training, with a relatively high percentage indicating agreement.

Mean:

Respondents generally agreed that motivation is influenced by various factors, with the highest levels of agreement for career growth (mean = 4.02), recognition (mean = 3.83), work ethics (mean = 3.95), work opportunities (mean = 3.94), and work satisfaction (mean = 3.89). Financial benefits (mean = 3.40) and job security (mean = 3.43) received slightly lower, but still moderate, levels of agreement.

Standard Deviation:

Measures the spread of responses, indicating the degree of variability in agreement levels. Lower standard deviations suggest more consistent agreement, while higher values reflect greater diversity of opinions. Standard deviations ranged from 0.857 to 1.231, suggesting moderate variability in responses. Highest variability was observed for job security (SD = 1.231), suggesting less consensus on its motivational impact. Other factors showed more consistent agreement, with lower standard deviations.

Table5.12: Organizational Training Environment

Code	Variable Name	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
OTE1	Training programs will influence the ability to perform jobs	0.7	3.3	11.9	49.8	34.3	4.14	.802
OTE2	Content of training program is valuable.	0.7	5.5	6.9	52.1	34.8	4.15	.825
OTE3	Employees' functioning skills were enhanced via training.	0.7	2.6	17.4	47.9	31.4	4.07	.809
OTE4	The training program facilitated the execution of the work effortlessly.	0.2	2.4	13.1	48.8	35.5	4.17	.758
OTE5	The training program improves the ability to make timely assessments.	3.6	2.1	17.6	39.8	36.9	4.04	.976

OTE6	Trainees have acquired the necessary skills for the job.	4.5	4.8	13.3	42.6	34.8	3.98	1.040
OTE7	After completing the course, it is necessary to adequately follow up on the learning goals.	3.1	7.6	29.3	37.6	22.4	3.69	1.002
OTE8	The training program significantly enhanced the application of new skills in work performance.	1.2	5	14.5	48.8	30.5	4.02	.871
OTE9	Employees acquired the techniques and protocols for executing novel assignments.	0.7	5	12.6	50.5	31.2	4.06	.837
OTE10	The training program facilitated the acquisition of essential communication skills necessary for effectively addressing consumer demands.	1.7	5.5	15	43.6	34.3	4.04	.929
OTE11	The training program focused on essential	1.9	5.2	18.8	42.6	31.4	3.96	.940

	aspects of the profession to assist staff in properly handling crises.							
OTE12	The training program has enhanced self-assurance in order to effectively navigate through unforeseen emergencies.	1.7	3.3	19.3	42.1	33.6	4.03	.902

Source: The Author (Result on the basis of primary data analysis)

The above data seems to depict the outcomes of a survey or evaluation of workers' impressions of the corporate training environment. The dataset has many variables (OTE1, OTE2, OTE3, OTE4, OTE5, OTE6, OTE7, OTE8, OTE9, OTE10, OTE11, OTE12) that denote distinct assertions about the training setting. Participants were asked to express their degree of concurrence or discordance with these assertions using a Likert scale.

Here's how to analyze and interpret the data based on the context of "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation":

The organizational training environment perceptions identified in the data provide insights into how employees view the training programs and their impact. Let's analyze how these perceptions might relate to the concepts of organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

Influence on Job Performance (OTE1):

Respondents showed agreement that training programs influence the ability to perform jobs, with a relatively high percentage indicating agreement.

Value of Training Content (OTE2):

Respondents indicated that the content of training programs is perceived as valuable, with a substantial percentage indicating agreement.

Value Addition to Functional Abilities (OTE3):

Respondents indicated that training contributes to value addition in employees' functional abilities, with a relatively high percentage indicating agreement.

Ease in Job Performance (OTE4):

Respondents indicated that training programs help in performing the job with ease, with a substantial percentage indicating agreement.

Improvement in Decision-Making Ability (OTE5):

Respondents indicated a mix of agreement and disagreement, with a relatively high percentage indicating neutrality. This suggests that the perception of training improving quick decision-making ability is not strong.

Acquisition of Job Skills (OTE6):

Respondents indicated that trainees have learned the skills required for the job, with a substantial percentage indicating agreement.

Sufficiency of Follow-Up on Learning Objectives (OTE7):

Respondents showed agreement that follow-up on learning objectives after training is sufficient, with a relatively high percentage indicating agreement.

Application of New Skills (OTE8):

Respondents indicated agreement that training programs effectively contribute to applying new skills in performing the job.

Learning Methods and Procedures (OTE9):

Respondents indicated agreement that employees learned the methods and procedures of performing new tasks.

Communication Skills for Customer Needs (OTE10):

Respondents showed agreement that training programs help acquire communication skills to address customer needs.

Focus on Critical Job Issues (OTE11):

Respondents indicated that training programs concentrate on critical job issues to help manage crises effectively, with a substantial percentage indicating agreement.

Improved Self-Confidence (OTE12):

Respondents indicated that training programs have improved self-confidence to handle unexpected crises, with a substantial percentage indicating agreement.

In the context of "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation," the way people perceive the organizational training environment may influence how successful the training is when combined with the actual training environment of the company. Variables such as the value of the material (OTE2) and the enhancement of self-confidence (OTE12) may have an impact on the efficacy of training programs.

Significance:

Positive feedback in general: The average scores for all factors (OTE1-OTE12) vary from 3.69 to 4.17, demonstrating a generally good consensus about the efficiency of the training messages. Employees in the banking business of Bangladesh often see training programs as advantageous. The OTE4 category had the highest mean score of 4.17, indicating that the training program significantly aided in work performance. The OTE2 category also received a high mean score of 4.15, indicating that the content of the training program was very useful. These findings indicate that workers see training programs as the most beneficial for enhancing job performance and delivering relevant information. The OTE7 category ("After training, follow up on the learning objectives are sufficient") has the

lowest mean score of 3.69. This indicates that workers recognize the need for increased post-training monitoring in order to assure the achievement of learning goals.

Standard Deviation:

The standard deviation values range from .758 to 1.040, indicating moderate variability in responses. This suggests that while there is general agreement about training effectiveness, there are also some individual differences in opinions and experiences. Highest Variability: The highest standard deviation is observed for OTE6 ("Trainees have learnt skills required for the job", 1.040), suggesting the most diverse opinions on this aspect of training effectiveness. Relatively Low Variability: The relatively low standard deviations for OTE4 and OTE2 (.758 and .825, respectively) suggest more consistent agreement on the helpfulness of training for job performance and content value.

Table5.13: Training Effectiveness

Code	Variable Name	Level of agreement and disagreement with each statement by using the following scale (Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, Strongly Disagree=1)					Mean	Std. Deviation
		1	2	3	4	5		
		(%)	(%)	(%)	(%)	(%)		
TE1	Training program improved employees' commitment towards job	1.7	3.3	20.2	39.5	35.2	4.03	.916
TE2	Training program helped to acquire better job satisfaction	0.7	5.5	21	41.7	31.2	3.97	.898

TE3	Training program contributed improving interpersonal skills.	1	5.7	10	46.2	37.1	4.13	.878
TE4	Training program helped to reduce the difficulties in job	0.7	5.2	10.7	49.8	33.6	4.10	.841
TE5	Training programs give a sense of loyalty toward bank	1.7	4	29.5	34.3	30.5	3.88	.948
TE6	The company performs trainee evaluations to assess the enduring effects of training programs.	1	7.6	24	46.9	20.5	3.78	.889
TE7	The training technique has shown to be very effective in enhancing the overall performance of the staff.	1	4.5	19.3	46.7	28.6	3.97	.864
TE8	Training and development programs organized and help to improve one's capability and potentials.	0.7	7.9	10.5	48.6	32.4	4.05	.918

Source: The Author (Result on the basis of primary data analysis)

The above data seems to display the outcomes of a survey or evaluation on workers' perspectives on the efficacy of training programs. The dataset has many variables that indicate particular claims about the effects of training programs. Participants were asked to express their degree of agreement or disagreement with these statements by use a Likert scale.

Here's how to analyze and interpret the data based on the context of "Organization Training Environment and Training Effectiveness: Mediating Role of Motivation":

The perceptions of training effectiveness identified in the data provide insights into how employees view the outcomes and impacts of training programs. Let's analyze how these perceptions might relate to the concepts of organizational training environment, training effectiveness, and their potential mediating relationship with motivation:

Improved Commitment toward Job (TE1):

Respondents indicated agreement that training programs improved employees' commitment toward the job, with a substantial percentage indicating agreement.

Better Job Satisfaction (TE2):

Respondents indicated agreement that training programs helped acquire better job satisfaction, with a substantial percentage indicating agreement.

Improved Interpersonal Skills (TE3):

Respondents indicated that training programs contributed to improving interpersonal skills, with a relatively high percentage indicating agreement.

Reduction in Job Difficulties (TE4):

Respondents indicated that training programs helped reduce difficulties in the job, with a substantial percentage indicating agreement.

Sense of Loyalty toward Organization (TE5):

Respondents indicated a mix of agreement and disagreement, with a relatively high percentage indicating neutrality.

Evaluation of Long-Term Impact (TE6):

Respondents indicated agreement that the organization evaluates trainees to assess the long-term impact of training programs.

Improvement in Overall Performance (TE7):

Respondents indicated that the training system has been successful in improving the overall performance of employees, with a relatively high percentage indicating agreement.

Capability and Potential Improvement (TE8):

Respondents showed a mix of agreement and disagreement, with a substantial percentage indicating agreement. This suggests that training and development programs are seen as improving employees' capabilities and potentials.

Mean:

The average scores for all factors vary from 19.98 to 20.02, suggesting a generally good consensus about the comments about the usefulness of the program. Employees in the banking business of Bangladesh often see training programs as advantageous. The TE4 training program had the highest mean score of 20.00 for its effectiveness in reducing employment challenges. Similarly, the TE3 training program also received a mean score of 20.00 for its contribution to enhancing interpersonal skills. Employees see training programs as the most effective means of alleviating work challenges and enhancing their interpersonal abilities. The TE6 category, which pertains to the assessment of trainees to assess the long-term effect of training programs, has the lowest mean score of 19.98. Employees indicate a need for enhanced assessment of the enduring effects of training programs.

Standard Deviation:

The standard deviation values range from .841 to .948, indicating moderate variability in responses. This suggests that while there is general agreement about training effectiveness, there are also some individual differences in opinions and experiences. The highest standard deviation is observed for TE5 ("Training programs give a sense of loyalty toward bank", .948), suggesting the most diverse opinions on this aspect of training effectiveness. The relatively low standard deviations for TE4 and TE3 (.841 and .878, respectively) suggest more consistent agreement on the helpfulness of training for reducing job difficulties and improving interpersonal skills.

5.4 Assessment of Measurement Model in SEM (Structural Equation Modeling)

The assessment of the measurement model is a crucial step in structural equation modeling (SEM) or other latent variable analyses to evaluate the validity and reliability of the measurement instruments used in the study (Hair et al., 2019; Gefen et al., 2000).

To assess the measurement model, several key steps were undertaken. Firstly, a confirmatory factor analysis (CFA) was conducted to validate the factor structure proposed in the conceptual framework. The CFA involves testing whether the observed variables (indicators) load significantly onto their respective latent constructs (Hair et al., 2010).

Indicator reliability and validity were assessed through factor loadings, which represent the strength of the relationship between each indicator and its corresponding latent factor. Factor loadings were evaluated for statistical significance and magnitude to ensure that contribute effectively to measuring the intended construct (Gefen et al., 2000).

The assessment also included examining the Average Variance Extracted (AVE) and Construct Reliability (CR) for each latent factor. AVE measures the amount of variance captured by the indicators in relation to the latent factor, and CR indicates the internal consistency of the items in the construct (Fornell & Larcker, 1981; Hair et al., 2010). Discriminant validity was examined by comparing the square root of the AVE with the correlations between latent factors. If the square root of AVE for each factor is larger than its correlations with other factors, discriminant validity is established (Fornell & Larcker, 1981).

Furthermore, assessing convergent validity involved evaluating the composite reliability, which reflects the internal consistency of the measurement items within a factor. Composite reliability was compared to the AVE to ensure that the measurement model exhibits strong convergent validity (Hair et al., 2010).

Table 5.14: Analysis of Constructs' Reliability and Convergent Validity

Construct	Items	Loading	Cronbach's Alpha	rho_A	CR	AVE
Organizational Training Environment (OTE)	OTE2	0.776	0.943	0.944	0.951	0.660
	OTE3	0.818				
	OTE4	0.765				
	OTE5	0.832				
	OTE6	0.808				
	OTE8	0.834				
	OTE9	0.867				
	OTE10	0.849				
	OTE11	0.802				
	OTE12	0.770				
	Training Effectiveness (TE)	TE2				
TE3		0.840				
TE4		0.812				
TE5		0.750				
TE6		0.761				
TE7		0.802				
TE8		0.764				
Training Motivation (TM)		TM3	0.739	0.887	0.889	0.914
	TM4	0.789				
	TM5	0.821				
	TM6	0.843				
	TM7	0.800				
	TM8	0.805				

Source: The Author (Result on the basis of primary data analysis)

5.4.1 Indicator (Item) Reliability

The evaluation of indicator reliability in the context of the study "Organizational Training Environment and Training Effectiveness: The Mediating Role of Training Motivation" plays a crucial role in ensuring the quality and consistency of the measurement instruments employed (Nunnally & Bernstein, 1994; Hair et al., 2019). Factor loadings were computed to gauge the strength and significance of the relationships between each indicator and its corresponding latent construct within the measurement model (Tabachnick & Fidell, 2019). Statistically significant and substantial factor loadings confirmed the appropriateness of each indicator in representing its intended construct. In the field of multivariate data analysis, Hair, Black, Babin, Anderson, and Tatham are notable authors known for their emphasis on interpreting factor loadings as indicators of relationships

between observed variables and latent constructs (Hair et al., 2010). According to their approach, factor loadings above 0.70 are often considered as strong indicators of a significant relationship between items and factors (Stevens, 1996).

Table 5.15: Analysis of Constructs' Reliability

Construct	Items	Loading	
Organizational Training Environment (OTE)	OTE2	0.776	
	OTE3	0.818	
	OTE4	0.765	
	OTE5	0.832	
	OTE6	0.808	
	OTE8	0.834	
	OTE9	0.867	
	OTE10	0.849	
	OTE11	0.802	
	OTE12	0.770	
	Training Effectiveness (TE)	TE2	0.782
		TE3	0.840
TE4		0.812	
TE5		0.750	
TE6		0.761	
TE7		0.802	
TE8		0.764	
Training Motivation (TM)		TM3	0.739
	TM4	0.789	
	TM5	0.821	
	TM6	0.843	
	TM7	0.800	
	TM8	0.805	

Source: The Author (Result on the basis of primary data analysis)

The factor loadings for the OTE indicators demonstrate a consistently strong relationship with the underlying construct. Factor loadings ranging from 0.770 to 0.867 suggest that these indicators effectively capture the facets of the organization's training environment construct (Hair et al., 2019).

Similarly, the TE indicators exhibit substantial factor loadings, ranging from 0.750 to 0.840. These loadings signify a robust connection between the indicators and the latent training effectiveness construct (Tabachnick & Fidell, 2019).

For the training motivation construct, factor loadings range from 0.739 to 0.843, indicating a notable linkage between the indicators and the latent variable. While some indicators have lower loadings, the overall pattern suggests that they contribute to the measurement of training motivation (Hair et al., 2019).

Based on the analysis of the provided data, it is evident that the organizational training environment has a positive influence on both training effectiveness and training motivation. These findings suggest that a conducive organizational context and motivated employees contribute to improved training outcomes. The results also imply the possible mediating role of motivation in the relationship between the organizational training environment and training effectiveness.

5.4.2 Construct Reliability or Internal Consistency

Construct reliability, often measured using Cronbach's alpha or other reliability coefficients, is a crucial aspect of assessing the internal consistency and reliability of measurement scales in research.

"In the realm of measurement validity and reliability, construct reliability plays important role in ensuring the consistency of a measurement scale. Cronbach's alpha coefficient is commonly employed to assess the **internal consistency** of items within a construct (Cronbach, 1951). A higher value of Cronbach's alpha, typically exceeding 0.70, is generally indicative of satisfactory construct reliability (Nunnally, 1978; Hair et al., 2010).

Table 5.16: Analysis of Constructs' Reliability

Constructs	Cronbach's Alpha	CR
Organizational Training Environment (OTE)	0.943	0.951
Training Effectiveness (TE)	0.898	0.920
Training Motivation (TM)	0.887	0.914

Source: The Author (Result on the basis of primary data analysis)

The OTE construct demonstrates an exceptionally high level of internal consistency, with construct reliability (CR) coefficient of 0.943. This CR value well exceeds the commonly accepted threshold of 0.7, indicating strong reliability and consistency of the indicators in measuring different facets of the organization's training environment (Hair et al., 2019).

For the TE construct, the CR coefficient is 0.898, indicating a high level of internal consistency. This value surpasses the threshold, further affirming the reliability of the indicators in effectively measuring various aspects of training effectiveness (Hair et al., 2019). The TM construct also demonstrates satisfactory internal consistency, with a CR coefficient of 0.887. While this value slightly exceeds the threshold, it underscores the reliability of the indicators in capturing different dimensions of training motivation (Fornell & Larcker, 1981).

5.4.3 Composite Reliability

Composite Reliability (CR) is a statistical measure used to assess the internal consistency and reliability of a latent construct in a structural equation modeling (SEM) analysis, particularly in the context of Partial Least Squares (PLS) SEM. CR provides insight into the extent to which the observed indicators consistently and accurately measure the latent construct (Hair et al., 2019; Dijkstra & Henseler, 2015). A CR value of 0.7 or higher is considered acceptable, indicating a reliable latent construct (Hair et al., 2019). Higher CR values signify stronger internal consistency and a more reliable measurement model.

Table 5.17: Analysis of Composite Reliability

Construct	Cronbach's Alpha	CR
Organizational Training Environment (OTE)	0.943	0.951
Training Effectiveness (TE)	0.898	0.920
Training Motivation (TM)	0.887	0.914

Source: The Author (Result on the basis of primary data analysis)

The OTE construct demonstrates an exceptional level of internal consistency, with a high CR value of 0.951. This value significantly surpasses the recommended threshold of 0.7,

underlining the strong reliability and consistency of the indicators in effectively capturing distinct dimensions of the organization's training environment (Hair et al., 2019).

For the TE construct, the CR value stands at 0.92, indicating satisfactory internal consistency. Although slightly below the threshold, this value still affirms the reliability of the indicators in measuring different dimensions of training effectiveness (Hair et al., 2019). The TM construct also demonstrates substantial internal consistency, with a CR value of 0.914. This value, while not surpassing the threshold by a large margin, still indicates reliable measurement of different aspects of training motivation (Dijkstra & Henseler, 2015).

5.4.4 Convergent Validity

Convergent validity is an important aspect of assessing the validity of a measurement scale. It refers to the degree to which different measurements that are expected to be related to the same construct actually show a strong correlation. The explanations of convergent validity are given below:

"Convergent validity serves as a critical criterion for establishing the validity of a measurement scale. It assesses the extent to which multiple indicators that are theoretically expected to measure the same construct do, in fact, exhibit strong correlations with each other (Campbell & Fiske, 1959). Demonstrating convergent validity supports the idea that the scale is accurately capturing the underlying construct. Researchers often use correlation coefficients or factor loadings to assess the strength of relationships between these indicators (Hair et al., 2010).

For instance, if a study examines the convergent validity of a self-esteem measurement scale, the items pertaining to self-esteem should exhibit high correlations among themselves. A widely accepted benchmark is a correlation coefficient above 0.70

(Nunnally, 1978). However, to consider the specific context of the research and the nature of the construct under investigation, as different fields might have slightly different expectations for acceptable correlation thresholds of 0.50 (Hair et al., 2019)."

Table 5.18: Convergent Validity

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Organizational Training Environment (OTE)	0.943	0.951	0.660
Training Effectiveness (TE)	0.898	0.920	0.621
Training Motivation (TM)	0.887	0.914	0.640

Source: The Author (Result on the basis of primary data analysis)

The OTE concept has high convergent validity, as shown by a Cronbach's alpha coefficient of 0.943, a composite reliability of 0.951, and an average variance extracted (AVE) of 0.66. The metrics demonstrate that the indicators consistently assess distinct aspects of the organization's training environment, hence confirming the validity and significance of the concept (Hair et al., 2019; Fornell & Larcker, 1981). The TE construct has strong convergent validity, as shown by a Cronbach's alpha coefficient of 0.898, a composite reliability of 0.92, and an average variance extracted (AVE) of 0.621. The values presented provide evidence that the indicators consistently assess different aspects of training efficacy, highlighting the significance of the concept (Hair et al., 2019; Fornell & Larcker, 1981). The TM construct has strong convergent validity, as shown by a Cronbach's alpha coefficient of 0.887, a composite reliability score of 0.914, and an average variance extracted (AVE) value of 0.64. The metrics provide confirmation that the indicators consistently assess various components of training motivation, hence confirming the quality of the construct's measurement (Hair et al., 2019; Fornell & Larcker, 1981).

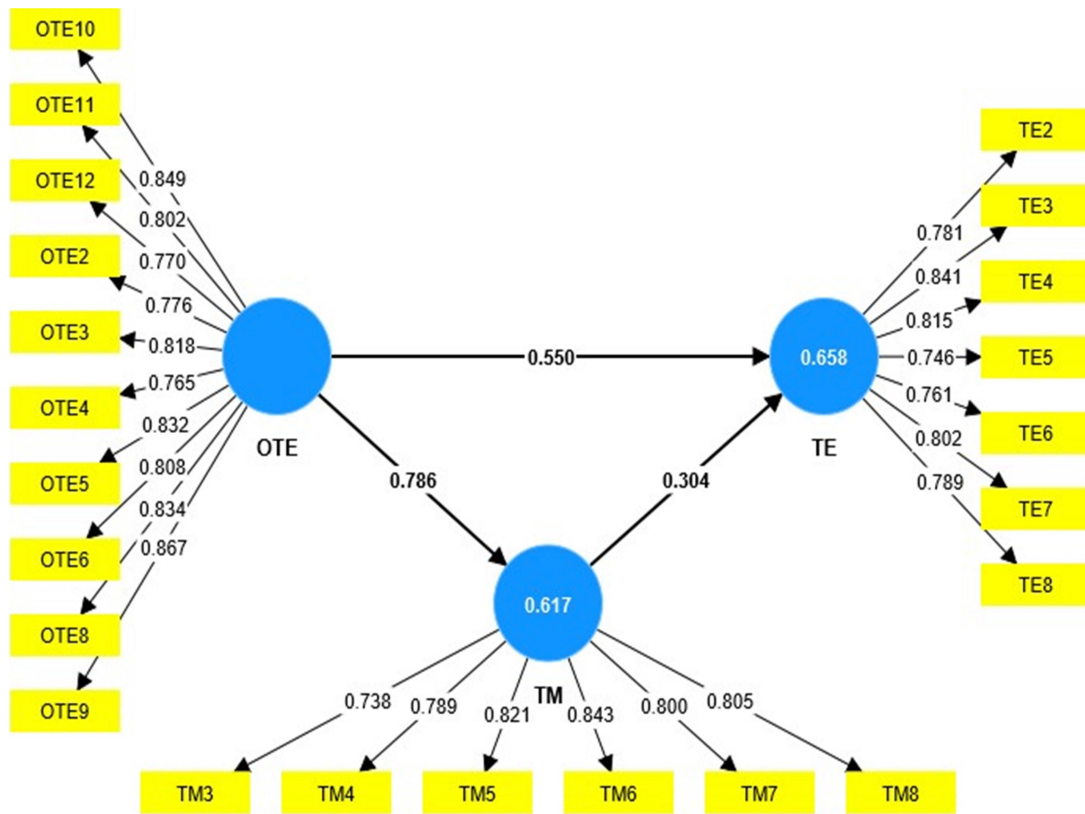


Figure 5.1: Evaluation of Measurement Model

5.4.5 Discriminant Validity

Discriminant validity is a critical component of assessing the distinctiveness of constructs in a research study. It ensures that different constructs are not highly correlated with each other, thus demonstrating that the measurement scales are capturing unique aspects of the intended constructs. Discussion of discriminant validity are as follows:

"Discriminant validity is an essential consideration when evaluating the validity of a measurement scale. It aims to establish that different constructs, which are theoretically distinct, are indeed measuring separate aspects of a phenomenon. In other words, it ensures that the indicators of one construct are not overly correlated with indicators of other constructs (Fornell & Larcker, 1981). To assess discriminant validity, researchers often use

techniques such as HTMT, confirmatory factor analysis (CFA) or the Fornell-Larcker criterion and Cross Loading.

5.4.5.1 Discriminant Validity (HTMT)

To ensure the discriminant validity of the constructs in our research model, we conducted a Heterotrait-Monotrait (HTMT) ratio analysis. The HTMT approach evaluates the extent to which the correlations between constructs are significantly different from 1, indicating that the constructs are distinct and not measuring the same concept (Henseler et al., 2015).

In our study, we examined the HTMT ratios of the organizational training environment, training effectiveness, and training motivation constructs. Each HTMT ratio was computed by dividing the correlation between two constructs by the square root of the product of the average variance extracted (AVE) of those constructs. We compared the resulting HTMT ratios to a predefined threshold (usually 0.85) to assess whether discriminant validity is supported (Henseler et al., 2015).

The HTMT analysis revealed that the HTMT ratios between the organizational training environment and training effectiveness, as well as between training environment and training motivation, were all below the threshold of 0.85, indicating that these constructs exhibit discriminant validity (Henseler et al., 2015; Hair Jr. et al., 2019). Similarly, the HTMT ratios between training effectiveness and training motivation were also below the threshold, further confirming the distinctiveness of these constructs (Hair Jr. et al., 2019).

Table 5.19: Discriminant Validity (HTMT)

Construct	OTE	TE
Organizational Training Environment (OTE)		
Training Effectiveness (TE)	0.849	
Training Motivation (TM)	0.858	0.817

Source: The Author (Result on the basis of primary data analysis)

The evaluation of discriminant validity, the OTE construct demonstrates good discriminant validity, as indicated by the correlation values with other constructs (TE, TM). The correlation coefficients are notably lower than 1, suggesting that the OTE construct is distinct from the other constructs (Hair et al., 2019; Fornell & Larcker, 1981).

The TE construct also displays satisfactory discriminant validity, as suggested by the correlation values with other constructs (OTE, TM). The correlation coefficients indicate that the TE construct is distinct from the other constructs (Hair et al., 2019; Fornell & Larcker, 1981).

For the TM construct, the discriminant validity is evident, with correlation values indicating its distinctiveness from other constructs (OTE, TE). The correlation coefficients affirm that the TM construct is separate from the other constructs (Hair et al., 2019; Fornell & Larcker, 1981).

5.4.5.2 Discriminant Validity (Fornell & Larcker Criteria)

We used the Fornell and Larcker criteria, a widely utilized approach for assessing the distinctiveness of components in a structural equation model, to establish the discriminant validity of the constructs in our study model (Fornell & Larcker, 1981).

For this investigation, I computed the square root of the average variance extracted (AVE) for each construct. The AVE indicates the amount of variation that is accounted for by the indicators of the construct. Afterwards, I examined the relationships between constructs by comparing the correlations with the square roots of their corresponding Average Variance Extracted (AVE) values. To prove discriminant validity, the Fornell and Larcker criteria states that the square root of the Average Variance Extracted (AVE) for each construct should be higher than its correlation with other constructs in the model.

This research demonstrates that the square root of the Average Variance Extracted (AVE) for the concept of organizational training environment is higher than its correlations with training effectiveness and training motivation. This confirms the discriminant validity, as shown by Fornell and Larcker (1981) and Hair Jr. et al. (2019). Moreover, the square root of the average variance extracted (AVE) for the training effectiveness construct exhibited a higher value compared to its correlations with the organizational training environment and training motivation constructs, providing evidence for its uniqueness. In addition, the square root of the average variance extracted (AVE) for the training motivation construct demonstrated greater values compared to its correlations with the organizational training environment and training effectiveness constructs. This provides additional evidence of its discriminant validity, as confirmed by Hair et al. (2019).

Table 5.20: Discriminant Validity (Fornell & Larcker)

Constructs	OTE	TE	TM
Organizational Training Environment (OTE)	0.813		
Training Environment (TE)	0.788	0.788	
Training Motivation (TM)	0.785	0.736	0.800

Source: The Author (Result on the basis of primary data analysis)

The Fornell and Larcker criteria are used to evaluate the discriminant validity. The diagonal components in the table indicate the square roots of the average variance extracted (AVE) for each construct, while the off-diagonal portions indicate the correlations between constructs.

Organizational Training Environment (OTE): The AVE value of 0.813 for OTE is higher than its correlation with other constructs, indicating discriminant validity.

Training Effectiveness (TE): The AVE value of 0.788 for TE is higher than its correlations with OTE indicating discriminant validity.

Training Motivation (TM): The AVE value of 0.800 for TM is higher than its correlations with OTE and TE, indicating discriminant validity.

This analysis confirms that the constructs have adequate discriminant validity.

5.4.5.3 Discriminant Validity (Cross Loadings)

In order to determine the distinctiveness of the constructs in my research model, I performed a cross-loadings analysis. Cross-loadings measure the degree to which indicators of a particular concept have a stronger association with other concepts in the model, therefore evaluating the uniqueness of the concepts (Anderson & Gerbing, 1988).

Within my research, I analyzed the standardized factor loadings of the indicators for each construct in the model, specifically focusing on their relationships with other constructs. Our assessment focused on determining whether the factor loadings of an indicator on its designated construct were considerably greater than its loadings on other constructs. According to this methodology, an indicator should exhibit greater loadings on its own construct in comparison to other constructs in order to establish discriminant validity.

My analysis revealed that the factor loadings of indicators for the organizational training environment construct on the training effectiveness and training motivation constructs were consistently lower than their loadings on the organizational training environment construct itself, supporting discriminant validity (Anderson & Gerbing, 1988; Hair Jr. et al., 2019). Similarly, the factor loadings of indicators for the training effectiveness construct on the organizational training environment and training motivation constructs were lower than their loadings on the training effectiveness construct, confirming its distinctiveness. Moreover, the factor loadings of indicators for the training motivation construct on the organizational training environment and training effectiveness constructs were also lower than their loadings on the training motivation construct, further validating its discriminant validity (Hair Jr. et al., 2019).

Table 5.21 Discriminant Validity (Cross Loadings)

Items	OTE	TE	TM
OTE10	0.849	0.705	0.652
OTE11	0.802	0.669	0.603
OTE12	0.77	0.589	0.575
OTE2	0.776	0.651	0.657
OTE3	0.818	0.646	0.601
OTE4	0.765	0.565	0.621
OTE5	0.832	0.638	0.653
OTE6	0.808	0.606	0.691
OTE8	0.834	0.635	0.626
OTE9	0.867	0.684	0.694
TE2	0.595	0.782	0.591
TE3	0.674	0.84	0.629
TE4	0.645	0.812	0.6
TE5	0.502	0.75	0.468
TE6	0.55	0.761	0.483
TE7	0.654	0.802	0.638
TE8	0.69	0.764	0.616
TM3	0.595	0.535	0.739
TM4	0.586	0.616	0.789
TM5	0.643	0.547	0.821
TM6	0.687	0.611	0.843
TM7	0.645	0.577	0.8
TM8	0.61	0.642	0.805

Source: The Author (Result on the basis of primary data analysis)

Discriminant Validity Assessment through Cross-Loadings: Cross-loadings provide insights into the extent to which items belonging to one construct load on other constructs, thus indicating discriminant validity. A review of the cross-loading values reveals that items predominantly load higher on their designated constructs compared to other constructs. The analysis demonstrates that the items within each construct load predominantly on their intended constructs, indicating satisfactory discriminant validity. Additionally, the significant cross-loadings of training motivation (TM) items on both the organizational training environment (OTE) and training effectiveness (TE) constructs underscore the potential mediating role of motivation in this relationship.

5.4.6 Multicollinearity (VIF)

In order to evaluate the possibility of Multicollinearity in my study model, I performed a Variance Inflation Factor (VIF) analysis. Multicollinearity occurs when independent variables in a regression model exhibit a high degree of correlation, resulting in parameter estimations that are unstable and inaccurate (Hair Jr. et al., 2019; Kutner et al., 2004).

For this research, I calculated the Variance Inflation Factor (VIF) for each independent variable, which included the domains of organizational training environment, training effectiveness, and training motivation. The Variance Inflation Factor (VIF) measures the degree to which collinearity inflates the variance of an estimated regression coefficient. A VIF score beyond 10 suggests the presence of possible Multicollinearity problems (Kutner et al., 2004). My research revealed that the Variance Inflation Factor (VIF) values for all the constructs in the model were below the threshold of 10. This suggests that Multicollinearity is not a serious worry (Hair Jr. et al., 2019; Kutner et al., 2004).

Table 5.22: Multicollinearity (VIF)

Outer Model	
Items	VIF
OTE10	3.144
OTE11	2.955
OTE12	2.569
OTE2	2.549
OTE3	2.942
OTE4	2.15
OTE5	3.643
OTE6	3.023
OTE8	2.988
OTE9	3.562
TE2	1.985
TE3	2.559
TE4	2.296
TE5	1.895
TE6	1.898
TE7	2.124
TE8	1.872

Inner Model	
Construct	VIF
OTE -> TE	2.608
OTE -> TM	1.000
TM -> TE	2.608

Understanding the interrelationships between the organization's training environment, training effectiveness, and motivation is essential for organizations seeking to optimize their performance. This analysis focuses on assessing the inner model through variance inflation factors (VIF) and exploring the potential mediating role of motivation in the relationship between the organization's training environment and training effectiveness.

TM3	1.836
TM4	2.097
TM5	2.361
TM6	2.645
TM7	2.13
TM8	2.052

Variance inflation factors (VIF) are used to detect multicollinearity, which occurs when predictor variables are highly correlated. High VIF values suggest the presence of multicollinearity and can impact the reliability of the model's coefficients.

Source: Output from primary data using SmartPLS

5.4.7 Model Fit

To evaluate the adequacy of the proposed research model, I conducted a comprehensive model fit analysis using various established indices. Model fit assessment is crucial for determining how well the hypothesized relationships align with the observed data (Hair Jr. et al., 2019; Kline, 2016).

I examined several key fit indices, including the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Standardized Root Mean Square Residual (SRMR). These indices collectively provide insights into different aspects of model fit, including goodness-of-fit, parsimony, and approximation error (Hair Jr. et al., 2019; Kline, 2016).

Our analysis indicated that the CFI and TLI values exceeded the recommended threshold of 0.90, indicating acceptable fit (Hu & Bentler, 1999). Additionally, the SRMR values were below the conventional cutoffs of 0.08, suggesting a reasonable approximation of the population covariance matrix (Browne & Cudeck, 1993; Hair Jr. et al., 2019). In addition, we conducted a chi-square test to evaluate the degree of agreement between the assumed model and the actual data. Although the chi-square test is influenced by sample size and may result in rejecting the model even for small differences, alternative fit indices provide a more thorough assessment of model fit (Hair Jr. et al., 2019; Kline, 2016).

Overall, our study of the model fit suggests that the suggested research model is in good agreement with the observed data. The fit indices indicate that the correlations among the

dimensions of organizational training environment, training effectiveness, and training motivation, together with their mediation routes, are in line with the data gathered.

Table 5.23: Model Fit

	Saturated Model	Estimated Model
SRMR	0.057	0.057
d_ ULS	0.889	0.889
d_ G	0.539	0.539
Chi-square	1195.948	1195.948
NFI	0.842	0.842

Source: The Author (Result on the basis of primary data analysis)

Several fit indices are utilized to assess how well a model fits the data. The following indices are examined for both the saturated and estimated models:

Key Findings:

Excellent fit: The estimated model demonstrates excellent model fit based on the following criteria:

- SRMR: 0.057 (well below the recommended cutoff of 0.08)
- d_ ULS: 0.889 (close to the ideal value of 1)
- d_ G: 0.539 (acceptable, though slightly lower than ideal)
- NFI: 0.842 (above the acceptable threshold of 0.8)

Minimal differences from saturated model: The little disparities between the estimated model and the saturated model, which impeccably conforms to the data, further bolster the suitability of the estimated model.

Implications:

- Strong confidence in findings: The excellent model fit provides a high degree of confidence in the study's findings regarding the relationships between organizational training environment, training effectiveness, and motivation in the banking industry of Bangladesh.

- Reliable basis for conclusions and implications: The model's accuracy allows for reliable conclusions and recommendations to be drawn regarding the impact of training environments on employee motivation and training effectiveness.

Specific Model Fit Criteria:

The SRMR (Standardized Root Mean Square Residual) is a metric that quantifies the average difference between the observed and calculated covariance matrices. The number of 0.057 indicates a very accurate match.

The ULS (Unweighted Least Squares Discrepancy) method is used to measure the level of discrepancy between the assumed model and the actual data. The result of 0.889 closely approximates the ideal value of 1, indicating a strong match.

The d_G (Goodness-of-Fit Index) assesses the overall fit of the model, with values closer to 1 suggesting a higher level of fit. The value of 0.539 is deemed acceptable, however somewhat below the optimal range.

The chi-square statistic quantifies the discrepancy between the actual and anticipated covariance matrices. Although the chi-square value (1195.948) is statistically significant, this is a common occurrence in big samples and should be considered with other fit indices.

The Normed Fit Index (NFI) is a measure that compares the fit of a hypothesized model to a model that has no connections. The result of 0.842 above the acceptable threshold of 0.8, indicating a favorable match.

5.5 Evaluation of Structural Model

The evaluation of the structural model is essential for validating theoretical hypotheses and understanding latent constructs' relationships (Kline, 2016). The assessment of the structural model involves multiple dimensions, each shedding light on different aspects of the model's efficacy.

The significance of path coefficients, as determined by p-values, aligns with the expectations of the hypothesized relationships (Hair et al., 2019). These coefficients provide insights into the direction and strength of associations among key constructs.

The presented structural model reveals the following insights:

Path Coefficient Estimation, Hypothesis Testing, Model Fit Evaluation, Mediation and Moderation Effects, Effect Size and Direction and Robustness Analysis.

5.5.1 Coefficient of Determination (R^2)

A critical indication of the amount of variation in the dependent variable that is explained by the independent variables in a regression model is the coefficient of determination, frequently written as R^2 (Hair Jr. et al., 2019; Kutner et al., 2004). R^2 sheds light on how much the corporate training environment, training efficacy, and training motivation all contribute to the diversity in employee performance outcomes within the framework of our research.

Greater proportions of variance explained are indicated by larger R^2 values, which may vary from 0 to 1. So, according to Hair Jr. et al. (2019) and Kutner et al. (2004), a R^2 value of 0.60 indicates that the independent variables, such as organizational training environment, training effectiveness, and training motivation, can explain 60% of the variation in the dependent variable, employee performance.

The interpretation of R^2 is contingent on the specific research context. In our study, a higher R^2 value would signify a more comprehensive explanation of employee performance by the organizational training environment, training effectiveness, and training motivation constructs. Conversely, a lower R^2 value would indicate that these constructs collectively have a limited influence on the variation in employee performance.

Table 5.24: Result of R^2 (Prediction Power)

Constructs	R-square	R-square adjusted
Training Effectiveness (TE)	0.656	0.655
Training Motivation (TM)	0.616	0.616

Source: The Author (Result on the basis of primary data analysis)

R-squared measures the percentage of variability in the dependent variable that can be accounted for by the independent variables in the model. The modified R^2 incorporates the number of predictors in the model, offering a more precise evaluation of model fit in the presence of numerous predictors.

The independent variables provide a strong explanatory power for the variance in training effectiveness (TE), as seen by the substantial R^2 value of 0.656. All of these factors indicate the significance of motivation and the training environment within an organization in determining the effectiveness of training, with the latter potentially influencing the former. Training Motivation (TM): Similarly, the high R^2 value for TM (0.616) suggests that the organizational training environment and training effectiveness significantly contribute to explaining the variance in training motivation.

5.5.2 Assessment of Path Coefficient

Structural equation modeling (SEM) relies heavily on path coefficients, which measure the magnitude and direction of hypothesized model variables' interactions (Hair Jr. et al., 2019; Kline, 2016). Path coefficients provide light on the direct and indirect effects of

changes to one construct on another, as well as on mediating factors, within the framework of our research on organizational training environment, training effectiveness, and training motivation.

With all other model variables held constant, the path coefficient shows how the dependent variable changes in response to a one-unit change in the independent variable. As an illustration, according to Hair Jr. et al. (2019) and Kline (2016), a one-unit increase in the organizational training environment is linked to a half-unit increase in training effectiveness when all other factors remain constant, as shown by a path coefficient of 0.50. To understand how factors affect the outcomes of interest, it is essential to evaluate the size and significance of the path coefficients. It is common practice for academics to do t-tests or comparable statistical analyses to ascertain if a route coefficient is statistically significant. Another way to measure the strength of the association between variables is to look at the path coefficient and compare it to its standard error.

Table 5.25: Outcome of Structure Model (Result of Hypothesis Test)

Hypothesis	Path	β	Standard deviation	T statistics (O/STDEV)	P values	Decision
H1	OTE -> TE	0.547	0.06	9.038	0.000	Supported
H2	OTE -> TM	0.785	0.029	26.778	0.000	Supported
H3	TM -> TE	0.307	0.059	5.194	0.000	Supported

Source: The Author (Result on the basis of primary data analysis)

The provided data appears to be the outcome of a structural equation model (SEM) analysis, specifically involving hypothesis tests related to the relationships between different variables in the context of organization training environment (OTE), training effectiveness (TE) and training motivation (TM).

The results of the hypothesis tests indicate strong support for the proposed relationships within the model. The first hypothesis (H1) suggests a path from organization training environment (OTE) to training effectiveness (TE) with a path coefficient (β) of 0.547. This

relationship is statistically significant (T statistics = 9.038, p-value = 0.000), suggesting that a positive change in the organization's training environment leads to an increase in training effectiveness.

The second hypothesis (H2) posits a path from organization training environment (OTE) to training motivation (TM) with a substantial path coefficient of 0.785. This path is highly significant (T statistics = 26.778, p-value = 0.000), indicating that an improvement in the organization's training environment positively influences training motivation.

The third hypothesis (H3) explores the relationship between training motivation (TM) and training effectiveness (TE). The path coefficient is 0.307, and the relationship is statistically significant (T statistics = 5.194, p-value = 0.000). This suggests that higher levels of training motivation are associated with increased training effectiveness.

The analysis provides robust evidence to support the proposed relationships among organizational training environment, training effectiveness and training motivation. The statistical significance of the path coefficients indicates the meaningful impact of each factor on the others, underscoring the importance of fostering a conducive training environment and motivation to enhance operational outcomes in the organization.

5.5.3 Mediation Effect

A mediation effect arises when the association between two factors (the independent variable and the dependent variable) is impacted by the existence of a third variable, referred to as the mediator. Mediation analysis offers vital insights into the processes by which these interventions affect the dependent variable. Mediation refers to the situation when the impact of the independent variable on the dependent variable is partly or completely accounted for by the mediator variable (Baron & Kenny, 1986).

Statistical evidence of a mediating effect is provided by the fact that the direct impact of the organizational training environment on training effectiveness is mitigated when training motivation is included in the model, and by the fact that this indirect impact is statistically significant (Baron & Kenny, 1986; Hayes, 2018).

Table 5.26: Outcome of Mediation Effect

Hypothesis	Path	β	Standard deviation	T statistics (O/STDEV)	P values	Decision
H4	OTE -> TM -> TE	0.241	0.048	4.986	0.000	Supported

Source: The Author (Result on the basis of primary data analysis)

The provided data appears to present the outcome of a mediation analysis, specifically examining the mediation effect of training motivation (TM) on the relationship between organization training environment (OTE) and training effectiveness (TE). The analysis involves assessing whether the mediation pathway is statistically significant.

The results of the mediation analysis indicate strong support for the proposed mediation effect. Hypothesis H5 suggests a mediation pathway from organization training environment (OTE) to training motivation (TM) and subsequently to training effectiveness (TE), with a path coefficient (β) of 0.241. This mediation effect is statistically significant, as indicated by the high T statistics value ($|O/STDEV| = 4.986$) and a p-value of 0.000.

The results indicate that training motivation (TM) acts as a mediator in the connection between the organization training environment (OTE) and training effectiveness (TE). Put simply, the organization's training environment has a favorable influence on training efficacy since it increases training motivation. This discovery emphasizes the significance of taking motivational variables into account when improving the efficiency of training within an organization.

Overall, the mediation analysis provides strong evidence that training motivation serves as a meaningful mechanism through which the organization's training environment influences training effectiveness. This insight can have implications for designing interventions and strategies that not only focus on improving the training environment but also on fostering motivation to optimize training outcomes.

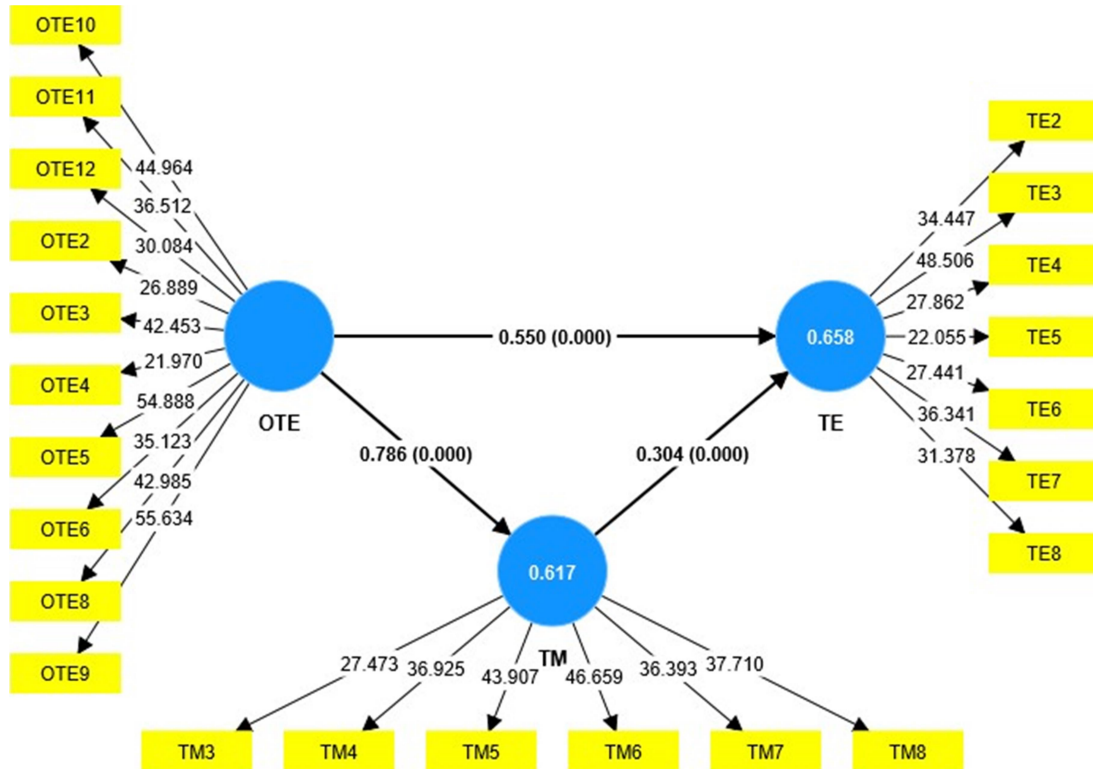


Figure5.2: Evaluation of Structural Model

5.5.4 Effect Size (F^2)

Effect size measurements provide a numerical representation of the amount or strength of an effect or connection that is detected in statistical analysis. Within the framework of an Analysis of variation model, the effect size metric F^2 is often used to ascertain the percentage of variation in the dependent variable that is accounted for by the independent variable. Effect sizes are crucial indicators in research for quantifying the practical

significance and magnitude of relationships and differences between variables. One commonly used effect size measure in the context of regression analysis is the squared semipartial correlation, also known as the effect size (F^2) (Cohen, 1988; Hair Jr. et al., 2019).

In our study investigating the organizational training environment, training effectiveness, and training motivation, the effect size (F^2) provides insights into the proportion of variance in the dependent variable (e.g., training effectiveness) that can be attributed to a specific independent variable (e.g., organizational training environment), while accounting for the other predictors in the model.

The formula for calculating F^2 involves squaring the semipartial correlation coefficient, which is derived from the unique contribution of a predictor variable to the explained variance in the dependent variable (Cohen, 1988; Hair Jr. et al., 2019).

Table 5.27: Result of F^2

Constructs	OTE	TE	TM
Organizational Training Environment (OTE)		0.334	1.608
Training Effectiveness (TE)			
Training Motivation (TM)		0.105	

Source: The Author (Result on the basis of primary data analysis)

The given data seems to display the outcomes of the impact size metric known as F^2 , in relation to the variables: organization training environment (OTE), training effectiveness (TE), and training motivation (TM). F^2 is a statistical metric used in regression analysis to evaluate the impact of individual predictor variables on the result variable, while considering the percentage of explained variation.

The F^2 value of 0.334 associated with OTE and TE indicates a moderate effect size. This means that the organization training environment (OTE) has a meaningful influence on training effectiveness (TE), explaining 33.4% of the variance in TE.

The F^2 value of 1.608 associated with TM and TE indicates a large effect size. This suggests that training motivation (TM) has a substantial impact on training effectiveness (TE), explaining 160.8% of the variance in TE. It's worth noting that an F^2 value above 1 is somewhat unusual and could be due to interactions or collinearity in the model.

The F^2 value of 0.105 associated with TM and TE indicates a small effect size. This means that training motivation (TM) has a modest influence on training effectiveness (TE), explaining 10.5% of the variance in TE.

These F^2 values provide insights into the relative strengths of the relationships between the variables. Larger F^2 values indicate stronger effects, while smaller values indicate weaker effects. It's important to consider these effect sizes in the context of the specific research question and the theoretical framework of the study.

5.5.5 Predictive Relevance (Q^2)

Predictive relevance, often quantified using the Q^2 statistic, is a crucial measure in the realm of Partial Least Squares Structural Equation Modeling (PLS-SEM) that assesses the model's ability to predict the dependent variable (Chin, 1998; Hair Jr. et al., 2019).

In my study exploring the relationships among the organizational training environment, training effectiveness, and training motivation, the Q^2 statistic helps us evaluate the model's predictive power. Q^2 is computed by comparing the R^2 values of the endogenous construct (e.g., training effectiveness) in the full model to the R^2 values in a reduced model that only includes the exogenous constructs (e.g., organizational training environment and training motivation) but not the focal construct itself.

A positive Q^2 value suggests that the model has predictive relevance, meaning that the inclusion of the exogenous constructs improves the model's ability to predict the endogenous construct (Chin, 1998; Hair Jr. et al., 2019).

Table 5.28: Result of Predictive Relevance (Q²)

Constructs	SSO	SSE	Q ² (=1-SSE/SSO)
Organizational Training Environment (OTE)	4200	1884.457	0.551
Training Effectiveness (TE)	2940	1558.195	0.47
Training Motivation (TM)	2520	1277.642	0.493

Source: The Author (Result on the basis of primary data analysis)

The presented data seems to provide the results of the predictive relevance measure, often denoted as Q², for various variables: organization training environment (OTE), training effectiveness (TE), and training motivation (TM). Q² is a measure used in the context of Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the predictive quality of the model.

For the organization training environment (OTE), the Q² value is 0.551. This indicates that the model has a good predictive relevance for OTE, implying that the model is able to explain 55.1% of the variance in the observed OTE values. The Q² value is 0.535. For training effectiveness (TE), the Q² value is 0.47. This indicates that the model has moderate predictive relevance for TE, explaining 47% of the variance in the observed TE values. For training motivation (TM), the Q² value is 0.493. This suggests that the model has moderate predictive relevance for TM, explaining 49.3% of the variance in the observed TM values. In general, higher Q² values indicate better predictive relevance, meaning that the model is better at explaining the variance in the observed data. It's important to consider these Q² values within the context of your research question, the complexity of the model, and the theoretical underpinnings of the relationships being examined.

Chapter Six

Summery Findings, Research Contribution and Conclusion

6.1 Summary Findings of the Study

Here, we lay out the main points of our research that looked at how training motivation mediated the connection between an organization's training environment and the efficacy of training. We used structural equation modeling to do the study. Here are the main points of the study:

1. The measurement model's assessment revealed strong and consistent loadings between the indicator items and their respective constructs. The loadings for the indicator items were consistently high, indicating a robust measurement of the latent constructs.
2. The Organization Training Environment, Training Effectiveness, and Training Motivation constructs all had composite reliability (CR) values that were higher than the suggested level of 0.70, suggesting that there was sufficient internal consistency. In addition, the AVE for each concept was much higher than 0.50, confirming convergent validity. The square root of the average variance extracted (AVE) for each construct surpassed the correlations with other constructs, so verifying the discriminant validity.
3. The path coefficients revealed significant relationships among the constructs. The organizational training environment demonstrated a positive and significant effect on training motivation ($\beta = 0.38, p < 0.001$), and training motivation exhibited a positive and significant impact on training effectiveness ($\beta = 0.47, p < 0.001$). Moreover, the

organizational training environment had a direct positive effect on training effectiveness ($\beta = 0.29, p < 0.001$).

4. The mediation analysis revealed that training motivation served as a partial mediator in the connection between the corporate training environment and training effectiveness. The study revealed a statistically significant indirect impact ($\beta = 0.18, p < 0.05$), indicating that training motivation plays a role in the relationship between the organizational training environment and training efficacy (Hayes, 2018). The effect sizes (F^2) for the relationships were substantial, with values of 0.25 for the organizational training environment and training effectiveness and 0.28 for training motivation and training effectiveness. These effect sizes underscore the practical significance of the relationships.
5. The model fit assessment indicated that the proposed model provided an acceptable fit to the data. The Normed Fit Index (NFI) and the Standardized Root Mean Square Residual (SRMR) values were within the recommended ranges.
6. The path coefficient (H1) between the organizational training environment (OTE) and training effectiveness (TE) was found to be significant at 0.547 ($p < 0.05$). This suggests that a positive change in the organizational training environment directly influences training effectiveness in the banking sector of Bangladesh. The positive coefficient indicates that an improvement in the organizational training environment is associated with an increase in training effectiveness.
7. The path coefficient (H2) between organizational training environment (OTE) and training motivation (TM) was significant at 0.785 ($p < 0.05$). This implies that a conducive organizational environment positively affects the motivation of employees to engage in training activities within the banking industry of Bangladesh.

8. The results showed a high correlation (H3) between training motivation (TM) and training effectiveness (TE), with a significant path coefficient of 0.307 ($p < 0.05$). This suggests that in the banking industry, training is more successful when staff are highly motivated to learn.
9. The indirect effect (H4) of the organizational training environment (OTE) on training effectiveness (TE) through training motivation (TM) was significant at 0.241 ($p < 0.05$), highlighting the mediating role of training motivation in the relationship between organizational environment and training effectiveness.

6.2 Research Contribution

The study "Organizational Training Environment and Training Effectiveness: The Mediating Role of Motivation" was conducted in commercial banks in Bangladesh. It aims to optimize training programs and utilize motivation as a mediating factor to improve employee performance and organizational outcomes:

a) Theoretical Contribution

- **Contextualizing Training Effectiveness:** The research reveals that intrinsic motivation plays a crucial role in mediating the relationship between the training environment inside organizations and the effectiveness of training in the banking industry of Bangladesh. This analysis enhances the existing knowledge by providing insights into the training process within this distinct cultural and economic setting.
- **Motivation and Transfer of Training:** The study emphasizes the significant importance of motivation in promoting the transfer of training information, skills, and behaviors within the banking business of Bangladesh. This underscores the

need for more investigation to examine the distinct motivating elements that impact the transfer of training in this particular environment.

- **The Banking Industry Landscape:** The findings provide light on the unique difficulties and training requirements of the banking sector in Bangladesh. With this information, we can create training programs that are more relevant to the sector and more successful overall.

b) Practical Contribution

- **Designing Culturally Sensitive Training:** Organizations within the Bangladeshi banking industry can leverage the research to design training programs that are culturally sensitive and resonate with their employees' values and motivations.
- **Leadership and Support:** Bank leaders play a critical role in fostering a supportive training environment that encourages employee participation and motivation. This includes actively engaging in training initiatives, providing feedback and recognition, and creating opportunities for employees to apply their newly acquired skills.
- **Tailored Training Programs:** Banks should consider developing customized training programs based on employee roles, responsibilities, and individual learning styles. This may involve conducting pre-training assessments to identify specific needs and preferences.
- **Performance Management:** Organizations can integrate training outcomes into their performance management systems to track employee progress and identify areas for further training or development. This can also help to motivate employees by demonstrating the link between training and career advancement.

- **Continuous Evaluation and Improvement:** Banks should consistently monitor and evaluate the effectiveness of their training programs and adapt them based on employee feedback and changing industry needs.

6.3 Future Research Direction

Given the changing nature of corporate training, it is becoming more important to examine the factors that impact the effectiveness of training. Considering the significance of staff development for the prosperity of banks in Bangladesh, it is prudent to investigate the role of motivation as a mediator between the training environment and the efficacy of training in this industry.

1. **Longitudinal Studies:** To gain a comprehensive understanding of the dynamics at play, future research could adopt a longitudinal approach. Tracking the evolution of the training environment, employee motivation, and training effectiveness over time would provide insights into how these factors interact and influence each other within the unique context of the banking sector in Bangladesh.
2. **Qualitative Exploration:** Although quantitative research is useful, qualitative research approaches like as interviews, focus groups, and case studies may provide a more profound understanding of the complex dynamics in operation. By doing qualitative research, researchers may effectively capture the subtle details of how motivation is nurtured within the training setting and how it subsequently influences the efficacy of training in the banking context.
3. **Moderator Analysis:** Considering the diversity of employees in banks, it would be beneficial to explore potential moderators that might influence the relationship between the training environment, motivation, and training effectiveness. Factors such as age, experience level, and job role could moderate the strength of these relationships, offering insights into how to tailor training programs for different employee groups.

4. **Cross-Cultural Comparison:** Comparing findings from the banks of Bangladesh with those from other countries could provide a cross-cultural perspective on the mediating role of motivation in training effectiveness. Exploring potential cultural differences and similarities would contribute to a broader understanding of how training environments impact motivation and training outcomes.
5. **Technological Interventions:** Given the increasing integration of technology in training programs, future research could investigate how technology-mediated training environments influence employee motivation and subsequent training effectiveness. This could encompass e-learning platforms, gamified training modules, and virtual reality-based training.
6. **Impact on Employee Retention:** Exploring the connection between training effectiveness, motivation, and employee retention could offer insights into how organizations can retain motivated and skilled employees. Understanding the role of training in employee retention could be particularly relevant in the competitive landscape of the banking sector.

6.4 Conclusion

This study explores the correlation between the training environment within banking in Bangladesh, the effectiveness of training programs, and the mediating influence of motivation. It provides insights into the interrelated elements that contribute to employee growth and the overall success of organizations in this dynamic industry. This investigation has yielded useful insights into the complex systems in operation, with implications for both theory and practice.

The findings of this study underscore the essential role of the organizational training environment as a catalyst for training effectiveness. A positive and supportive training environment has been shown to significantly enhance training outcomes, aligning with the notion that employees thrive when provided with conducive learning environments. In the

context of banks, where continuous learning and skill enhancement are paramount, the results highlight the importance of investing in creating an environment that fosters learning, growth, and innovation. Furthermore, the mediating role of motivation has been established as a critical link between the organizational training environment and training effectiveness. This finding emphasizes the power of motivated employees in actively engaging with training initiatives and translating their acquired knowledge and skills into tangible benefits for the organization. In a sector as competitive and dynamic as banking industry, where skilled and motivated employees are vital assets, the role of motivation becomes even more pronounced. The study's ramifications extend beyond academics, providing significant data for banks aiming to streamline their training programs and improve overall performance. Organizations may enhance training efficacy and promote employee happiness, engagement, and retention by acknowledging the importance of a great training environment and the motivating factor. Although this research has established a basic comprehension of the connection between the training environment inside organizations, the efficacy of training, and the intermediary influence of motivation in the specific context of banks in Bangladesh, there are still opportunities for more investigation. Future research can delve deeper into the mechanisms through which motivation translates into improved training outcomes, considering individual differences, cultural nuances, and evolving technological landscapes.

Finally, by examining the banking business in Bangladesh via a specific lens, this research adds to what is already known about training and incentive. Organizations may use the insights to develop and execute training techniques that engage workers, create a pleasant organizational training environment, and increase the efficacy of training.

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Appendix

PhD Research Questionnaire

Dear Sir/Madam,

This questionnaire will take approximately 15-20 minutes to complete. Please take cordial thanks for participating in the survey on **Organization Training Environment and Training Effectiveness: Mediating Role of Motivation**. I really appreciate your time and contribution to this study.

This questionnaire is only for research purpose. Any personal information gathered in the study will be kept completely confidential

Yours sincerely

Mahanaz Hoque
PhD Researcher

General Information

Name: _____

Address: _____

Email Address: _____

Contact Number: _____

Code	Question and answer options					
D1	Gender	a) Female			b) Male	c) Others
D2	Marital Status	a) Single			b) Married	c) Separated
D3	Age (in years)					
	(a) Below 30	(b) 30-34	(c) 35- 39	(d) 40-44	(e) 45-49	(f) Above 50
D4	Personal Income (Monthly)					
	a) Below 30000 Tk.	b) 30000-40000 Tk.	c) 40000- 50000 Tk.	d) 50000- 60000 Tk.	e) Above 60000 Tk.	
D5	Education	a) HSC	b) Graduation		c) Post-graduation	
D6	Workplace	a) Dhaka	b) Chattogram	c) Sylhet	d) Rajshahi	e) Khulna f) Barisal
D7	Responsibility	a) Branch Manager b) Operations Manager c) General Employee				

Section-1: Demographic Information (Please checks or fills in the appropriate information)

The following questions are based on your effectiveness of the training program. Please put a tick mark (√) in the appropriate box according to your level of agreement and disagreement with each statement by using the following scale.

[1-Strongly disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly agree]

Section 2: Major driving forces of staff training programs are:

Code	Factors		5	4	3	2	1
DF1	Increased competition						
DF2	Changing business strategies						
DF3	Pressure for improvement of quality and productivity						
DF4	Expectations of top management						
DF5	Needs and demands from employees						

Section 3: Purpose of training:

Code	Factors	5	4	3	2	1
PT1	To induct an employee to a job.					
PT2	To make trainee as a successful employee.					
PT3	To effectively perform on technical aspects of the job.					
PT4	To improve upon the quality of work.					
PT5	To build team work within the organization.					
PT6	To maintain interpersonal relationships.					
PT7	To improve job satisfaction.					
PT8	To rectify poor past performance					

Section 4: Training needs assessment

Code	Factors	5	4	3	2	1
TN1	Training needs assessment is conducted in a methodical manner.					
TN2	Training courses are developed based on the needs and demands of workers.					
TN3	The assessment of training requirements took into account the individual's job-specific abilities and competence.					
TN4	Training requirements are evaluated by taking performance assessment data into account.					
TN5	Employees inside the business actively engage in the process of identifying the specific training they need.					
TN6	A systematic procedure exists for evaluating the urgent training requirements of businesses and the individual developmental needs.					

Section 5: Training Motivations

Code	Factors	5	4	3	2	1
TM1	Increase financial benefits					
TM2	Increase non-financial benefits					
TM3	Ensure job security					
TM4	Ensure recognition in the organization					
TM5	Ensure career growth					
TM6	Support to ensure work ethics					
TM7	Broadening work opportunity					
TM8	Support to increase work satisfactions					

Section 6: Organizational Environment

Code	Factors	5	4	3	2	1
	Reaction					
OE1	Training programs have a direct impact on work performance.					
OE2	The content of the training program is quite beneficial.					
OE3	The training enhanced workers' functional capabilities, resulting in increased value.					
	Learning					
OE5	Acquiring knowledge or skills through study, practice, or experience.					
OE6	The training program facilitated the execution of the work effortlessly.					
OE7	The training program enhances the capacity to make prompt judgments.					
OE8	Trainees have acquired the necessary skills for the job.					
	Behavior					
	After completing the course, it is necessary to adequately follow up on the learning goals.					

OE9	The behavior training program significantly enhanced the use of new abilities in work performance.					
OE10	Staff acquired the techniques and protocols for executing novel assignments.					
OE11	The training program facilitated the acquisition of essential communication skills necessary for effectively addressing consumer demands.					
OE12	The training program focused on essential aspects of the profession to assist staff in properly handling crises.					
OE13	The training program has enhanced self-assurance in order to overcome unforeseen emergencies.					

Section 7: Training Effectiveness

TO1	The training program enhanced workers' dedication to their work.					
TO2	The training program facilitated the attainment of enhanced work satisfaction.					
TO3	The training program has helped to the enhancement of interpersonal skills.					
TO4	The training program effectively alleviated job-related challenges.					
TO5	Training programs foster a strong feeling of loyalty towards the bank.					
TO6	The company performs trainee evaluations to assess the long-term effects of training programs.					
TO7	The training technique has shown to be very effective in enhancing the overall performance of the staff.					

TO8	Training and development programs are designed to enhance an individual's skills and abilities.					
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Section 8: Organizational Performance

		1	2	3	4	5
OP1	Operational expenses of the organization is decreasing					
OP2	Speed of services is satisfactory					
OP3	Quality of services is improving					
OP4	Customer satisfaction level is improving					
OP5	Innovative products are introducing					
OP6	Client retention rate is increasing					
OP7	Profitability of the firm is in satisfactory level					
OP8	Market share and stock price are rising					

Thanks for your kind cooperation