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COST ACCOUNTING IN BANGLADESH: USE, VALUE, OBSTACLES,  
AND EDUCATION NEEDS

by

S. M. EBADUL ISLAM, MCOM, CMA

A DISSERTATION

Presented to the Faculty of the University of the Incarnate Word  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF THE INCARNATE WORD

August 2015

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## ACKNOWLEDGEMENTS

My sincere appreciation to my dissertation chair, Dr. Richard Gray, for ongoing guidance with incredible patience, encouragement, and support that made this journey successful. To my committee members—Dr. Patricia Watkins, Dr. Dorothy Ettling, and Dr. Joseph W. Eyles—thank you for providing me with invaluable suggestions and helping me in the completion of my dissertation. I thank Dr. Patricia Watkins again, who showed me the light and brought such a lifetime program to my life and the opportunity to grow. Also, though Dr. Dorothy Ettling has left her body, I think she is still with us, alive in spirit in our memories.

I still remember the eternal support of my classmate and friend, Dr. Diane Erwin. I think, though she has left her body, she is still with us in our memories.

Furthermore, I would like to express my gratitude to Mr. Abul Kalam Mazumdar for his permission to use his survey instruments.

I thank Ilene W. Devlin for her editing services in manuscript submittal preparation.

I want to acknowledge my mother, Mozida Ismail, and relatives who pray all the time for my success, especially my father, Sheikh Ismail Hossain, who showed me the light of education for a glorious future during my boyhood.

And last, but certainly not least, to my wife, Sk Nusrat Islam, and my two daughters, Owishee Islam, and Owisharza Islam, I owe a huge debt and gratitude for their sacrifice,

## ACKNOWLEDGEMENTS—Continued

support, unvarying belief in my ability to be successful, and encouragement to me to challenge myself. I could not succeed without them. Thank you from the very bottom of my heart.

S. M. Ebadul Islam

## DEDICATION

This project is dedicated to my spiritual father, Khaza Abul Hasan Chisty. I am grateful to him for encouraging me at all times, staying with me as a saint who helps me to rectify my way through life. He still shows me the ways to follow in order to accelerate the realization of His creation.

## COST ACCOUNTING IN BANGLADESH: USE, VALUE, OBSTACLES, AND EDUCATION NEEDS

S. M. Ebadul Islam, PhD

University of the Incarnate Word, 2015

Many business organizations in Bangladesh struggle for survival, not only due to poor quality products or bad service, but because executives lack the appropriate managerial tools necessary to control the businesses and to set strategic goals. Cost accounting is a vital tool to achieve greater efficiency for developing businesses. The purpose of this study was to identify the present level of use of cost accounting by the nature and type of organizations in the main cities of Bangladesh to improve use of cost accounting. The research identified the need for and the areas of current problems and prospects of use of cost accounting. This study also attempted to determine the level and nature of educational skills required effectively to apply cost accounting.

The research used a descriptive qualitative method with two parts: (a) descriptive and demographic questionnaires investigated the current level of use of cost accounting, its importance, and current obstacles and prospects; and (b) interview questions identified the importance for and need of cost accounting, plus the required education effectively to apply cost accounting in business enterprises in Bangladesh. The results showed that the use of cost accounting was not up to expectation due to the present obstacles: an absence of statutory requirement, a lack of appreciation of its importance, and a lack of qualified manpower. Interview data found that cost accounting was vital to serve management's strategic planning and informational needs, but was often inadequate or lacking in businesses. Business departments in

colleges and universities offered cost accounting courses in graduate and master's programs, but they were inadequate to provide in-depth knowledge in cost accounting. Educational institutes were not providing practical training as needed for business organizations in Bangladesh.

Findings showed that cost audit should be mandatory for the development of businesses, and more help should be provided to improve cost accounting education and training in the country. Implications of the findings were discussed and recommendations made for business practices and education, as well as future research opportunities, in Bangladesh.



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## **Chapter 1: Cost Accounting in Bangladesh: Use, Value, Obstacles, and Education Needs**

### **Background and Need for the Study**

Bangladesh is a very densely populated country. Bashar and Rashid (2012) described Bangladesh as squeezing “its population of roughly 160 million into an area of 148,393 square kilometres” ( p. 152). Due to the large population in such a small country impedes the country’s economic development. “Bangladesh is a developing country having more than 160 million people, and every government is striving relentlessly to attain rapid economic development in the country,” reported Uddin and Sultana (2013, p. 20).

A large number of people live below the poverty line (Imai & Azam, 2012). The country’s poverty is not reducing because it has a higher growth of population with a lower growth of GDP (gross domestic product). “Poverty has always been a fundamental concern of development planning in Bangladesh” (Bashar & Rashid, 2012, p. 152). Poverty is the major concern for the economic development of the country. The country needs to utilize its limited resources to increase the current GDP to reduce the poverty level. Islam (2005) noted, “the country is now desperately trying to achieve its economic development and growth with an objective to break the chain of poverty and building the country as a prosperous one” ( p. 10). But to achieve this goal, the country needs to decrease the poverty level by utilizing its limited resources.

Due to very limited resources in Bangladesh, increased productivity is essential. Winford (2006) reported,

in developing countries, Small and Medium Enterprises (SMEs) traditionally play an important role with respect to poverty alleviation, while at the same time contributing significantly to economic growth as the development initiatives targeted at them create jobs and increase productivity” ( p. 36).



Productivity is the ratio of inputs to outputs, wherein inputs are the costs or sacrifices made to obtain certain goods or services. Costs, thus, are associated with all types of inputs used in organizations, services, businesses, retail, and manufacturing. In that case, cost accounting is applicable to all types of organizations. “This costing is not important only for the privately owned companies [*sic*] rather it is equally important for the publicly owned companies” (Haque & Sharif, 2013, p. 6). By using cost accounting, the cost accounting department can control the cost to reduce the sale price to extend the product market in both domestic and global trade. But, “till [*sic*] today, a considerable number of organizations both in public and private ownership could be found that, despite their millions of dollars involved in operation, do not have any accounting system at all” (Mazumdar, 1994, p. 1). As they do not have proper accounting systems in use in their organizations, few businesses use cost accounting—the extended branch of accounting. This poor use or nonuse of cost accounting has caused the need for this study’s investigation into its present state of practice, limitations, and prospects.

### **Context of the Study**

“Entrepreneurship is more than the mere creation of business” (Kuratko, 2005, p. 578). Entrepreneurship is a dynamic process of vision and creation in the business world. Nawaz (2009) noted, “entrepreneurship is the key to the creation of new enterprises that energize and rejuvenate the economy” (2009, p. 13). For the economic development of a country, it needs to increase dynamic entrepreneurs to grow more business enterprises. “Since the beginning of the 1980s, interest in entrepreneurship and small business enterprises has been growing around the world” (Klofsten, 2000, p. 337). During the end of 1980s, that interest had been particularly widespread in Bangladesh. According to Moazzem (2008),

the economic development of Bangladesh in the last three decades is the resultant effect of structural change in the economy leading towards considerable growth of the

manufacturing and service sectors, various reforms of domestic economic policies, changes in international policies, and in this process the emergence of a group of entrepreneurs. (p. 2)

Professorships in entrepreneurship at government and private universities are being created. Some new courses in the subject are being introduced, and different training programs for entrepreneurs are being developed for the younger generation. Still, most business enterprises in Bangladesh are being run in a very traditional way due to the low literacy rate and the high inland demand. “In a country such as this, with an ever increasing population, an average life span of only 56 years, a literacy rate below 37%, and the majority of the population under the age of 16,” the result is not enough economic growth (Jamil & Ahmed, 2006, p. 25).

“In the present time of tough competition and global business perspective, decision making has become complex and challenging” (Bhuiyan, 2014, p. 41). In this situation, the country needs to take the right steps to move forward with the challenging global market. Foreign trade is important to the economic development of Bangladesh. The country’s import needs are large, and the imperative to increase exports is immediate. In order to finance these imports and also to reduce the country’s dependence on foreign aid grants, the government, since liberation, has been trying to enhance foreign exchange earnings through planned and increased exports.

“In order to achieve higher economic growth, change should be brought into the businesses to cope up [*sic*] recent trade in global business” (Uddin & Sultana, 2013, p. 20).

Against the backdrop of the changed global trade scenario, Bangladesh has set new strategies to promote both domestic and international trade to cope with the globalization process.

“Bangladesh has made impressive economic and social progress in the past decade,” reported Azam (2012, p. 5). In view of the economic slow-down worldwide, the country needs to increase

exports of agro-based products, poultry, information and communication technology, and light engineering products in large volume by controlling its cost of product, in addition to the usual export items, to get over the crisis. But since the literacy rate in Bangladesh is below 37%, most business people are conducting business in the traditional way. They do not know how to function as producers and consumers in today's global society. In fact, success in today's challenging business world depends on an executive's skill. To cope with the changing economic development, the role of financial managers should be more demanding than ever before and constantly changing. To update the information for managerial decision making, cost accounting is one of the vital tools to achieving greater efficiency for developing business enterprises. "Appropriate costing of a product is essential for taking appropriate managerial decisions" (Alam, 2012, p. 16). Cost accounting determines the appropriate cost of a product. "Costing is the technique and process of ascertaining cost" (Sharker, 2008, p. 15). By using cost accounting, the cost accounting department can control the cost for reducing the sale price of the respective products, and that may help to reduce imports, as well as raise the volume of exports by offering a competitive price in the global market. Therefore, the entrepreneurs related to national or international business need to have required cost accounting education in order to secure successful business positions.

"The rapid speed of globalization and fierce competitive contest are highlighting more and more the importance of making fast and timely decisions in a company" (Grondskis & Sapkauskiene, 2011, p. 48). The need for required business education is a result of the increasing economic integration across national boundaries. Therefore, global business education is required for intensifying economic development. Calantone and Zhao (2001) pointed out, "when motivated by competition, foreign partners are more likely to exercise control over joint ventures

to reduce risk, minimize conflict, gain market power, and improve competitiveness by applying their advanced production and management technology” (p. 17). The role played by business education is even more important today than previously. This has forced literally all business schools to refocus and inject into their curricula a more professional-oriented focus. “Educated entrepreneurs can discharge the entrepreneurial responsibilities effectively. They can take risk more easily and have access to information regarding entrepreneurial activities” (Nawaz, 2009, p. 8). To meet the challenges of business globalization and to ensure the economic competitiveness of Bangladesh, it is vital that its future business leaders be equipped with appropriate knowledge and skills for managing their business in this challenging environment, and professionals in cost accounting can meet the challenge.

### **Statement of the Problem**

“Globalization is in fast-forward, and the world’s ability to understand and react to it is in slow motion” (Scholte, 2000, p. 1). As business continues to move toward increased internationalization or globalization, many changes are taking place that require a different set of skills and knowledge to operate successfully. Emerging trends and skills must be researched and evaluated to improve the accounting field under the business education programs. Business educators need constantly to reevaluate their teaching methods and to develop their current course content and overall curriculum in order to keep up with changing times.

The education system in Bangladesh is primarily theoretical rather than practical in its approach. “In the present curriculum teaching is mainly theory-based rather than practical” (Entrepreneurship Development through Educational Reform, 2013, p. 5). Students usually do not get any chance to apply their learning or to prove their skill in their respective field in their educational tenure. Therefore, they do not even know if they achieve the proper capability to

handle the competitive market. “The education system in Bangladesh still remains far behind approaching toward a knowledge-based society” (Khan, Rana, & Haque, 2014, p. 2). There is no sufficient formal education system for older pupils in Bangladesh. Only traditional college-age students receive appropriate education to meet current issues. Educational institutions need to develop special teaching and training programs with course content and overall curriculum of business education for the current entrepreneurs and personnel as irregular (discontinued) students.

### **Purpose of the Study**

The purpose of this study was to identify the present level of use of cost accounting by nature and type of organizations in Bangladesh. The research attempted to identify the need, as well as the areas of current problems and prospects, of use of cost accounting. This study also attempted to determine the level and nature of educational skills required in order effectively to apply cost accounting.

### **Research Questions**

Specifically, this study attempted to answer the following research questions:

1. What is the level of use of cost accounting in Bangladesh by nature and type of organization?
2. What are the users’ perceptions of the importance and need of cost accounting procedures?
3. What are the users’ perceptions of use of cost accounting and possible obstacles?
4. What are the users’ perceptions of education needed in order to meet cost accounting needs in Bangladesh?

## Methodology

The study utilized the descriptive qualitative research design to investigate the present level of use of cost accounting in Bangladesh and to identify the level of educational skill required to apply cost accounting in business organizations. The study investigated the areas of prospects and obstacles of use of cost accounting in Bangladesh.

Data collection in this study consisted of two parts. First, a descriptive questionnaire including demographic questions was utilized to investigate the level of cost accounting use in Bangladesh and possible obstacles by different nature and type of organizations. Second, the open-ended interview questions were utilized to collect data to identify the prospects of use of cost accounting and required education in order to meet cost accounting needs in business enterprises in Bangladesh.

## Definition of Terms

**Financial accounting.** “Financial Accounting is concerned with the recording of transactions for a business enterprise or other economic unit and with the periodic preparation of various statements from such records” (Fess & Warren, 1985, p. 2). First, financial accounting reports financial activities based on the past financial activities and the primary requirements of external persons to the enterprise, such as shareholders, creditors, and the general public. Second, these reports are also important for management to manage that particular business enterprise.

**Cost accounting.** Cost accounting is the analyzing of cost for cost control, as well as ascertainment of profitability according to product or department of the enterprise. Banerjee (2012) defined cost accounting as “a quantitative method that accumulates, classifies, summarizes and interprets financial and non-financial information for three major purposes, viz,

- Ascertainment of cost of a product or service;

- operational planning and control; and
- decision-making.” ( p. 7)

**Cost.** “Accountants have defined cost as an exchange price, a forgoing, a sacrifice made to secure benefit” (Matz & Usry, 2003, p. 14). The term “cost” is frequently used synonymously with the term “expense,” and an expense may be defined as a measure of outflow for any goods or services.

**Management accounting.** The concept of management may be defined as giving orders, creating policies, providing work, and making decisions. “Managerial accounting employs both historical and estimated data, which management uses in conducting daily operations and in planning future operations” (Fess & Warren, 1985, p. 2).

**Cost audit.** Authenticity of information provided in the annual report is the prime objective of the financial audit. The same is true of cost audit. Doval (2007) noted,

cost audit is the process of ascertaining whether the production, marketing and sales process, as well as other aspects of a business, are managed in the most cost-effective manner. This is essentially an internal audit and is carried out as a tool to optimize management efficiency (p. 28).

**Entrepreneur.** According to Bhattacharyya (2006), “an entrepreneur is often defined as one who starts *his own, new, and small business*” (p. 107). In general terms, entrepreneurs are people who have the skills to take opportunities and make them profitable by making the right decisions. “The people who accept the opportunities and risks involved in creating and operating businesses are entrepreneurs” (Griffin, Ebert & Starke, 2008, p. 7). Similarly, “an entrepreneur is a person who is willing to innovate and take risks in the pursuit of business opportunities” (Starke & Sexty, 1998, p. 4). Therefore, an entrepreneur is a person who organizes and manages any enterprise, especially a business, with considerable initiative, risk, and skills to take new

ideas to market and to make the right decisions to make the ideas profitable, by identifying and exploiting new products, processes, or markets.

### **Significance of the Study**

“In a competitive market, where executives are scrutinized over every single decision, businesses need to gain a competitive advantage to maintain continued success in the industry” (Kwan, 2011, p. 1). For the continuous success of an industry, the executives need effective information systems that can help them to make proper decisions. The cost accounting department of organizations can provide a variety of necessary information. “Within the accounting information system, the cost management system exists to provide reliable information to users inside the company” (Kwan, 2011, p. 1). Therefore, cost accounting is significant for the success of an organization, and the use of cost accounting should increase for the continuous success of organizations as its contribution increases incomparably. “Of late, the boundaries of cost accounting have increased tremendously. It now refers to the gathering and providing of information for decision needs of all sorts” (Debnath, 2012, p. 24).

“The business environment in Bangladesh characterised by pervasive corruption, lack of rule of law and poor regulatory quality is allowing and offering opportunities for businesses to be socially irresponsible rather than being socially responsible” (Azmat, 2008, p. 7). In such situations in a country, there are many obstacles to develop business enterprises. As economic growth of a country depends on entrepreneurship development, the respective country needs to overcome the present obstacles for its entrepreneurship development.

Some of the results of this study address research questions 1, 2, and 3, and will benefit businesses, cost accounting departments, decision makers, and business educators in the following ways:



- The results of this study will raise awareness of the importance of use of cost accounting in regard to the growth of business, as well the economic development, in the country.
- The results of this study will increase the level of use of cost accounting in business enterprises by perceiving all present obstacles to its use.

“Business education’s traditional goals have been to prepare students to enter and advance in jobs within business, to prepare them to handle their own business affairs and to function intelligently in a business economy” (Monkiewicz, 1986, p. 3). However, now the role of financial manager in business organizations has changed. “In a fiercely competitive business environment like today, management accountants are bestowed with greater responsibilities than traditional accountants and their job descriptions have been re-engineered” (Ahmed & Haque, 2013, p. 8). Business educators need to rethink the curriculum they offer and to prepare students to meet today’s challenges resulting from globalization. “In the business school of the future, students need and demand a different style and knowledge that is responsive to the market” (Khan, 1983, p. 4).

The internationalization of business is an unavoidable trend. Globalization has brought many changes in business practices and, thus, impacted business education programs. Although most entrepreneurs are not doing international business, they are still a part of the vast international marketplace, because home trade is always related to foreign trade since Bangladesh’s import needs are large. By using cost accounting, the cost accounting department can control the cost to reduce the sale price of the respective products, and that may help to reduce imports, as well as to raise the volume of exports, by offering a competitive price in the

global market. Therefore, the entrepreneurs related to national or international business need to have required cost accounting education in order to secure successful business positions.

“The university attains a privileged position under globalization because the university produces and disseminates the highest level of education and is thus able to assign people in the highest possible position” (Stromquist, 2002, p. 103). Higher education will be expected to play an important role in Bangladesh’s future economic development. In order to ensure the nation’s economic competitiveness, schools will need to educate students with managerial skills to meet the challenges of intensifying global competition when they will become entrepreneurs or business managers.

Harrigan (1988) concluded that entrepreneurs needed to be sure that they had sufficient business education to meet business demands. The world is becoming a global marketplace, and entrepreneurs must be prepared to assume their roles in today’s world of business. As globalization continues to occur and new occupations emanate that require additional business skills and knowledge, the entrepreneurs will need sufficient current business education.

Other results of this study address research question 4, and will benefit businesses, business educators, policy makers, program planners, and curriculum specialists in the following ways:

- The results of this study will assist business educators, education policy makers, and business program developers in planning instructional materials, courses, and experiences that are aligned with current and future business environments and practices in Bangladesh.

- The results of this study will provide a basis for establishing and/or improving the necessary partnerships between schools and local business communities in Bangladesh.
- The results of this study will assist other individuals within the professional field who are, or will be, engaging in similar research by providing baseline data.

### **Limitations of the Study**

Limitations of the study include the following:

- The study respondents for the descriptive questionnaires included only accountants and cost accountants from the accounting department of the respective organizations. While the study respondents were employed in companies ranging from multimillion dollar to small businesses, the larger-sized companies were used in the manufacturing, service, and trading sectors. The results may not be applicable to other industries or sizes of businesses.
- The findings of the study were applicable only for Bangladesh, rather than globally.

## **Chapter 2: Literature Review**

### **Overview**

The purpose of the study was to identify the present level of use of cost accounting in business enterprises of Bangladesh. The research identified the need, as well as the areas of current problems and prospects, of use of cost accounting and its educational requirements. The study was conducted by nature and type of organizations in the main cities of Bangladesh. The aim of this study was to expand the depth of investigation in the cost accounting field by the descriptive qualitative method. The data from two questionnaires were combined with interview data to answer four research questions:

1. What is the level of use of cost accounting in Bangladesh by nature and type of organization?
2. What are the users' perceptions of the importance and need of cost accounting procedures?
3. What are the users' perceptions of use of cost accounting and possible obstacles?
4. What are the users' perceptions of education needed in order to meet cost accounting needs in Bangladesh?

This chapter presents a review of the literature providing background information for the study. The literature review for this study is divided into five main sections: cost and cost accounting, business enterprises, use of cost accounting in business enterprises, cost audit, and education in cost accounting. The review begins in this chapter and is continued in Chapter 5: Discussion and Recommendations.

## Cost and Cost Accounting

**Cost.** In any organization, managers can only perform their managerial jobs effectively with information provided by cost and management accountants. “Cost accounting supplies management with the information necessary for decision making” (Alam, 2012, p. 16). The management job involves basically three processes: planning, control, and decision making. These functions mainly focus on the costs that are incurred in the organization. “Cost is the measurement of the sacrifice of economic resources that has already been made or is to be made in the future, in order to achieve a specific objective” (Shim & Siegel, 2000, p. 2). Cost can be defined as the value of inputs that have been used to produce something, or the value measured by what must be given, done, or undergone to obtain something. “Measuring costs is the second most important thing accountants do, right after measuring profit” (Tracy & Laurin, 2007, p. 221).

Usually the term *cost* is used as an alternative with the term *expense*. Expense can be defined as a measured outflow of goods or services: “The costs of the materials or services used to produce the revenue” (Syme, Ireland & Dodds, 2013, p. 140). Actually, the terms cost and expense have been used by accountants, economists, and engineers according to their needs. Accountants have defined cost as “an exchange price, a forgoing, a sacrifice made to secure benefit. In financial accounting, the forgoing or sacrifice at date of acquisition is represented by a current or future diminution in cash or other assets” (Sprouse & Moonitz, 1962, p. 25).

**Cost accounting.** Larson and Jensen (2005) offered, “accounting is the heart of business: accounting information pulsates throughout an organization, feeding decision makers with details needed to give them an edge over competitors” (p. 4). Financial accounting provides the results of the business in financial terms: “The process of recording, classifying, and

summarizing economic events through the preparation of financial statements such as the Balance Sheet, the Income Statement, and the Statement of Cash Flow” (Label, 2006, p. 14).

“Accounting is relevant in all walks of life, and it’s absolutely essential in the world of business” (Tracy & Laurin, 2007, p. 1). Today we live in such a world with financial demands in every step of our personal or business life. Financial accounting can provide all information that helps in making financial decisions for the benefit of businesses.

“Traditional accounting has long been criticized for providing an incomplete account of business. It fails to present the dynamics of business-value-creating activities and how politico-socio factors may affect or be affected by business-value-creating activities” (Jahan & Begum, 2012, p. 26). As we need various pathological information for the treatment of a patient, in a similar way, the successful management of a competitive modern business requires various information regarding that business. “The traditional financial accounting fails to furnish all information necessary for managing a modern business successfully. Thus, as a branch of financial accounting, ‘Cost Accounting’ has evolved and made rapid progress during the last few decades” (Basu & Das, 1997, p. 1). This branch of accounting (cost accounting) furnishes management with necessary modern accounting tools and developed techniques for planning and controlling activities of a business.

Financial accounting was being used since business activities started and cost accounting started when financial accounting failed to furnish the capability of managerial needs. Today, corporate management in every organization is facing hard times to make informed business decisions, as well to maximize a company’s financial performance due to increased competition and uncertain business conditions. In response to this pressure, a range of several tools and techniques has emerged. One of the most important tools that management can use is cost

accounting. “Cost accounting is one of the branches of accounting and is predominately meant for meeting the informational needs of the management” (Debnath, 2012, p. 22).

The terminology published by the Chartered Institute of Management Accountants, London, defines cost accountancy as “the application of costing and Cost Accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived there-from for the purpose of managerial decision-making” (Basu & Das, 1997, p. 2). Cost accounting, in fact, helps management in making strategic decisions by identifying an organization’s comparative strengths and weaknesses and better ways to use them. “Cost accounting supplies cost data and information to management to make more informed decisions” (Rani & Kidance, 2012, p. 202).

Cost accounting is also defined as the “process of accounting for cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units” (Basu & Das, 1997, p. 3). Thus, in a broader sense, cost accounting covers all activities, such as preparation of statistical data; ascertainment of cost incurred on a given process, product, or service; application of cost control methods; determination of profitability of the work carried out or planned; and finally, preparation of managerial decision for maximizing a company’s financial performance.

“Cost accounting furnishes management with the necessary accounting tools for planning and controlling activities” (Matz & Usry, 2003, p. 7). Cost accounting can help management by analyzing statistical data, establishing costing methods and procedures that control cost, ascertaining company costs and profit, and selecting from two or more alternatives that might increase or decrease revenues or costs respectively. “The objective of any organization is represented by the increase of revenues and the decrease of costs” (Jinga, Dumitru, Dumitrana,

& Vulpoi, 2010, p. 243). The main objective of cost accounting, therefore, is to minimize expenditure and maximize profit. “An effective cost management system is essential in pursuing future growth and maintaining an optimal level of costs” (Kwan, 2011, p. 23).

A cost accounting system is therefore a set of rules to ensure the attribution and allocation of revenues, costs, assets, liabilities and capital employed to individual activities and services, in particular considering direct and indirect operating costs of services as well as past and future expenses. (Hoque, Ahmed, Ahmed, Mubin, & Al-Azad, 1999, p. 5)

More precisely, a cost accounting system will be made of ways to establish a record keeping mechanism, keep track of costs, and identify operational expenditures such as equipment maintenance. The major resulting benefit should be a transparent illustration of the relationship between costs and prices, as the system should be able to break down costs in order to ensure that costs allocated to regulated services do not result in cross subsidies, excessive prices, and, in general, that costs are efficiently incurred. “Cost data and analysis helps managers in making decisions in such areas like pricing, profit planning, setting standard cost, capital investment decisions, marketing decisions, cost management decisions and others” (Rani & Kidance, 2012, p. 202).

### **Business Enterprises**

“Entrepreneurship in developing countries is distinctive from that practiced in developed countries, and understanding these distinctions is critical to the development of entrepreneurs in developing countries” (Lingelbach, de la Vina, & Asel, 2005, p. 29). Bangladesh is still an underdeveloped, overpopulated country. “Bangladesh is a South Asian country surrounded by India and Myanmar. According to the United Nation’s human development index, it is classified as a least developed country (LDC)” (Siddiqui, 2010, p. 256). Although more than half of the gross domestic product (GDP) is generated through the service sector, nearly two thirds of



Bangladeshis are employed in the agriculture sector. “After its independence in 1971 from Pakistan, Bangladesh inherited a private-sector-dominated Economy” (Siddiqui, 2010, p. 259). “In economics, a business is a legally-recognized organizational entity existing within an economically free country designed to sell goods and/or services to consumers or other businesses, usually in an effort to generate profit” (Fitzgerald, Chamard, Glos, Steade, & Lowry, 1983, p. 276).

Bangladesh is small and densely populated country in South Asia. Average annual growth rates in per-capita income accelerated from about 1.6% per annum in the first half of the 1980s to 3.6% by the latter half of the 1990s, and to 5.0% from the late 1990s to the 2000s. (Mahmud, 2003, p. 21)

Bangladesh’s economy has certainly seen vast improvements in the years following independence of 1971. “A slowdown in population growth and a sustained increase in the rate of Gross Domestic Product growth are cited as the main reasons for improvements in economic growth rates. Poverty, however, remains a major concern in Bangladesh” (World Bank and Asian Development Bank, 2003, p. 6).

The country has remarkable business potential due to accessible business set-up processes and hassle-free financial policies. All types of businesses except reserved sectors are open for all local and foreign private investment or joint venture investment. The capital market is also open for both local and foreign investors. However, the country is not achieving as much foreign investment as desired. “Bangladesh is less attractive as a destination for investment compared to neighboring competitors” (Hakeem, 2013, p. 2). Even the entrepreneurs of the country are facing a serious difficulty from the lack of sound infrastructure. The country has to go a long way to reach better infrastructure, though many development works have been done since its independence in 1971. Besides this, Bangladesh is still passing through a critical stage of entrepreneurship development due to poor governance in the country. The country is seriously

suffering with political instability and deterioration of law and order. The whole country gets shut down several times per year due to serious political unrest.

Islam (2005) found as follows:

There is a serious image problem of Bangladesh in the world community. This is due to many reasons. One of the main reasons is its political unrest. Political instability hampers business activities of the country to a great extent. In [*sic*] many occasions, the entrepreneurs face numerous unexpected situations with the change of political power which frustrates them. Politics and economics should be exclusive of each other. Business always has its ups and downs and the entrepreneurs are always ready to face the worst and accept the reality; but the political interference and revenge will not bring anything good for the economy and the country. Mainstream political parties of the country should co-operate with each other in economic activities avoiding conflicts and petty political interest. (p. 96)

In addition, the country has lots of labor unions and associations that are often calling strikes. These strikes interrupt the flow of production for an uncertain period that affects the whole inland and related foreign markets. As a result, the country is not attaining enough of the foreign investment as expected due to poor governance and insufficient regulatory framework. “Foreign investments are not getting attracted as per our expectation” (Islam, 2005, p. 90).

### **Use of Cost Accounting in Business Enterprises**

“Modern business firms utilize a variety of cost accounting practices in an effort to manage expenditures and maximize profits” (King, Premo, & Case, 2009, p. 21). All business enterprises try to maximize profit margin by controlling expenditures. A cost accounting department can minimize the costs by providing all necessary information to management.

“The costing management system is important to provide timely and quality information to help managers in their decision making process” (Shill & Paramanik, 2012, p. 170). Cost accounting is the source of information of revenue and cost mainly from alternative courses of action, along with volume and capacity of the operation. Based on this information, management can make decisions to develop new products, to make or buy equipment, and also to enter new

markets. Cost accounting, thus, presents fundamental accounting concepts that are useful to management in planning and controlling operations.

The cost accounting in its developed form helps the management of manufacturing concerns in improving the efficiency, in making the business decisions and in evaluating the performance of entities in the same industrial sector through standardizing the systems and procedures. (Hussain, 2009, p. 43)

Cost accounting techniques are needed, not only to help the management exercise cost control, but the cost accounting records are also needed for such clients who place orders on a cost plus basis. In such cases, the client has the right to examine cost accounting records or to have a cost audit performed.

The Companies Act, 1994 (Act No. 18 of 1994), which was assented to by the Honorable President on September 11, 1994; the Bengali Version, which was published in the *Bangladesh Gazette* on September 12, 1994, by the Parliament Secretariat; and the English Version, published by the notification No. SRO 177-law dated October 1, 1995, of the Ministry of Commerce made this provision in respect to cost accounts under Section 181(1)(d):

In the case of a Company engaged in production, distribution, marketing, transportation, processing, manufacturing, milling, extraction, and mining activities, every company shall keep proper books of accounts with respect to such particulars relating to utilization of material, labour and other items of overhead costs. (Rahman, 2005, p. 20)

As per the Companies Act, 1994, it is already compulsory on the part of every company to maintain cost accounting records. Rahman (2005) addressed,

even before the promulgation of Companies Act, 1994, whereby the maintenance of proper books of cost accounts has been made mandatory, various industrial companies had been maintaining books of cost accounts for the sake of efficient management and control and to monitor their performance to their respective administrative and financing banks through the respective Head Office. (p. 20)

“Cost Accounting is accounting for cost aimed at providing cost data, statement and reports for the purpose of managerial decision making” (Rani & Kidance, 2012, p. 202). In any

organization, when the chief executive believes that the cost accounting is the most effective tool of management, then the organization may have the positive impact of installation of modern management function, such as a cost accounting department, because the head of the office plays the most vital role in designing the layout of the operation. Therefore, the development of an organization mostly depends on managerial decisions. “The success and survival of the organization depends on the prudence of managerial decisions” (Bhuiyan, 2014, p. 40).

In Bangladesh, “sectoral position is 90% of Textile; 100% of Pharmaceutical, Sugar, Fertilizer and 50% of Vegetable Oil & Ghee industries have cost accounting in practice” (Shamsuddin, 1999, p. iii). The manufacturing sectors hold a dominant position in the economy of the country and also meet some of the basic needs of the people. The manufacturing sectors maintain proper cost accounting records in the books of account of the company with the goal of efficient management and profitable performance for generation of revenue and social benefits to the consumer. On the other hand, private sectors, particularly in the sole proprietorships, are reluctant to maintain accounts in detail. “Use of cost accounting was found only in 30% of the organizations. Effective use is even less. Multinationals and joint venture companies have comparatively better position” (Mazumdar, 1994, p. 99).

Information provided by the Ministry of Corporate Affairs (2009) in India describes provisions for cost accounting in other countries and may explain the greater use of cost accounting in multinational and joint ventures:

In the United States of America, the Federal Government has constituted a Cost Accounting Standards Board under the office of Federal Procurement Policy, which is an independent legislatively-established board. The Board has the exclusive authority to make, promulgate, and amend cost accounting standards and interpretations designed to achieve uniformity and consistency in the cost accounting practices governing the measurement, assignment, and allocation of costs to contracts with the United States. The standards are mandatory for use by all executive agencies and by contractors and subcontractors in estimating, accumulating and reporting costs in connection with pricing

and administration of and settlement of disputes concerning all negotiated prime contract and subcontract procurement with the United States in excess of US \$5 million. The Board has so far issued 19 Cost Accounting Standards. (p. 158)

In Canada, the Tax Authorities as a regulatory body are interested in accessing Cost and Management Accounting information. No Costing Standards are established by the concerned Regulatory Body. Canada is a market based economy and also costs are dictated by the market place rather than by formula or edict except in cases where in a regulator steps in. The Tax Authorities would look for an objective evidence of whether the cost information provided by the company is correct and computed by way of an arm's length transaction. Canada basically being a developed economy the corporate culture supports best practices. Hence in the absence of cost accounting standards, management accounting guidelines issued by a CMA Canada play a major role in injecting quality in the Cost and Management Accounting practices. (p. 154)

It has been argued that cost accounting in UK only became integrated into the main body of accounting knowledge incidentally after the outbreak of the First World War. This was achieved by a new clause embodied in the Defense of the Realm Act in 1916, enabling costs to be ascertained by examining manufacturer's figures. The shortage of expertise for such an undertaking ultimately led cost accounting to be brought to the attention of manufacturers. In some regulated industries, regulators may require accounts, statistics, business plans, capital expenditure projections, or operating expenditure calculations from participants. Examples of regulated industries in UK are Airports, Communications, Education, Energy, Food standards, Pensions, Postal services, Health care, Railways, Social care and Water. (p. 151)

In Germany, many regulatory bodies are interested in accessing the cost information of a business entity. Cost accounting and cost management have played a major role in the German competitive edge in high technology manufacturing. All companies have distinct Cost and Management Accounting departments. Cost accounting is traditionally the heart of German management accounting and German companies have on average 584 cost centers. The European Commission regulations have mandated the adoption of uniform cost accounting practices across Europe by amending legal framework. (p. 152)

In Japan, cost competitiveness has been at the heart of the Japanese success in 1980s. After the Second World War, Japan was in a state of economic disorder, so the government used the cost accounting rule to control prices with effect from March 2, 1948. The economy was stabilized little by little and the government made efforts to improve productivity, and one result of this policy was the introduction of a modern cost accounting standards. The Business Accounting Deliberation Committee of the Ministry of Finance, formerly the Business Accounting Standard Committee of the Economic Stabilization Board, started to develop the Cost Accounting Standards on November 16, 1950 but did not succeed until November 8, 1962. Japan has so far issued 10 Cost Accounting Standards. (p. 159)

In Australia, the Cost and Management Accounting interest groups exist both internal as well as external to a business entity. The Institute of Certified Management Accountants (ICMA) of Australia is of recent origin as a body. In Australia, other than Tax Office who is interested in accessing the cost information of any business entity, some regulators also access the cost information. In fact, cost accounting principles have also been publicly debated by some regulators such as railways before adoption. The Regulatory Board, who call for Cost and Management Accounting information, obtain them internally assured by the company managements. The ICMA is proposing “Strategic Audits” in Australia for the business to adhere to the cost accounting principles. (p. 163)

In China, Ministry of Commerce and Ministry of Finance are the only two Regulatory Bodies interested in accessing the Cost Information of any business entity. The State Asset Administration is interested in the cost information of state owned enterprises. In private enterprises, the owners themselves or the tax agents are interested in the cost information. There are Accounting Standards for Business Enterprises, which though primarily oriented for external financial reporting, also influence internal reporting. The Rules on Cost Accounting of Power Transmission and Distribution have been published by China’s State Power Regulatory Commission and they already took effect as of January 01, 2006. The rules include 19 articles in five chapters, specifying the cost target and cost items. (p. 164)

In Korea, the Korean Institute of Chartered Accountants have issued the cost accounting standards applicable to Korean companies by amending the Accounting regulations in 1990. These regulations came during the financial debacle in these countries during 1990s. The regulations clearly state that these are meant for measuring product costs in preparing financial statements. Subsequently, these standards were also made applicable to non-manufacturing companies and later to the bank and financial institutions in 1999. However, no survey or study is available as to the level of companies with these cost accounting standards. (p. 166)

“In India, methods and techniques of cost accounting and audit of cost accounts can be traced back to pre-independence era when a large number of firms were given contracts by the Government of India on cost plus basis” (Banarjee, 2009, p. 34). The Government then started verifying and investigating the cost structure of such firms. That trend continued on a large scale during World War II, leading to the recognition of cost as a distinct concept not only in India, but also in the industrial economies of the entire world.

According to the Ministry of Corporate Affairs (2009) in India:

In India, various apex level industry associations have been playing key role in infusing a sense of cost consciousness among the member companies so as to enhance their competitiveness in the global market. (p. 169)

In Pakistan, The Institute of Cost and Management Accountant of Pakistan (ICMAP) has been able to generate considerable interest in the domain from the business and the student's community. It has also been able to successfully bring on the concept of cost audit in the company legislation of Pakistan. This will reduce cost of production, improve the efficiency, and also improve estimated potential cost savings. (p. 168)

Despite being the youngest of the statutorily started CMA professional institutes in the South Asian Association for Regional Cooperation (SAARC) region, a similar role has been played by the Institute of Cost and Management Accountants of Bangladesh (ICMAB). The following entities can be said to be the interest groups of the cost and management accounting information in Bangladesh:

- Ministry of Commerce
- Chamber of Commerce
- Regulatory bodies, such as the power sector regulator
- Global organizations, such as the United Nations Development Program, which are keen on capacity building of the CMA profession in Bangladesh

### **Cost Audit**

In common terms, an audit is a systematic process of examination and verification of records and evidences that objectively expresses an opinion on whether the records and other evidences present a true and fair view of given facts they are intended to reflect. Messier, Emby, Glover and Prawitt (2008) defined, “auditing is a systematic process of (1) objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and (2) communicating the results to interested users” (p. 710). Messier and his colleagues point out that

cost audit is a systematic process of a continuous job and the results presented as reports that are provided by the auditors should be communicated to the intended users. Therefore, the country needs enough auditors to conduct the job. “Despite having a very large population, the number of auditors in Bangladesh is surprisingly low, even compared with its neighbors” (Siddiqui, 2010, p. 258).

The audit function is performed in two ways: external audit and internal audit. An external audit of financial statements is mandatory for corporations in almost all countries. But an internal audit is not mandatory. Another type of mandatory audit, which is relatively uncommon, has been made compulsory for all public limited companies and nationalized sugar mills in Bangladesh. This is known as the cost audit. Basu and Das (1997) noted, cost audit is “the verification of cost accounts and a check on the adherence to the cost accounting plan” (p. 804).

The Institute of Cost and Works Accountants of India (now named The Institute of Cost Accountants of India) has defined cost audit as “an audit of efficiency of minute details of expenditure while the work is in progress and not a post-mortem examination” (Basu & Das, 1997, p. 804). Financial audit aims at the verification of correctness of the books of accounts, which indicates post-mortem examination of books of accounts. But cost audit aims at efficiency of minute details of expenditure, which indicates an audit while the work is in progress. Khan and Shipon (2013) point out that “cost audit has its significant role that is not substitutable by any financial audit, but financial auditors may be able to rely more on the cost information due to applying cost audit” (p. 3).

External audit/financial audit does not evaluate the performance of the company with regard to the cost of production. The main focus of financial audit is compliance with the law.



On the other hand, internal audit/cost audit lays emphasis on performance and production efficiencies by detecting the deviations and reasons for visible and invisible losses, inefficiencies, and unusual wastages.

Cost audit helps in the reduction of the utilization of raw materials helping in more effective utilization of scarce resources. As a result better quality goods can be produced at less cost thus enhancing the operational efficiency of a company. (Chatterjee & Mir, 2006, p. 36)

Khan and Shipon (2013) point out that “cost audit especially relates to the proper price fixation of a product, wastage reduction mechanism, efficiency increase, value chain analysis, operational system redesign, etc.” (p. 1).

“The Statutory provisions regarding Cost Audit in India was first introduced by Companies (Amendment) Act, 1956” (Basu & Das, 1997, p. 806). India, thus, was the first country in South Asia, possibly in the world, to make cost audit mandatory for some companies engaged in manufacturing, processing, or mining activities. “The Government of India (GOI) is making cost audit mandatory for more and more industries each year” (Chatterjee & Mir, 2006, p. 3). The quote indicates that the improvement of cost audit and its implementation is increasing radically in India every year. As the government is making cost audit mandatory, cost and management accounting have made significant progress in India.

Cost audit has been defined by the ICMAP as follows:

An examination of cost accounting records and verification of the facts to ascertain that the cost of the product under reference has been arrived at in accordance with the principles of Cost Accounting and evaluation of adequacy of proper Cost Accounting Records and their maintenance. (Hussain, 2009, p. 43)

The Companies Ordinance, 1984, is the law that regulates companies in Pakistan. Section 230(1)(e) requires the following:

Every company shall keep at its registered office proper books of account with respect to, in the case of a company engaged in production, processing, manufacturing or mining

activities, such particulars relating to utilisation of material or labour or the other inputs or items of cost as may be prescribed, if such class of companies is required by the Commission by a general or special order to include such particulars in the books of accounts. (Hussain, 2009, p. 44)

“Statutory cost audit was introduced in Pakistan under the Companies (Audit of Cost Accounts) Rules, 1998. Under sub-rule (1) of 3 thereof, it has been laid down that a company shall be required to get its cost accounts audited by a cost auditor” (Hussain, 2009, p. 45).

“Bangladesh is the second best example in this regard which is getting benefit of cost audit which the Bangladesh government is implementing for a wide range of industries” (Siddiqui, 2000, p. 3). The ICMAB is the driving force behind this recognition.

The Ministry of Corporate Affairs (2009) in India states as follows regarding cost audit implementation in different countries:

In Pakistan, Institute of Cost & Management Accountants of Pakistan (ICMAP) has been able to generate considerable interest in the domain from the business and the students’ community. The presence of ICMAP and its participation is felt across the international bodies such as CAPA and SAFA. It has also been able to successfully bring on the concept of cost audit in the company legislation of Pakistan. (p. 283)

In USA, one of the Treasury Department’s orders said that the state auditor shall annually make a cost audit examination of books and records of the county road engineer and make a written report thereon to the county legislative authority. Similarly, in another order of 20<sup>th</sup> December 2000, it said that the company in the aerospace, telecommunications, electronics or engineering fields (or any field where provided for in the contract), which is classed as a mandatory supplier under a government contract, can be liable to a post factum cost price review. (p. 278)

The Securities and Exchange Commission (SEC) of the United States has also prescribed various formats for disclosures by corporate America, which will need the adoption of standard cost accounting practice. (p. 157).

“In USA, Defense suppliers and contractors have to maintain cost accounting records in accordance with Cost Accounting Standards laid down by the Cost Accounting Standards Board (CASB)” (Hussain, 2009, p. 43). This is subject to cost audit to assure its authenticity. The

Ministry of Corporate Affairs (2009) in India states as follows regarding cost audit authenticity in different countries:

CMA Canada also issues Management Accounting Practices Statements (MPA). MPA specifically gives the tools to enhance the internal operations of the organization *as well as to provide information to enable shareholders to evaluate performance of organizations*. (p. 155)

In Ontario the CMAs are allowed to sign balance sheets and profit and loss accounts like chartered accountants and hence are subject to the jurisdiction of the Securities Commission. There is no requirement to have such information certified by an independent professional. The taxation authorities generally deal directly with the companies than through independent professionals. The accountability act also requires assurance of certain management accounting information submitted to the parliament. ( p. 154)

In United Kingdom, cost accounting was integrated into the main body of accounting knowledge after the outbreak of the First World War. Since then, there has been considerable development in this field. For all significant project proposals, the UK Government expects use of Full Economic Costing as a more accurate way of helping to determine whether an activity or a project is worthwhile and sustainable. The UK Treasury's *Green Book, Appraisal and Evaluation in Central Government*, applies to government departments although full economic costing is required in other public sector/non-for-profit organizations such as in the University sector. ( p. 278)

Sharker, Sobhan, and Sultana (2006) found as follows:

In Bangladesh until 1994 there was no statutory enactment as to maintenance of cost accounting records of any sort and audit thereof by manufacturing companies. Two sections have been provided in the Companies Act, 1994 requiring certain companies to maintain specific cost accounting records and audit of the same as and when desired by the government. So long, as there was no statutory obligation regarding maintenance of specific cost accounting records and audit of the same, companies particularly manufacturing companies are maintaining their cost accounting records to suit the purposes and requirements of their internal management and the requirements of their external financial audit by chartered accountants. (p. 117)

In Bangladesh, the Companies Act, 1994 (Act No. 18 of 1994), which was assented to by the Honorable President on September 11, 1994; the Bengali Version, which was published in the *Bangladesh Gazette* on September 12, 1994, by the Parliament Secretariat; and the English Version, published by the notification No. SRO 177-law dated October 1, 1995, by the Ministry

of Commerce made the following provision with respect to cost audit under Section 220, Sub Section (1).

Where in the opinion of the Government it is necessary to do in relation to any company required under clause (d) of sub section (1) of section 181 to include in its books of accounts the particular referred to therein the Government may, by order, direct that an audit of cost accounts of the company shall be conducted in such manner as may be specified in the order by an auditor who shall be a cost and management accountant within the meaning of the Cost and Management Accountants Ordinance, 1977 (LIII of 1977). (Tariquzzaman, Yusuf, & Yasmin, 2009, p. 27)

Cost audit is new in Bangladesh, since, after liberation, the cost auditing system was introduced by the ICMAB for the first time in the country.

The Government has notified the second order for implementing cost audit in 11 (eleven) listed companies under Dhaka Exchange Ltd., of which 5 (five) belong to Fuel & Power sector and the rest are of Jute sector through Gazette Notification on January 12, 2003. (Chowdhury, 2004, p. 9)

Hassan (2009) stated,

Cost Audit has been at the heart of the Cost and Management Accounting profession in Bangladesh and the members of the CMA profession, as a part of the society, wish to make its own contribution to the industrial landscape of the country by wiping out wastages of all kinds and preventing, if not eliminating entirely, the malpractices and inefficiencies, which are eating into the vital sectors of the economy and have made sizeable portion of the industrial sectors of the economy and have made a sizeable portion of the industrial sector, sick and unprofitable. (p. 59)

These quotes indicate that The ICMAB built up, with the moral support of the government of the country and its members, a duty to perform for the society.

Apart from the practices adopted in various countries, the United Nations also propagated the concept of cost accounting and cost audit.

The Audit Committee of the Program and Budget Committee of the United Nations, in its report in 2006, on the World Intellectual Property Organization's new construction project recommended Cost Audit of the estimated budget of the project that had been agreed by the Member States in 2005 and suggested that such task could be assigned to an independent party. (Ministry of Corporate Affairs, 2009, p. 167)

## **Education in Cost Accounting**

Normally business schools are offering business courses in every country. Those business schools are also teaching particularly cost accounting and management accounting courses under the Accounting Department, but not in-depth as the present era demands. Education and training are needed that can solve today's complexities in rapidly growing competitive organizations.

“Currently, the need for strong cost control is the greatest it has ever been” (Crum, 2008, p. 363).

For that reason, almost all the countries grant professional designation in cost and management accounting to maintain the highest standards, practices, and professional conduct to protect the public interest.

The Ministry of Corporate Affairs (2009) in India has stated the following:

In India, the profession was established by a special act of parliament, namely, the Cost and Works Accountant Act, 1959. With the passing of the act, “The Institute of Cost and Works Accountant of India” was established in 1944. It has since been continuously contributing to the growth of the industrial and economic climate of the country. The Institute of Cost and Works Accountants of India is the only recognized statutory professional organization and licensing body in India imparting training and education in the field of Cost and Management Accounting to confer Cost and Management Accounting degree in India. This is the only Institute in India specializing in Cost and Management Accountancy. (p. 169)

No wonder a Cost Accountant can attain the highest leader of professional career in India. Cost and Management Accountants also hold key positions in Central and State Governments in India. A Cost Accountant may also build up his own practice by obtaining a license from the Institute which would enable him to practice as a Cost Accountant, either individually or in partnership with one or more members of the Institute in practice. (p. 283)

According to ICMAP Career Pack (2009),

the Institute of Cost and Management Accountants of Pakistan (ICMAP), established in 1951, was granted statutory status under the Cost and Management Accountants Act, 1966 for the regulation of the profession of Cost and Management Accountancy profession in Pakistan. ICMAP is the sole provider of cost and management accounting education, training and professional certification in the country. Over the years, the Institute has maintained high standards in imparting education and testing and has thus been meeting an important national human resource need through a steady flow of

professional Management Accountants to occupy leadership positions in the corporate sector. ICMAP has around 3,500 members, who hold senior positions in trade, commerce, industry and government within the country and abroad. The number of active registered students is around 15,000, which makes ICMAP one of the largest professional institutions in Pakistan. (p. 8)

Richardson and Kilfoyle (2012) pointed out,

the Canadian accounting profession is in the midst of prolonged merger negotiations. Since 2004, in various combinations, the association executives of the Chartered Accountants (CA), Certified Management Accountants (CMA) and Certified General Accountants (CGA) have been discussing ways to merge either two or all three professional organizations. The most recent proposals presented to the members of these associations would create a single administrative body responsible for the entire profession operating under the Chartered Professional Accountant (CPA) designation. The merger of accounting associations, however, is not a new phenomenon in Canada. The structure of the Canadian accounting profession has emerged over 130 years through a balance between the creation of new associations and the merger and affiliation of existing associations. (p. 1)

According to the Annual Report of IMA (Institute of Management Accountants) of the United States (2013),

in the United States of America, The Institute of Management Accountants (IMA) is the world's leading organization dedicated to empowering management accounting and finance professionals to drive business performance. IMA Members are today's leaders, managers, and decision makers in management accounting and financial management. As Members, we are dedicated to continued professional development, to achieving the highest levels of professional certification, and to supporting each other in our commitment to professional excellence. With a network of about 68,200 professionals, IMA provides a dynamic forum for management accounting and financial professionals to develop and advance their careers through its Certified Management Accountant (CMA) program, cutting-edge professional research and practice development education, networking, and the advocacy of the highest ethical and professional practices. IMA is dedicated to rebalancing the accountancy profession by educating society regarding the business building role of management accountants and finance professionals working inside organizations. (p. 3)

According to the Annual Report of The Chartered Institute of Management Accountants of UK (2013):

“CIMA was created in 1919 to redefine how business is done and we have been doing so ever since” (p. 2)

Today, with over 218,000 members and students operating in 177 countries, we are the world's leading professional body of management accountants. Combining financial expertise and business insight, our members demonstrate management accounting expertise, determination and commitment to achieving sustainable business success. (p. 2)

In Bangladesh, like many other countries, industrial business organizations are growing in size and complexity. Long-term, accurate, financial projection, hitherto neglected, is demanding careful planning and application of rigid cost control measures. Management today requires relevant facts to reduce the risk of making faulty decisions. Management needs cost and management accountants not only to fulfill the traditional role of recording, classifying, and analyzing business transactions, but also for “managerial control.” They should be skilled in obtaining, evaluating, reporting, and managing all information that organizations need to control their operations most effectively.

Sharker et al. (2006) found as follows:

In 1977 “The Institute of Cost and Management Accountants of Bangladesh” (ICMAB) was formed by the ordinance known as “Cost and Management Accountants Ordinance, 1977 (Ordinance No. LIII of 1977).” The Institute was a branch of “Pakistan Institute of Industrial Accountants” set up in Dhaka in 1961. After the independence it was renamed as “Bangladesh Institute of Industrial Accountants” in 1972. Activities of the institute are regulated by the “Cost and Management Accountants Regulations, 1980.” (p. 116)

The ICMAB, an autonomous professional body under the Ministry of Commerce, Government of People's Republic of Bangladesh, is the only institution in the country dedicated to cost and management accounting education and research. The ICMAB is the only national institute imparting training and education in the field of cost and management accounting to confer a cost and management accounting degree in Bangladesh. “This is the only institute in the country dedicated to cost and management education and research” (Sharker et al., 2006, p. 117). The Institute's mission is to develop and promote the cost and management accounting

profession by maintaining the highest professional standards of its members in order to enable them to provide better services to the society.



## **Chapter 3: Methodology**

### **Overview**

The purpose of this study was to identify the present level of use of cost accounting by nature and type of organization in Bangladesh. The research attempted to identify the need, as well as the areas of current problems and prospects, of use of cost accounting. This study attempted to determine the level and nature of educational skills required in order effectively to apply cost accounting. The study was conducted by the nature and type of organizations in the main cities in Bangladesh. The aim of this study was to expand the depth of investigation in the cost accounting field by descriptive qualitative method. The data from two questionnaires were combined with the interview data to answer the research questions as follows:

1. What is the level of use of cost accounting in Bangladesh by nature and type of organization?
2. What are the accounting users' perceptions of the importance and need of cost accounting procedures?
3. What are the accounting users' perceptions of use of cost accounting and possible obstacles?
4. What are the accounting users' perceptions of education needed in order to meet cost accounting needs in Bangladesh?

### **Research Design**

The questionnaires and the open-ended interview questions were based on a pre-tested questionnaire used in Bangladesh by Mr. Abul Kalam Mazumdar, but the questionnaires were modified to meet the needs of this study. By using the descriptive and the demographic questionnaires, the study attempted to investigate (a) the current level of use of cost accounting

in Bangladesh, and (b) the importance of cost accounting, as well as its current obstacles and prospects, in business enterprises in Bangladesh.

The data from the interview questions were based on face-to-face interviews with the participants. The main purposes of the interviews were to gain more information and to combine that with the findings from the descriptive questionnaire data. By listening to the participants' discussion, the researcher attempted to gain vital information about (a) the importance and need of cost accounting, and (b) the education required effectively to apply cost accounting in business enterprises in Bangladesh.

**Pilot of the survey.** Both questionnaires were summarized and modified in light of the purpose of the study from the original pre-tested questionnaire in Bangladesh by Mr. Abul Kalam Mazumdar. The researcher selected another set of accounting personnel, those who did not participate in the original study, to pilot the questionnaires to ensure that the items were understood. No change was made after piloting the questionnaires.

**Participants.** The list of business enterprises including their addresses was obtained from the Chambers of Commerce of different main cities in Bangladesh.

*Questionnaires.* From the lists of the Chambers of Commerce, 150 business enterprises in the main cities of Bangladesh were selected, including manufacturing, trading, and service organizations based on larger volume of production and services. From the 150 business enterprises, the goal was to obtain 100 completed questionnaires. Each of the 150 sets of questionnaires was mailed and included a cover letter, a letter of informed consent, a one-page demographic questionnaire, and a two-page descriptive questionnaire. The participants were the employees (accountants/cost accountants) who worked directly in the accounting department.

*Interviews.* Staff in 20 organizations were selected for face-to-face interviews in the main cities of Bangladesh based on a larger volume of productions or services. The interviewees were the managers or the heads of the accounting departments.

**Setting for the interview.** The setting for each interview depended on the schedules of the interviewer (researcher) and the participant. The researcher conducted the interviews in the participant's respective business premise.

**Instruments.** Three different instruments were constructed and used in this study: (a) a demographic questionnaire, (b) a descriptive questionnaire, and (c) questions for the interview.

*Demographic questionnaires.* Demographic questions were utilized, including name and address, year of establishment, type of ownership, nature of operation, produced product, and size of the organization. The demographic questionnaire is shown in Appendix A.

*Descriptive questionnaires.* The descriptive questionnaire was developed to collect data from accountants/cost accountants in the organizations to investigate (a) the current level of use of cost accounting in Bangladesh, and (b) the importance of cost accounting, as well as its current obstacles and prospects, in the business enterprises in Bangladesh. The questionnaire is shown in Appendix B.

*Interviews.* The open-ended questions were designed in this study to identify (a) the importance of and need for cost accounting, and (b) the required education effectively to apply cost accounting in business enterprises in Bangladesh. A sample set of interview questions is shown in Appendix C.

**Data collection.** Three steps were utilized to collect data.

*Professional literature.* The first step was an analysis of the professional literature related to this subject in published reports and books.

*Questionnaires.* The second step was to use the descriptive and the demographic questionnaires for accountants/cost accountants of different business enterprises. To collect the required data to answer the questionnaire, 150 sets of questionnaires were mailed with the goal receiving 100 completed questionnaires. Unfortunately, a satisfactory number of responses from those selected organizations was not received within the time frame. Eventually, four students from ICMAB (The Institute of Cost and Management Accountants of Bangladesh), Khulna Branch, and from Azam Khan Government College, Khulna, were hired to collect questionnaire data by visiting those organizations several times.

Among the 150 business enterprises, 100 completed questionnaires were finally collected from manufacturing, trading, and service organizations. Out of 100 organizations from the main cities, 55 organizations were from Dhaka, 25 from Khulna, and 20 from Chittagong. Among the total 100 organizations, the number of manufacturing, service, and trading companies were 50, 35, and 15 respectively. According to the ownership of the surveyed organizations, 24 were public enterprises, 14 were public limited companies, 8 were multinational companies, 7 were joint venture companies, 12 were government organizations, and 35 were private limited companies. The list of characteristics analysis of functional classification of operation is shown in Appendix D.

*Interviews.* The third step was the use of interviews with open-ended questions for the manager or head of the accounting department. Each participant was interviewed for approximately 30 minutes. The interviews were conducted in an informal way to make the interviewee feel at ease. The data were collected by those in-depth interviews. All interviews were supposed to be audio taped to capture the data with the permission of participants.

Bangladesh is a very densely populated country, and people live on low incomes. “More than 80% of these people survive on less than \$US 2 per day – many are under constant threat from floods, droughts and cyclones” (Bashar & Rashid, 2012, p. 152). In such a situation, no one wants to take the risk of losing his or her job by any chance. In order to collect interview data, the researcher tried to record the interviews, but the interviewees felt uncomfortable knowing the conversation was to be recorded. The interviewees thought the discussions would somehow be disclosed and they might lose their jobs, as they were disclosing their official secrets. Besides that, they requested several times to keep their identity anonymous in their interview period. In this situation, according to Belson (1967), the use of the tape recorder might restrain the authentic information.

Clearly, the recorder can hardly be used in the highly personal or semi-confessional type of interview because people in that situation may well be expected to suppress information or to give respectable replies or simply to refuse to take part. But even with more ordinary issues, there is the possibility of adverse reaction of some kind: minor fears, wariness, formality. (p. 253)

Some interviewees were quite nervous when they saw the tape recorder and tried then to avoid the interview. As a result, detailed notes were taken while conducting the interviews to make the interviewees fairly comfortable, so they would speak openly. In that situation, the recommendation was followed from Weiss (1994), who stated “if a tape recorder would be intrusive, then of course you should take notes and let the tape recorder go” (p. 55).

Interviewing was conducted in English, but due to the personal and complex nature of some issues that might be discussed, the participants felt more comfortable at times expressing themselves in their native language, Bengali. It was believed that if the participants spoke in their own language, they would feel at ease in expressing their ideas clearly. The interviews were transcribed and translated into English.

There were many complications that arose, including those in the country of Bangladesh, which had caused a delay in the study. The original 100 completed questionnaires were obtained in 2005. During the delay, the researcher used this opportunity to re-examine the data and to conduct additional interviews. Those additional interviews were conducted at the 5-year point, and showed the original research problems still to be appropriate.

Ten more interviews were conducted in 2010 with managers or heads of the accounting departments who had not participated in the 2005 data collection. Because the degree to which respondents were forthcoming varied (see the discussion of interview procedures in this chapter), 10 providing the most comprehensive responses were selected among 20 that were collected in 2005, and 10 that were collected in 2010. The list of the interviewees, their position titles, and their educational credentials is shown in Appendix E.

### **Data Analysis**

The data from the participants' answered descriptive questionnaires was analyzed to find the following: (a) the current level of use of cost accounting in Bangladesh, and (b) the importance of cost accounting, as well as its current obstacles and prospects, in business enterprises in Bangladesh.

For analyzing the interview data, the interviews and related questions were read several times to become familiar with the data. Each transcript was analyzed to identify respondent comments relevant to the research questions. "Data interpretation and analysis involves making sense out of what people have said, looking for patterns, putting together what is said in one place with what is said in another place, and integrating what different people have said" (Patton, 1987, p. 347). Markers in different colors were used to mark key words, sentences, paragraphs, issues, and ideas that seemed to be relevant to the research topics. Themes in each transcript

were compared with the other transcripts to look for categories, until no new information or key categories could be gathered from the data.

A set of general findings about the question topics was developed. Each specific theme was described and explained by documenting it with quotes from the participants' comments in Chapter 4: Findings. A connection from those findings was attempted to some appropriate literature in Chapter 5: Discussion and Recommendations. From the analyzed data from interviews, the study found: (a) the importance and need of cost accounting, and (b) the required education effectively to apply cost accounting in business enterprises in Bangladesh.

### **Protection of Human Subjects**

All participants were informed of the purpose of the study and the time commitment required for the interview prior to their agreeing to participate. At the very beginning of each interview, the participants were told how important their participation for the study was. The participants were assured that their identity would remain anonymous and would not circulate in any written records. The approval of the Institutional Review Board at University of the Incarnate Word was sought before beginning the research (Appendix D). Also informed consent was obtained from the subjects before they participated in the study.

### **Credibility of the Study**

To ensure the interpretation of data was accurate, several approaches were used in this study. One approach was the Member Check (Merriam & Associates, 2002). That strategy was conducted with the participants to avoid misunderstandings of the responses given during the interview. The other approach was *Thick Description* (Merriam & Associates, 2002). All participants had the opportunity to comment on the interpretation of their responses by the

researcher. Another strategy was the use of descriptive language. The data from the participants' comments were documented with quotes, thus assuring more trustworthiness of the findings.

Also the triangulation of data strengthens the research paper when multiple combination methods are used to gather data, such as documents, interviews, observations, questionnaires, or surveys. "Triangulation refers to the practice of collecting data from more than one source" (Gay, 1996, p. 59). Data triangulation confirms the data and research by cross verifying the same information. "The most persuasive evidence comes through a triangulation of measurement processes" (Webb, Campbell, Schwartz & Sechrest, 1966, p. 3). Three different elements were used for triangulation of the data: (a) interviews, (b) questionnaires, and (c) professional literature, and the relationship and consistency among those elements was demonstrated in the reporting and discussion of findings.



## **Chapter 4: Findings**

### **Overview**

The purpose of this study was to identify the present level of use of cost accounting by nature and type of organization in Bangladesh. The research identified the need, as well as the areas of current problems and prospects, of use of cost accounting and its educational requirements. The study was conducted by the nature and type of organizations in the main cities in Bangladesh. The aim of this study was to expand the depth of investigation in the cost accounting field by the descriptive qualitative method. The data from the questionnaires were combined with the interview data to answer four research questions:

1. What is the level of use of cost accounting in Bangladesh by nature and type of organization?
2. What are the users' perceptions of the importance and need of cost accounting procedures?
3. What are the users' perceptions of use of cost accounting and possible obstacles?
4. What are the users' perceptions of education needed in order to meet cost accounting needs in Bangladesh?

The data collection in this study consisted of two parts. First, descriptive and demographic questionnaires were utilized to investigate the level use of cost accounting in Bangladesh and the need, as well as the possible obstacles. A total of 100 completed questionnaires were collected from manufacturing, trading, and service organizations based on a larger volume of production or services. Second, interview questions were utilized to collect data by open-ended interviews to identify the importance and need of use of cost accounting and required education in order to meet cost accounting needs in business enterprises in Bangladesh.

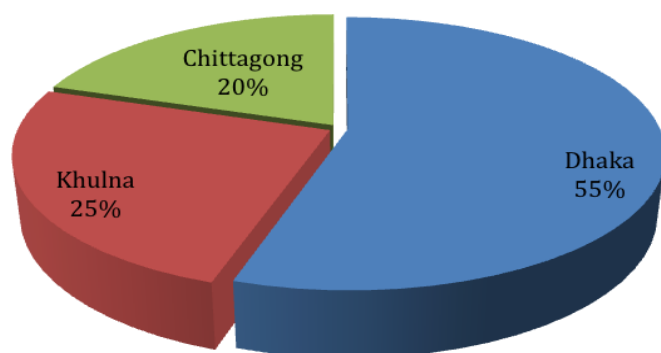
Then staff members from 20 organizations were selected for face-to-face interviews. The interviewees were the managers or the heads of the accounting departments.

### Questionnaire Survey Results

Two survey instruments were designed to measure and identify demographic characteristics, use of cost accounting in the business enterprises in Bangladesh, and the need, as well as the possible obstacles, to use of cost accounting. Demographic data assessed in the survey included type of organization, functional classification of operation, ownership, industry, and geographical location.

The data from the questionnaires were analyzed as described in Chapter 3.

**Demographic characteristics analysis.** One hundred completed questionnaires were collected from manufacturing, trading, and service organizations. Figures 1-3 provide information regarding the major cities as well as the nature of operations and ownership of the organizations represented by the respondents.



*Figure 1.* Geographical location of the major cities of Bangladesh for the survey.

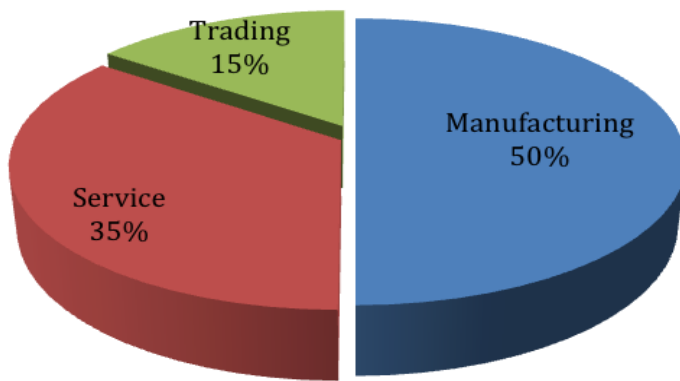


Figure 2. Nature of operation of respondents' organizations participated in the survey.

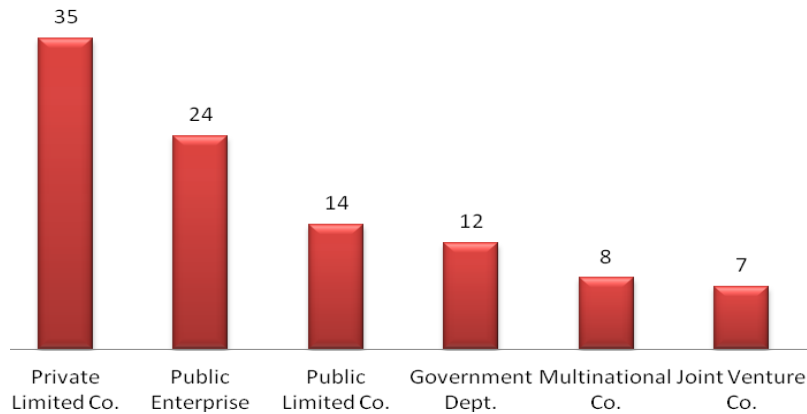


Figure 3. Ownership of the surveyed organizations.

Table 1 provides a breakdown showing the types of ownership and operation represented by respondents' organizations.

Table 1

*Ownership by operational classification*

SL	Ownership	Manufacturing	Service	Trading
1	Public Enterprise	16	6	2
2	Public Limited Co.	11	3	0
3	Multinational Co.	5	2	1
4	Joint Venture Co.	0	6	1
5	Government Dept	4	7	1
6	Private Limited Co.	14	11	10
	Total	50	35	15

In addition, a demographic analysis of functional classifications represented by respondents' organizations is shown in Table D1 (See Appendix D). Twenty-two functions were represented with the largest number coming from Heavy Engineering, Food and Allied Products, and Financial Institutes.

**Financial accounting system in use.** Out of the total organizations surveyed, only the four from private limited companies were not found to have a separate accounting department. Among the four private limited companies without separate accounting departments, two were service organizations and two were trading companies.

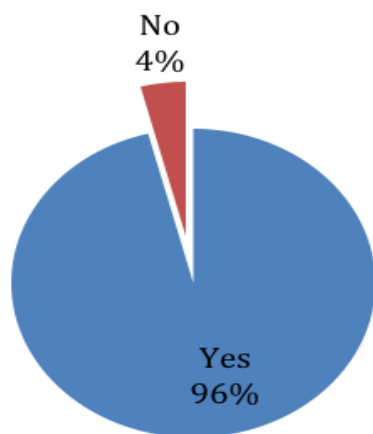


Figure 4. Separate accounting department.

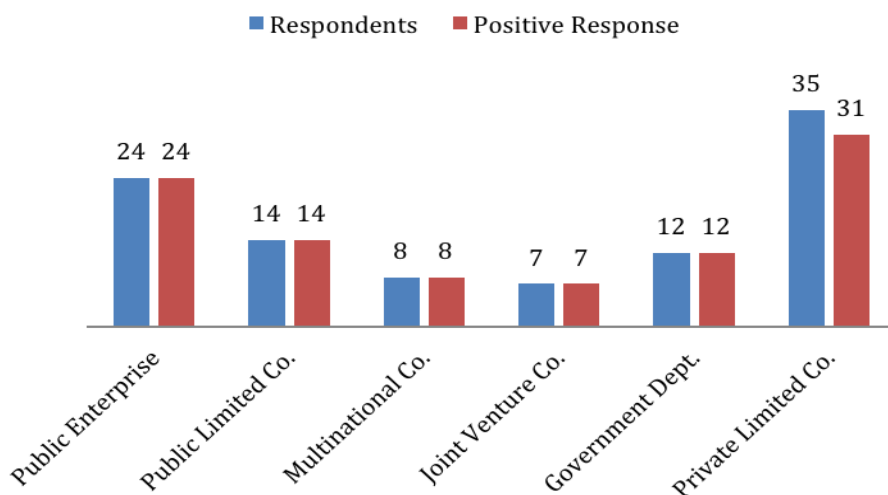


Figure 5. Separate accounting department by ownership.

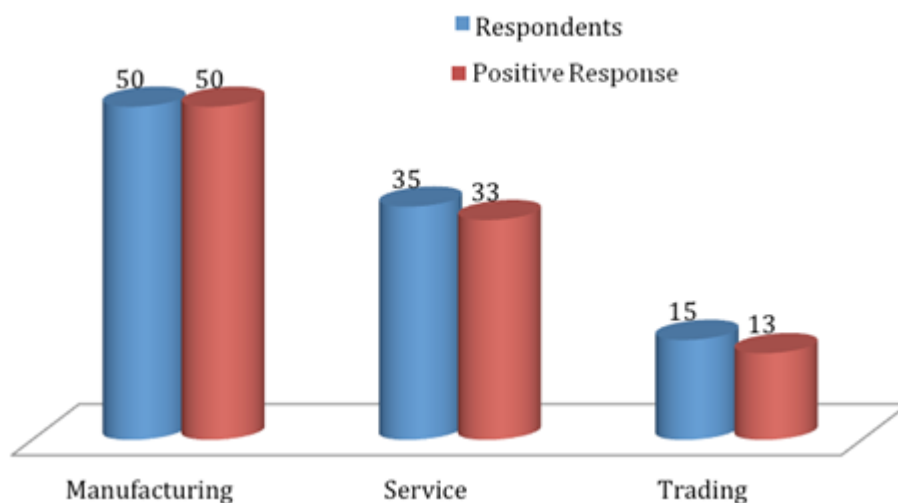


Figure 6. Separate accounting department by nature of operation.

**Cost accounting system in use.** Among the 100 organizations surveyed, only 32% were found to have a separate cost accounting department. None of the private limited companies was found to have a separate cost accounting department.

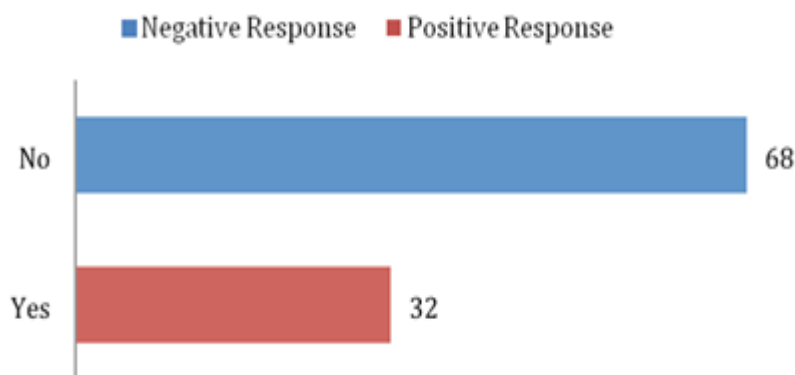


Figure 7. Cost accounting department.

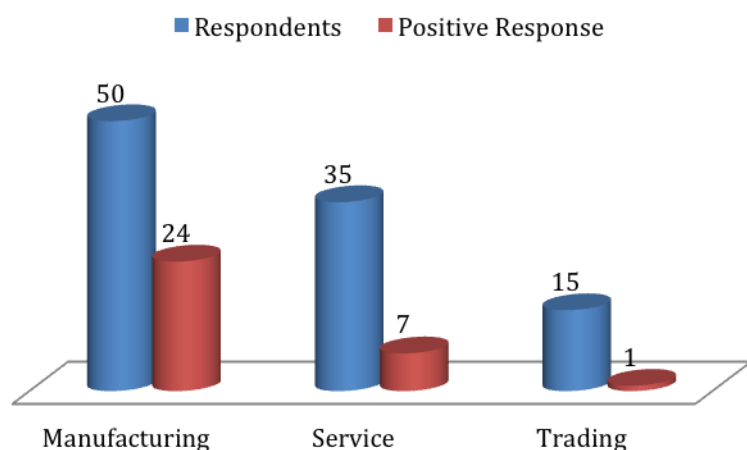


Figure 8. Cost accounting department by nature of operation.

Table 2

*Cost Accounting Departments by ownership*

SL	Nature of Operation	Respondents	Yes Response	%	No Response	%
1	Public Enterprise	24	16	67	8	33
2	Public Limited Co.	14	6	43	8	57
3	Multinational Co.	8	4	50	4	50
4	Joint Venture Co.	7	4	57	3	43
5	Government Dept.	12	2	17	10	83
6	Private Limited Co.	35	0	0	35	100
	Total	100	32	32	68	68

**Need for cost accounting.** Out of the total organizations surveyed, only 14% were found not to feel the necessity of having a department due to their operational function.

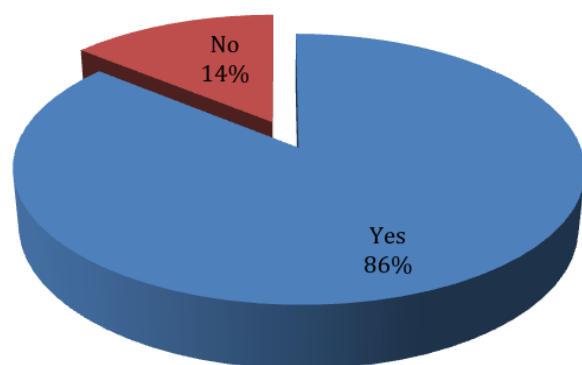
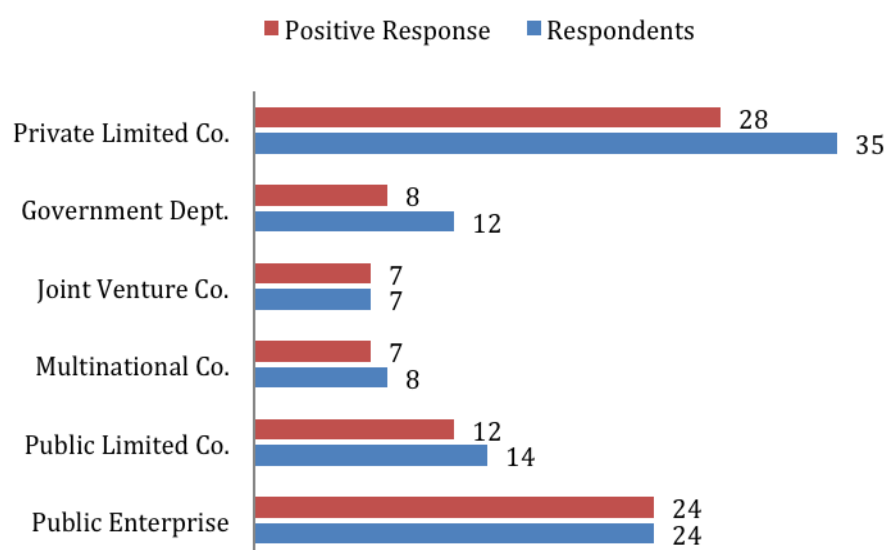


Figure 9. Need for cost accounting.

Table 3

*Need for Cost Accounting by nature of Operation*

SL	Nature of Operation	Respondents	Yes Response	%	No Response	%
1	Manufacturing	50	48	96	2	4
2	Service	35	25	71	10	29
3	Trading	15	13	87	2	13
	Total	100	86	86	14	14

*Figure 10. Need for cost accounting by ownership.*

**Obstacles to use of cost accounting.** A majority of the respondents indicated that the absence of statutory requirement and the lack of appreciation of cost accounting's importance were obstacles to cost accounting practices in the country. Fewer than a majority considered the lack of qualified manpower an obstacle. Table 4 provides details by type of ownership.

Table 4

*Factors Inhibiting Cost Accounting Practices by Ownership*

Ownership		Lack of Qualified Manpower		Absence of Statutory Requirement		Lack of Appreciation of Its Importance	
		Positive Response	%	Positive Response	%	Positive Response	%
Operation	Respondents						
Public Enterprise	24	5	21	19	79	10	42
Public Ltd.	14	5	36	11	79	8	57
Multi-national	8	2	25	7	88	4	50
Joint Venture	7	2	29	6	86	3	43
Government Dept.	12	6	50	9	75	10	83
Private Ltd.	35	11	31	20	57	22	63
Total	100	31	31	72	72	57	57

Table 5

*Factors Inhibiting Cost Accounting Practices by Nature of Operation*

Nature of Operation		Lack of Qualified Manpower		Absence of Statutory Requirement		Lack of Appreciation of Its Importance	
		Positive Response	%	Positive Response	%	Positive Response	%
Operation	Respondents						
Manufacturing	50	19	38	38	76	33	66
Service	35	8	23	25	71	17	49
Trading	15	4	27	9	60	7	47
Total	100	31	31	72	72	57	57

**Cost audit requirement.** Figure 11 shows strong agreement among respondents that a statutory requirement of cost audit was needed.

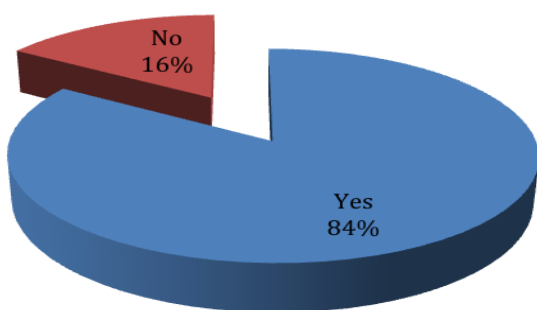


Figure 11. Cost audit requirement.



Figures 12 and 13 provide detailed information about the nature of operations and ownership in organizations represented by respondents who were in favor of a statutory requirement for cost audit.

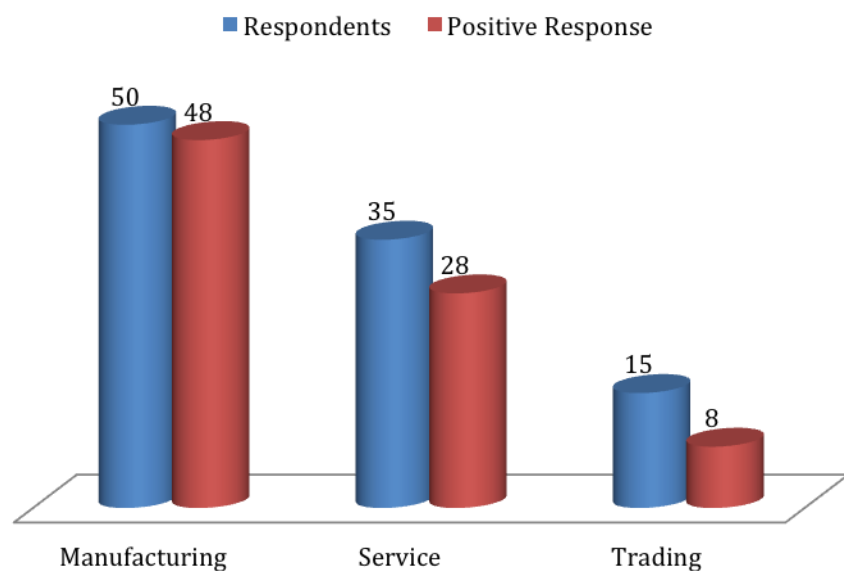


Figure 12. Cost audit requirement by nature of operation.

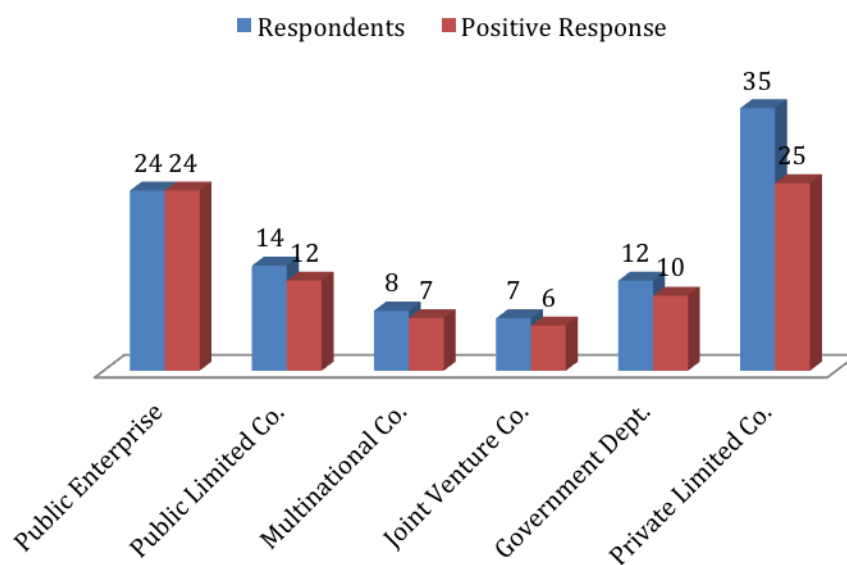


Figure 13. Cost audit requirement by ownership.

**Adequacy of education facilities, and training facilities.** Respondents evaluated the business education facilities and the training facilities that related to promoting cost accounting use in business enterprises in the country. Table 6 shows that almost one third of the participants' indicated that education facilities were adequate, whereas only 2% of respondents' indicated training facilities were adequate.

Table 6

*Adequacy of Education and Training*

Nature of Operation	Respondents	Adequate		Moderate		Inadequate	
		Positive Response	%	Positive Response	%	Positive Response	%
Education Facilities	95	30	32	52	55	13	14
Training Facilities	93	2	2	44	47	47	51
Total	188	32	17	96	51	60	32

**Interview Survey Results**

Twenty organizations were selected for face-to-face interviews. The interviewees were the managers or the heads of the accounting departments.

There were many complications that arose, including those in the country of Bangladesh, which had caused a delay in the study. The original 100 completed questionnaires were obtained in 2005. During the delay, the researcher used this opportunity to re-examine the data and to conduct additional interviews. Those additional interviews were conducted at the 5-year point, and showed the original research problems to still be appropriate.

Ten more interviews were conducted in 2010 of the managers or heads of the accounting departments who had not participated in the 2005 data collection. Because the degree to which respondents were forthcoming varied (see the discussion of interview procedures in this chapter),

10 providing the most comprehensive responses were selected among 20 that were collected in 2005, and 10 that were collected in 2010.

The researcher tried to record the interviews, but interviewees felt uncomfortable knowing that the conversations were to be recorded. At that point, the recommendation was followed from Weiss (1994), who stated, “tape recorders remind people that there will be a record of what they say. Even when people seem to have stopped attending to the tape recorder they can feel constrained by its presence” (p. 53). The interviewees thought the discussion would somehow be disclosed, and they might lose their jobs as they were disclosing their official secrets. In addition, they requested several times in their interview period to keep their identity anonymous. Some interviewees were quite nervous when they saw the tape recorder and tried then to avoid the interview. As a result, detailed notes were taken while the interviews were conducted to make the interviewees fairly comfortable, in order for them to speak openly.

The participants were assured during the interview period that their identity would remain anonymous and would not circulate in any written records. Thus, those selected 20 interviewees were renamed as B1 to B20, and every interviewee’s position in the respective organizations, gender, academic and professional educational background, and training were coded in Table E1.

To clarify the table and later reporting of interviews, it is important to explain business education in Bangladesh. The education offered by any academic institutions, such as colleges or universities, is known as academic education. Some examples of these are Bachelor of Commerce, Bachelor of Arts, Bachelor of Science, and Master of Commerce. Similarly, the education and training offered by the individual institutes, recognized by the government in a particular profession, are known as professional education and training. Examples of such institutes and programs include the Cost and Management Accountant (CMA) from The Institute

of Cost and Management Accountants of Bangladesh (ICMAB) and the Chartered Accountant (CA) from The Institute of Chartered Accountants of Bangladesh (ICAB).

To join any professional institute for a professional program, the candidate has to have the higher academic degree (at least bachelor's degree) in the similar field. That means, anyone in a professional institute already has at least academic graduation in the similar field. The professional institutes also provide licensure and membership among the certified personnel to practice in the similar field. There are two institutes that are recognized as professional institutes in the accounting profession in Bangladesh: the ICMAB and the ICAB. Those two institutes also organize Continuous Professional Development training. Between these two institutes, ICAB emphasizes more the financial accounting, rather than the cost accounting; but ICMAB emphasizes the cost and management accounting as more courses are in its curriculum.

The conversations were described with extensive detail (“thick description”) just after completing each interview. Interviews were conducted in English, but due to the personal and complex nature of some issues that might be discussed; the participants at times felt more comfortable expressing themselves in their native language, Bengali. The researcher believed that if the interviewees were free to speak in their own language, they would feel at ease in expressing their ideas clearly. The comments were then translated into English. The interviewees were contacted a second time to avoid misunderstandings of the responses during the interview (“member check”).

The data from interviews were analyzed as described in Chapter 3.

The following four themes with eight subthemes were identified according to group codes from the interview data:

1. Contribution of cost accounting

- a. Decision-making
  - b. Expansion
  - c. Efficiency
- 2. Satisfaction with cost accounting in current companies
  - 3. Education for cost accounting
    - a. Necessity
    - b. Availability—Academic and professional
  - 4. Needed change to cost accounting
    - a. Education
    - b. Management
    - c. Government

**Contribution of cost accounting.** All interviewees were very positive regarding the issue of the importance of using cost accounting in any type of organization. Most of the interviewees' opinions were that cost accounting was very important to analyze and segregate cost data to control costs from raw materials to finished products, including administrative, marketing, and human resources, as well as other departments. By controlling cost, cost accounting can easily maximize profit for an organization. A cost accounting department can provide necessary information to management for making proper decisions for the development and required expansion, as well as to increase the efficiency of the respective organizations.

*Decision-making.* Most of the interviewees explained how cost accounting could provide information to management for taking proper decisions for the development of an organization. Here are some major examples.

We need to have a separate cost accounting department, and we have to enrich the department with professional personnel to control cost and to provide necessary information to management for making proper decisions. (B17)

The cost accounting department can provide timely information to the top management. Cost and management accountants educate and make suggestions to management for taking proper decisions for their respective organization. (B11)

My team faced a lot of situations that often had positive solutions when we tried to apply the problem-solving method according to various decision making tools of cost accounting. So, I think that a team of cost accountants can solve all kinds of problems by providing proper information to the management body. (B10)

Cost accounting can provide accurate information to management on how to develop the business by finding all weaknesses of the organization. (B7)

*Expansion.* Some interviewees shared their experience of how cost accounting can make a significant contribution for growth in an organization. Here are some examples.

Cost accounting can make very significant contributions for the growth of an organization. In fact, cost accounting has some formulas that can reduce cost for maximizing profit without sacrificing the quality of a product. I strongly believe that an organization can never become a losing concern if it uses cost accounting formulas properly. By reducing cost, a cost accountant can make extra profit for the organization, and that helps to expand the organization day by day. (B2)

When a cost accountant analyzes cost data, then he/she can figure out where extra expenses are occurring. By reducing those unnecessary expenses, a cost accountant can make extra margins for the organization for further investment. Similarly, a cost accountant can enlarge the capacity for an organization by exporting its products to the foreign market while considering the opportunity cost of the product in the inland market. (B19)

The basic concept of cost accounting is to minimize the cost and to maximize the profit. So, I believe that cost accounting can play a vital role for the growth of an organization by making extra profit for further investment. (B7)

*Efficiency.* Some interviewees explained how cost accounting could develop an organization's efficiency by reducing cost and providing information to management.

By using the cost accounting, we can analyze different elements of cost. We can reduce cost where needed and maximize sales by reducing sales price. So, organizations can develop efficiency by using cost and management accounting. Cost accounting can reduce cost from raw materials to a human resources department. (B4)

An organization can be a profitable one by controlling costs and improving efficiency through proper implementation of cost accounting. The cost accounting department can develop a foreign market by considering the opportunity cost. By expanding the market, an organization can increase efficiency for extra production. (B20)

Not only for survival, to make an organization healthy, cost accounting plays a vital role. The cost accounting departments analyze all costs and make suggestions on how to reduce cost with the highest efficiency. The organization can be more profitable by reducing idle cost and increasing the volume by considering the opportunity cost. (B8)

**Satisfaction with cost accounting in current companies.** Some interviewees strongly said that they were very satisfied with the services provided from their cost accounting department. Other interviewees were satisfied with their cost accounting services, but they still expected more development in that department by educating the personnel or creating a separate cost accounting department. Others were not at all satisfied with the cost accounting service they currently had. They felt that they needed proper cost accounting service for the growth or survival of the organization.

Some opinions from those interviewees very satisfied with their cost accounting services follow.

We have to do costing against each order received from abroad for the purpose of cutting and making a cost sheet. In fact, textile sectors do the actual costing, and we have the department equipped. (B1)

As we have a separate cost accounting department, we receive proper information for managerial decisions. We also update them with recent accounting standards. (B9)

A team headed by myself and two others having some level of qualification of CMA (Cost and Management Accounting) is doing well to serve the overall expectations of the organization regarding the cost controlling and cost effectiveness analysis of day-to-day operations, as well as long-run decision making. (B10)

We are very satisfied because we have a separate cost accounting department with three qualified CMA members in our accounting department, and some partly qualified CMAs are also working with us. (B19)

Here are a few examples of those who were satisfied, but still felt they needed more development in their cost accounting department to serve the organization better.

I am satisfied. It is a cable industry, and we have a separate cost accounting department. We have job, batch, and process costing. But management will be benefited more if we can have more professional cost and management accountants in the department. (B12)

We have cost accounting in use in our organization, but not as required. We can use our highest efficiency and make the organization more profitable if we have a separate cost accounting department with knowledgeable professional accountants. (B5)

Some interviewees clearly stated that they were not at all satisfied with the cost accounting services. They also thought that they could use their full efficiency and make the organization more profitable if they had a cost accounting department with properly educated and professionally trained accountants. Here are some examples.

I am here with the seafood industry. We do processing and exporting. There is no proper cost accounting system in this sector. I believe that without a proper costing system, it is very tough to make the organization profitable. (B2)

I am working as a comptroller of an educational institute. We're not using any costing system in this institute. So, we cannot calculate per student cost; even we do not analyze employee cost from our HR (Human Resources) Department. For that reason, we cannot control employee cost properly due to having no cost accounting system in the institute. (B3)

I am not really satisfied. The use of cost accounting in my organization is not adequate. We have to increase the use of cost accounting as much as we can to reduce cost to have a very competitive sales price, and for that reason we need a cost accounting department with outfitted personnel. (B4)

We need to develop the accounting department by hiring professional employees. We have to have more professional accountants to serve the department properly. Then, the cost accounting department will be able to reduce production and service cost, as well provide the necessary information to the management body to take proper actions. (B18)

Interviewees from those organizations that had separate cost accounting departments and professional cost accountants were very satisfied with their departments and performance. Others felt the need for more professional accountants to perform the departments in a better way. On



the other hand, some were not at all satisfied, as they did not have any cost accounting department or professional accountants.

**Education for cost accounting.** Almost every one of the interviewees positively stated that to serve the cost accounting department effectively, education in cost accounting with job-related practical training should be mandatory. A majority of the interviewees explained that professional education in cost and management accounting with job-based professional training could help to serve the department very efficiently.

*Necessity.* Here are some opinions from those who thought that basic (academic) education in cost accounting with job-related training was sufficient enough to serve the cost accounting department.

Basic (academic) accounting knowledge is mandatory, and at the same time, training on recent global changes and international standards is also required. An accountant should understand the difference between performance, offense, right and wrong, and of course he/she should do what is ethical. Window dressing is not desirable. (B1)

Cost accounting education and related organizational-based practical training is needed to perform a respectful job. Accountants need to know reconciliation of cost accounting and financial accounting. (B4)

Academic education is enough to use cost accounting in an organization. But practical training on cost accounting helps to do the proper cost accounting practice. (B2)

Education and training on cost and management accounting is good enough with an academic degree in accounting from a recognized university. (B18)

Some interviewees stated that practical training was more important than education to serve the department. Education, in that regard, could help to serve better. Here are few examples.

Academic education can improve cost accounting, but practical training on cost accounting is necessary to practice cost accounting in an organization. So, any academic or professional education on cost accounting with proper use of cost accounting training can make significant contributions to the development of any organization. (B2)

Any additional training in the similar field (cost accounting) can help an employee to perform his or her job confidently. Practical training on cost and management accounting can especially help a cost accountant to complete his or her job perfectly and professionally. Cost accounting education also helps the candidate for better understanding the job and responsibility. (B4)

Some of them believed that academic education in cost accounting with job-oriented training was good enough to serve the department. But additional professional education could serve the department in an ideal way to enjoy the highest benefit from the department. Here are some examples.

An accountant having academic degree in accounting (Masters in Accounting) can serve the Accounting Department with the help of senior teammates or practical training in the same field. Additionally, if an accountant has any professional degree (especially in cost and management accounting, like CMA), then he/she can contribute a lot to the organization. (B13)

Academically, graduating with a Master in Commerce (Accounting Major) is good enough to run the department if they have the job-oriented training. But at the same time, professional education in accounting, such as CA (Chartered Accountant) or CMA (Cost and Management Accountant), would be very helpful to serve the department. (B15)

For some small organizations, basic (academic) education in accounting with extensive practical experience in the similar field can help the department. But obviously, professional education in the field of cost accounting can help to perform cost accounting effectively. Cost and management accounting education, along with related practical training, is essential for the development of the organization. (B7)

Most of the interviewees confidently stated that the professional education in cost and management accounting with professional training in the similar field was mandatory to run the accounting department perfectly to have the highest benefit. Here are some examples.

Any effective education in cost and management accounting can help the department. But in Bangladesh, the CMA (Cost and Management Accountant) degree from ICMAB (The Institute of Cost and Management Accountants of Bangladesh) is the perfect degree for an accountant to perform his/her duties in an organization. Also, additional training (by seminar and workshop) provided by the institute (ICMAB) helps to perform the respective job effectively. (B8)

Especially professional degrees, such as CMA (Cost and Management Accountant), CWA (Cost and Works Accountant), and CPA (Certified Public Accountant) etc., can

help to perform cost accounting effectively. Professional training also helps to serve the department effectively. (B12)

Highest academic education in accounting from any recognized university with CMA (Cost and Management Accountant) professional degree from ICMAB (The Institute of Cost and Management Accountants of Bangladesh) is an ideal education to serve the cost accounting department in an organization. Also, job-oriented training would be more helpful. (B17)

An accountant should have an accounting background with professional education in cost and management accounting. In addition, if he/she has practical training in the same field, that could bring an extra help for the department. It is really tough to run the cost accounting department properly without having cost and management accounting education with professional training or practical experience—especially in cost accounting records, standard costing, budget, etc. (B20)

*Availability—Academic and professional.* Some interviewees stated that both academic and professional institutions provide adequate education in cost accounting in the country. A few examples follow.

ICMAB (The Institute of Cost and Management Accountants of Bangladesh), ACCA (The Association of Chartered Certified Accountants), ICAB (The Institute of Chartered Accountants of Bangladesh) and universities (public and private) offer detail cost accounting education. In Bangladesh, the university level of cost accounting education is adequate enough, which means International Standard. (B1)

Mainly ICMAB (The Institute of Cost and Management Accountants of Bangladesh) provides in-depth education in cost and management accounting. Also, all accounting departments in government or private universities in the country, including ICAB (The Institute of Chartered Accountants of Bangladesh), and BADC educate an adequate level of cost accounting. (B7)

ICMAB (The Institute of Cost and Management Accountants of Bangladesh) provides the best quality of education and training in the field of business in Bangladesh. Also, accounting departments and business administration departments in the recognized universities in Bangladesh are offering accounting and business education. (B8)

Some interviewees clearly stated that among professional institutions, only ICMAB provided proper and effective education and training for cost accounting in the country. Academic institutes did not provide in-depth education or training in cost accounting, in their opinion. Here are some examples.

In fact, ICMAB (The Institute of Cost and Management Accountants of Bangladesh) is the only institute offering proper and effective cost accounting education and training in Bangladesh. Besides, ICAB (Institute of Chartered Accountants of Bangladesh), government or private universities are also offering education on cost accounting and that is not adequate enough for the larger organizations in the country. (B2)

ICMAB (The Institute of Cost and Management Accountants of Bangladesh) and ICAB (The Institute of Chartered Accountants of Bangladesh) provide proper education and training in cost accounting. Universities are also providing cost accounting education, but that is not up to mark. So, the academic system should be updated for the present need of organizations. (B3)

**Needed changes to cost accounting.** All interviewees saw the need for and advantage of developing cost accounting education and training in the country. Some interviewees stated that most of the entrepreneurs were not aware of the benefit of use of cost accounting. They felt they had to make entrepreneurs, as well as management, aware of the importance of use of cost accounting. Other interviewees stated that the government should make cost auditing mandatory, so that they would be bound to use cost accounting.

*Education.* Some interviewees clearly stated that the country needed modern and need-based education to improve cost accounting education and training. Here are some examples.

The atmosphere of the world is changing daily; the educational environment should have to be changed and updated. Professional institutes in this field can play a vital role. They should update their curriculum to provide modern knowledge and experience to serve respective departments. (B12)

In fact, ICMAB (The Institute of Cost and Management Accountants of Bangladesh) is the only institute in Advanced Cost Accounting field in Bangladesh. So, ICMAB should be more active with their teaching staffs. The institute should provide very effective and practical education that the modern era needs. The institute should also arrange more seminars and workshops to provide modern and practical use of cost and management accounting among its members and business owners. (B8)

Teaching staffs should be enriched in all educational institutions in the related field. Curriculum of courses should be updated in a timely manner. (B14)

The institutes, those who provide cost accounting education, should arrange practical orientation, case studies, seminars, etc., to make cost accountants more equipped to use cost accounting as per their organization's needs. (B5)

A very practical approach is needed with any academic or professional education in accounting. All institutes in this field should arrange internships for all fresh graduates before offering their degree. (B16)

Hopefully, suggestions should be coming from entrepreneurs to develop curriculum to get maximum benefits from costing departments. So, of course, education/training should be developed as per the requirement of the country's need. (B3)

*Management.* According to interviewees, awareness among entrepreneurs and the management body was the main key to improve cost accounting education/training. Here are some opinions.

We have to develop entrepreneurship in our country. Then entrepreneurs will implement cost accounting for their own interest to develop their business. In fact, now we have to educate our entrepreneurs as to the importance of using cost accounting. Then, usage of cost accounting will be increased in the country. (B3)

Financing institutions can make some bindings to all business organizations. Where they finance, they have to have a cost accounting department for the survival of the business and to get their investment back. (B7)

Cost accounting training is more important than education. The training should be very specific organizational training. All institutes, those offering professional education or training, should inform entrepreneurs about the importance of training or a professional degree for an organization by seminars and symposiums. Then entrepreneurs will be interested in providing training or timely education to their employees for the development of their organizations. (B13)

*Government.* Several interviewees thought that cost audits needed to be mandatory by the government to improve cost accounting education and training in the country.

Statutory requirement of cost accounting records should be introduced for all companies by the government. Then, every organization or entrepreneur will be interested in serving the accounting department differently with sufficient professional accountants. Obviously, professional institutes will be bound to produce more graduates to serve the country. (B19)

Cost audit should be mandatory to increase the use of cost accounting in the country by the government. (B14)

The government of the country should take attempts to make cost audit compulsory. Then, every organization will be bound to have a cost accounting department and proper cost accounting practice. (B13)

Use of cost accounting should be mandatory by the government for each and every organization. Then, organizations will start using cost accounting and cost accountants will be bound to acquire experiences for their job requirement. They will find the mechanism to use cost accounting the best way. (B2)

## **Summary**

The findings from the questionnaires and interview data analysis are presented in response to the research questions. The results show that the use of cost accounting is not up to expectation due to present obstacles to use of cost accounting in business enterprises. Every organization should have a separate cost accounting department to enhance the use of cost accounting to get the expected gain from the department, as most of the organizations desire to have a separate cost accounting department. Cost and management accounting education and job-based practical training should be developed in the country in order to have the highest benefit from the department.

The use of cost accounting starts with the process of recording cost data and ends with providing necessary information to management to take proper decisions for the organization by a long process of analyzing cost data. According to the descriptive questionnaire data, only 32% of companies were found to have a separate cost accounting department. That means only 32% of organizations have cost accounting departments out of 96% of organizations that have financial accounting departments. Still, 86% of the total surveyed organizations were found to feel the need for having a cost accounting department. Only 14% were found not to feel the necessity of having a department due to their operational function.

According to the interview data, cost accounting is the heart of an organization to serve the management with all kinds of cost data, as well as necessary information, to take proper

decisions for the growth of an organization. According to the descriptive questionnaire survey, 86% of the respondents were found to desire having a cost accounting department. One hundred percent of public enterprises and joint venture companies were found to desire having a cost accounting department. It is very clear that cost accounting is thought to act as a tool of management for making optimum use of scarce resources and ultimately adds to the profitability for the respective organization. A cost accounting department is deemed essential for overall growth of an organization.

According to the interview data, some interviewees were not satisfied with the services provided by their cost accounting department. They saw the need for their department to be more equipped with professional personnel. Some other interviewees strongly stated that they were very satisfied with the services provided from their cost accounting department by professional cost and management accountants with job-oriented training.

This research study has pointed out some obstacles to use of cost accounting in the country. These obstacles mainly have been categorized as absence of statutory requirement, lack of appreciation of its importance, and lack of qualified manpower. Out of the total organizations surveyed, 72% of respondents indicated that the absence of statutory requirement, 57% of respondents indicated that lack of appreciation of its importance from their management or entrepreneur, and 31% of respondents stated that the lack of qualified manpower were obstacles to cost accounting practice in the country.

According to the interview data, business departments in colleges and universities offered cost accounting courses in graduate and master's programs. Those courses did not seem to be adequate enough to provide in-depth knowledge in cost accounting. Some of our interviewees stated that the courses were still adequate when combined with the job-related practical training

for an organization. Most of the interviewees, however, very confidently said that professional education in cost and management accounting, especially from ICMAB, with professional training could make a significant contribution to gain the highest benefit for an organization. According to our descriptive questionnaire data, 32% of respondents out of the total organizations surveyed stated that cost accounting education facilities were adequate, 55% stated they were moderate, and 14% realized they were inadequate.

According to the interview data, educational institutes were not providing practical training as required for business organizations in Bangladesh. All institutes needed to incorporate sufficient hours of training programs and/or internships in their course curriculum. Similarly, as per the descriptive questionnaire data, 2% of respondents commented about training facilities as adequate, 47% commented as moderate, and 51% commented as inadequate.

Eighty-four percent of respondents to the questionnaires and the majority of the interviewees believed that cost audit should be mandatory for the development of industries and that help should be provided to improve cost accounting education and training in the country.



## **Chapter 5: Discussion and Recommendations**

### **Overview**

The purpose of the study was to identify the present level of use of cost accounting in business enterprises in Bangladesh. The research identified the need, as well as the areas of current problems and prospects, of use of cost accounting and its educational requirements. The study was conducted by the nature and type of organizations in the main cities of Bangladesh. The aim of this study was to expand the depth of investigation in the cost accounting field by the descriptive qualitative method. The data from questionnaires were combined with interview data to answer four research questions:

1. What is the level of use of cost accounting in Bangladesh by nature and type of organization?
2. What are the users' perceptions of the importance and need of cost accounting procedures?
3. What are the users' perceptions of use of cost accounting and possible obstacles?
4. What are the users' perceptions of education needed in order to meet cost accounting needs in Bangladesh?

The data collection in this study consisted of two parts. First, descriptive and demographic questionnaires were utilized to investigate the level of cost accounting use in Bangladesh and the need, as well as the possible obstacles. The study collected 100 completed questionnaires from manufacturing, trading, and service organizations based on a larger volume of production or services. Second, interview questions were utilized to collect data by open-ended interviews to identify the importance and need of use of cost accounting and the required education in order to meet cost accounting needs in business enterprises in Bangladesh. Twenty

organizations were selected for face-to-face interviews. The interviewees were the managers or heads of the accounting departments.

There were many complications that arose, including those in the country of Bangladesh, which had caused a delay in the study. The original 100 completed questionnaires were obtained in 2005. During the delay, the researcher used this opportunity to re-examine the data and to conduct additional interviews. Those additional interviews were conducted at the 5-year point, and showed the original research problems to still be appropriate.

Ten more interviews were conducted in 2010 with the managers or heads of the accounting departments who had not participated in the 2005 data collection. Because the degree to which respondents were forthcoming varied (see discussion of interview procedures in this chapter), 10 providing the most comprehensive responses were selected among 20 that were collected in 2005, and 10 that were collected in 2010.

The researcher tried to record the interviews, but the interviewees felt uncomfortable knowing the conversation was to be recorded. The interviewees thought the discussion would somehow be disclosed and they might lose their jobs, as they were disclosing their official secrets. Besides that, they requested several times to keep their identity anonymous in their interview period. Some interviewees were quite nervous when they saw the tape recorder and tried then to avoid the interview. "Almost every qualitative interviewer has had a respondent who hesitated before sharing a confidence and then said something like 'Would you mind turning off the tape recorder, because there is something I want to tell you I don't want to have on the tape?'" (Weiss, 1994, p. 53). As a result, detailed notes were taken while conducting the interviews to make the interviewees fairly comfortable, in order for them to speak openly. Besides, according to Belson (1967), the data from recorded or without recorded interviews are

mostly similar. “The recorded and the nonrecorded samples were closely matched, on an empirical basis, in order to increase the meaningfulness of the comparison of (estimated) accuracy with and without the recorder being used” (Belson, 1967, P. 254).

The participants were assured during the interview period that their identity would remain anonymous and would not circulate in any written records. Thus, those selected 20 interviewees were renamed as B1 to B20, and every interviewee’s position in the respective organizations, gender, academic and professional educational background, and training were coded (Appendix E).

Analysis of the data from Chapter 4 resulted in the following major themes:

1. Contribution of cost accounting
  - a. Decision-making
  - b. Expansion
  - c. Efficiency
2. Satisfaction with cost accounting in current companies
3. Education for cost accounting
  - a. Necessity
  - b. Availability—Academic and Professional
4. Needed change to cost accounting
  - a. Education
  - b. Management
  - c. Government

This chapter presents a descriptive discussion of the research findings focusing on the following key factors: (a) cost accounting and its contribution, (b) business environments and

satisfaction with cost accounting, (c) obstacles to use of cost accounting, (d) awareness of use of cost accounting, (e) cost accounting education, and (f) cost audit and its contribution. The discussion of each topic will include related changes needed.

### **Cost Accounting and Its Contributions**

With the changing world, the product market is becoming very competitive and challenging day by day. Cost accounting is essential for combating the competitive market by offering quality products or services at a reasonable lucrative price. Cost accounting starts its process for controlling cost from the point at which the expenditure is incurred. Management of an organization can make effective decisions by receiving accurate data from the cost accounting departments. By use of cost accounting, an organization can use its highest efficiency with the increased volume. As a result, cost accounting contributes to an overall growth of an organization.

As Bangladesh is a densely populated country; most of the businesses in the country can easily survive or make a sufficient amount of profit due to the huge number of consumers in the country. For that reason, it was not previously necessary for entrepreneurs to think of an alternate way to run the business for survival, especially those who were doing inland businesses. Due to the easy way of business, among the 100 organizations surveyed, only 32% were found to have separate cost accounting departments. None of the private limited companies had a separate cost accounting department. Now, competing with the changing world, businesses need help from cost accounting that offers competitive prices by controlling cost and reducing wastage and overhead expenses to enlarge the product market for growth and to increase the efficiency by providing timely information. Thus, the overall contributions of cost accounting can be segregated by (a) information, (b) growth, and (c) efficiency.

**Information.** Decision making is a vital issue for a business organization from its survival to reach the topmost place of success, and the process of making these decisions depends completely on necessary information provided by the cost accounting department of an organization. Each organization must have a fully equipped cost accounting department as per their capacity to provide accurate information to management to make effective decisions for the organization. Most of the interviewees offered similar opinions, as represented in the following:

Cost accounting can provide necessary information to the management body for effective decision making: for example, pricing decisions, productivity, cost control, and any other decision related to production or any kind of capital investment. (B5)

Professional cost accountants can provide necessary and proper information to top management to make the dynamic decisions. They can help directly with future planning and budgeting. (B15)

Cost accounting starts with the process of recording cost data and ends with summarizing all data by a long process of analyzing cost data to provide all necessary information to management to take proper decisions for the organization. Cost accounting is “the process of accumulating the information that managers need about the various costs within the organization” (Larson & Jensen, 2005, p. 4). Management makes the decision depending on the information provided by the cost accounting department of an organization, and the success of the organization depends on the right decision taken by management. A “wrong or unimportant decision may cause a huge amount of loss to the organization or decision-maker. Effective decision may bring glorious success for the organization” (Bhuiyan, 2014, p. 46).

Cost accounting is the branch of accounting often referred to as managerial or management accounting that provides economic and financial information to the management body within the business organization. “Modern cost accounting is often called management

accounting because managers use accounting data to guide their decisions” (Rayburn, 1993, p. 103).

**Growth.** Cost accounting helps to make extra profit by controlling costs for the benefit of owners or shareholders by maximizing the profit of the organization that converts into expansion of the business. Therefore, cost accounting is essential for the growth of an organization. Several interviewees offered the same opinion, as represented in the following:

Cost accounting can make very significant contributions for the growth of an organization. By analyzing cost, cost accounting can reduce cost for maximizing the profit without sacrificing the quality of the product. This extra profit can make further investment for the growth of an organization. I definitely believe that an organization cannot be a losing concern if they use cost accounting properly as mandatory. (B9)

For the growth of an organization, cost accounting helps to make extra profit by controlling cost through reducing wastage and all overhead expenses. “The information supplied by cost accounting acts as a tool of management for making optimum use of scarce resources and ultimately adds to the profitability of business” (Arora, 2004, p. 18). An organization can have significant growth by reinvesting the extra profit made by the help of the cost accounting department. With the expected growth, an organization can enlarge product markets by considering opportunity costs. “Opportunity costs are the measurable value of an opportunity bypassed by rejecting an alternative use of resources” (Matz & Usry, 2003, p. 689).

**Efficiency.** Cost accounting can reduce sales price by controlling production cost, but without sacrificing the quality of a product. Cost accounting is essential to enlarge product markets by offering competitive prices in the domestic and the international markets. An organization can utilize its full efficiency when an organization can extend its product markets. Many of the interviewees offered the same opinion, as represented in the following:

Knowledge and application of cost accounting concepts enhance efficiency of any type of organization. The cost accounting department can reduce sales price by controlling

production cost and that helps to enlarge the market for that product. An organization can utilize its maximum efficiency if the company can enlarge the market for product. (B7)

Proper use of cost accounting reduces the cost of products to sell with a minimum optimal price without cutting the desired margin. It is very easy to extend the product market with the competitive price and that helps to use the highest efficiency for an organization. An organization never gets threatened for survival in this competitive market if the organization can use its highest efficiency in production. “The use of cost accounting makes a company more effective in fighting these rivals” (Kwan, 2011, p. 23). Similarly, the descriptive questionnaire data support the importance of use of cost accounting; 86% of the respondents were found to feel the need to have cost accounting departments. Among those 86% of respondents, 100% of public enterprises and joint venture companies were found to feel a need for having cost accounting departments. Only 14% were found not to feel the necessity of having the department due to their operational function.

Entrepreneurs and management groups need to make changes. According to the interview data, cost accounting is a prime factor for decision making, growth, and increasing the efficiency of an organization. Similarly, the descriptive questionnaire data also support the belief of the importance of use of cost accounting, with 100% feeling the need to have cost accounting departments for public enterprises and joint venture companies. For the proper use of cost accounting, the entrepreneurs and management groups should be aware of the importance of use of cost accounting in their organization to have a separate cost accounting department with educated and well-trained staffing to increase the efficiency for overall growth by providing accurate data from the department.

## **Business Environments and Satisfaction with Cost Accounting**

“Political instability remains the key impediment to economic development in Bangladesh” (Hossain, 2000, p. 508). Business enterprises are being developed upon the investment in the business market, and investment depends on the business environment of the country. “Now-a-days, companies are increasingly aware of the environmental aspects of their businesses because behaving in an environmentally responsible manner is an essential ingredient to the long term survival of companies” (Haque & Sharif, 2013, p. 6). The country is suffering with political instability, deterioration of law and order, along with labor unrest. “Political instability has been a notable feature of Bangladesh since her birth in 1971” (Ahmed & Pulok, 2013, p. 61). Political stability is deteriorating day by day in the country. “With the passing of time, the hope for political stability is becoming more illusory and people from all walks of life are losing confidence in the ability of the present political leadership” (Hossain, 2000, p. 508). Political parties (opposition groups) are calling strikes several times per year and that shuts down the whole country. These strikes greatly affect the country due to having impacts such as a mass protest often involving a total shutdown of all businesses, communications, workplaces, offices, shops, and courts of law as a form of civil disobedience. In addition, lots of labor unions, including different associations in the country, are often going on strikes without considering any affect on economic development in the country. These strikes disrupt the flow of production for uncertain periods, and this affects foreign markets. Therefore, the political stability and the rule of law and order are closely linked with the security of life and property. As long as the country does not have its law and order stable, it is difficult to encourage entrepreneurs to invest in businesses. “Foreign investors feel free to come to a country or society where there is good governance and the accountability and transparency are ensured” (Islam, 2005, p. 94). An



encouraging business environment cannot be created in a country as long as entrepreneurs do not feel that their lives and properties are secured. For that reason, accountability and transparency is essential in any business organization and proper use of cost accounting can assure these requirements to create a favorable business environment.

**Satisfaction with uses.** Investment depends on the business environment of a country, and use of cost accounting depends on the demand of these business enterprises. Cost accounting is an extended branch of financial accounting, so all business enterprises should have financial accounting, though not all of those enterprises may have cost accounting systems in use. Ninety-six percent of the total surveyed organizations were found to have a separate financial accounting system in use. Among them, only 32% were found to have a separate cost accounting department.

Those organizations that have fully equipped cost accounting departments are very satisfied with the services provided by those departments. Here is an opinion from several interviewees, which describes how satisfied they are with their cost accounting services.

I'm also directly involved in the cost accounting department. Our cost accounting department provides information properly to management, as we have our cost accounting department fully furnished by required professional accountants. So the department helps to grow the organization by providing all necessary information and calculations. (B7)

**Satisfaction with development.** Other interviewees were also satisfied with their cost accounting services, but they still expected more development in that department by having more professional personnel or by creating separate cost accounting departments. Others were not satisfied, and they felt the need to have a proper cost accounting department for the growth or survival of the organization. Here are two opinions from several interviewees who were not

satisfied with their cost accounting services, and they felt a need to have separate departments or improvement of the existing services.

I am not satisfied with the department. We do not have sufficient professionally equipped people in this metal industry to run the organization properly. We require professional cost and management accountants to control costs properly for maximizing profit. I strongly believe that we need required qualified cost accountants in the cost accounting department for any production industry to run efficiently for the growth of that particular organization. (B14)

We do not have a separate cost accounting department, but we perform cost accounting jobs as required. We already developed some areas after this unrest in the global economy worldwide. However, I believe that a production-oriented organization cannot run properly without a separate cost accounting department. (B6)

Similarly, according to the descriptive questionnaire data, 68% of surveyed organizations do not have a separate cost accounting department. The questionnaire data supports the belief that a cost accounting department is needed, as 86% of 68 organizations were found to feel the need for having a cost accounting department. Only 14% were found not to feel the necessity of having the department due to their operational function.

Changes are needed. Representatives of organizations that had fully equipped cost accounting departments were satisfied with the uses of the departments. All others felt a need to develop the departments in order to apply the best uses of cost accounting for the organizations. This means all organizations should develop their cost accounting departments with well-trained professional accountants.

### **Obstacles to Use of Cost Accounting**

“Like many other developing countries, most companies in Bangladesh are either family owned or controlled by substantial shareholders (corporate group or government). Company managements are effectively just extensions of the dominant owners” (Farooque, Zijl, Dunstan, & Karim, 2007, p. 7). Privately owned organizations usually do not proceed to compete with

modern globalization changes; rather they take short-cut ways to make profit. Since Bangladesh is an overpopulated country, most effective businesses can easily make good profit due to having a massive number of consumers. “Bangladesh is a combination of competitive market, business-friendly environment and cost structure that can give the best returns” (Doing business in Bangladesh, 2012, p. 3). Therefore, cost accounting is not being used in all types of business enterprises as needed. Large-scale organizations, especially national or international market-based organizations, are using proper cost accounting for their growth or for their survival in challenging markets. In fact, cost accounting standards should be developed and circulated among all organizations and users for uniformity.

There are three factors that were identified by the descriptive questionnaires and interview data as obstacles of use of cost accounting: (a) absence of statutory requirement, (b) lack of appreciation of its importance, and (c) lack of qualified manpower. A good number of participants also mentioned several factors that were inhibiting the cost accounting practice in their business organizations.

**Absence of statutory requirement.** In Bangladesh, the statutory requirement of cost accounting is not enforced equally among all types of enterprises by the government of the country. All kinds of business enterprises would benefit by using proper cost accounting if it was compulsory by the government. In addition, entrepreneurs should adjust to use of cost accounting for their own benefit. Several interviewees offered the same opinion, as represented in the following:

We need to make cost accounts and records mandatory. We need to make entrepreneurs or business personnel more interested in cost accounting uses. Government should take the initiative to make cost accounting compulsory for every organization by implementing cost audit. (B20)

Organizations are using cost accounting as required to survive in the global challenging market. The government, thus, should frame separate cost accounting record rules and make them mandatory to implement for all organizations suiting their needs. The descriptive questionnaire data supports the belief that statutory requirement of use of cost accounting is needed, as 72% of respondents indicated that the absence of statutory requirement was one of the obstacles to cost accounting practices in the country.

**Lack of appreciation of its importance.** The worldwide business market is becoming competitive day by day. For that reason, management should be more careful to develop their business by applying all necessary techniques. “Globalization and the increasing complexity of business, together with high-powered computing technology, have contributed to the development of new management accounting techniques all over the world” (Shill & Paramanik, 2012, p. 181). Cost accounting is one of the best techniques to apply for the survival or development of a business. “To produce the quality products with low-price, managers of the manufacturing organizations are now using different types of cost accounting techniques” (Debnath, 2012, p. 22). Cost accounting helps to offer a product with a lucrative price in the competitive market that can enlarge the product markets, as well as earn extra margins to expand the business. Therefore, entrepreneurs or management groups should know the importance of using cost accounting for an organization that makes the business successful. Interviewees offered the following similar opinions.

A major portion of entrepreneurs does not know the importance of cost accounting. So, they do not use proper cost accounting in their organizations. They need to know about the benefit of cost accounting, so that they will be interested in implementing a cost accounting system in their organizations. The institutes, those who providing cost accounting education, should arrange practical orientation, case studies, seminars, etc., to make cost accountants more equipped to use cost accounting as per their organization's needs. (B5)

We have to give more importance to the use of cost accounting in our business organizations. We also have to make those who are employed in the accounting area more interested in using cost accounting. Institutes need to allocate new graduates among the enterprises as per their capacity with updated knowledge. Professional institutes should introduce publicly the importance of use of cost accounting in business enterprises. (B15)

Cost accounting has some formulas that can reduce cost for maximizing profit without sacrificing the quality of a product. I strongly believe that an organization can never become a losing concern if they use cost accounting formulas properly. (B2)

A majority of the entrepreneurs in Bangladesh are not educated enough in the business or cost accounting field, so they expect straight margin to get back their investment without considering critical path analysis. “Lack of skilled and efficient human resources is also an impediment to entrepreneurship development in Bangladesh” (Islam, 2005, p. 94). They consider it an extra expenditure to use the cost and management accounting in business. They do not feel that use of cost accounting can help to develop the business in the long run. As a result, the entrepreneurs do not value the use of cost accounting in their business enterprises and avoid the extra cost for implementing it. In fact, entrepreneurs and top management groups need to be educated about the necessity and the importance of cost accounting use in their business enterprises, so they will be attentive to start using cost accounting for their own interest to develop their businesses. Similarly, the descriptive questionnaire data showed the same result, that 57% of respondents indicated that the lack of appreciation of its importance is also an obstacle to the cost accounting practice.

**Lack of qualified manpower.** Qualified manpower in cost accounting is essential for the development of a business organization. Professional education in accounting is very important to serve the accounting department of an organization. Similar opinions from interviewees were as follows.

Any additional academic or professional qualification in the related subject can really help if any particular department wants to work effectively. (B3)

If the candidate is CMA qualified, then it would be very helpful for the cost accounting department, as well as for the organization as a whole. At the same time, practical training in cost and management accounting could bring additional help for the organization. (B8)

“In Bangladesh, there are two professional accountancy bodies – the Institute of Chartered Accountants of Bangladesh (ICAB) and the Institute of Cost and Management Accountants of Bangladesh (ICMAB)” (Hossain & Uddin, 2012, p. 13). These two institutes also organize professional training of CPD (Continuing Professional Development). Between these two institutes, ICAB emphasizes more of the financial accounting, rather than the cost accounting; whereas ICMAB emphasizes the cost and management accounting as more courses are in its curriculum. Both institutes also provide licensure and membership among the certified personnel to practice in the similar field. Therefore, these two institutes should enhance their institutional capacity to produce more professionals and to regulate cost accountancy and audit to meet the organizational demand. Unfortunately, a very low number of candidates are being qualified every year from these two professional institutes, whereas the country has a huge inland demand for professional personnel. “The country does not have adequate number of technically qualified and competent persons of integrity at the moment” (Islam, 2005, p. 94). It seems that these two institutes need to enhance their capacity to produce the required number of CAs or CMAs to fulfill the demand in the job market. “The country is lagging behind in capitalizing on this great deal of human resource due to lack of proper education and training for it” (Khan et al., 2014, p. 1). According to the descriptive questionnaire data, 31% of respondents stated that the lack of qualified manpower is an obstacle to cost accounting practice in the country. Although the percentage is not as high as the other two factors, nearly a third of the respondents supported the

interviewees' belief that the country needed more qualified staffing in the respected field to meet the country's organizational demand.

Businesses need to press for changes. Entrepreneurs, as well as management groups, need to be aware about the importance of use of cost accounting to achieve the optimal benefit from the cost accounting department. Academic and professional institutes should produce the sufficient manpower as required to fulfill the country's organizational demand. Statutory requirement of use of cost accounting is also essential in order to implement the mandatory use of cost accounting in all kinds of business enterprises.

### **Awareness of Use of Cost Accounting**

In Bangladesh, most entrepreneurs are not as educated as they should be. In describing their research, Hossain and Rahman (1999) pointed out that “62 percent of the sampled entrepreneurs were illiterates (though they have acquired the ability to sign their names), 30 percent completed primary education, and the remaining 8 percent had education levels beyond primary school” (p. 10). Most of the entrepreneurs are running their businesses in a more traditional way and are not yet prepared to challenge the competitive business environments. They are still surviving, only because of the country's incomparable density, which creates the unparalleled inland demand. As the world is changing every day, the business environment is also changing accordingly. Therefore, entrepreneurs and management groups need to be aware of the importance of use of cost accounting in their organization to survive this competitive market. According to the interview data, awareness among entrepreneurs, as well as management bodies, was the main key to increasing use of cost accounting within their business organizations. Interviewees offered the following similar opinions.

We need to make entrepreneurs understand the necessity of cost accounting for the development of business organizations. The institutes of the accounting profession need

to show the benefit of use of cost accounting in the business organization by conducting seminars, magazines, newspapers, etc. On the other hand, government can make a proper cost accounting system mandatory for business organizations. (B7)

We need to increase use of cost accounting in business enterprises. The top management of organizations should be motivated and educated regarding the benefits of use of cost accounting. The institutes, those providing cost accounting education, should take the initiative to motivate and educate entrepreneurs regarding the importance of cost accounting for the growth of an organization by offering frequent seminars and symposiums. (B9)

All entrepreneurs and management bodies should be more aware about the challenging business environment in order to compete in the combative market. “With increased global competition, manufacturers face ever-changing condition in the market” (Naima & Uddin, 2013, p. 22). To offer quality products or services with a competitive price, entrepreneurs and top management groups need to be well-educated about the necessity and importance of use of cost accounting in their business enterprises. That way, entrepreneurs will start using cost accounting for their own interest to develop their businesses. “Executives do not know much about CMAs” (Mazumdar, 1994, p. 101). Consequently, executives need to be aware of the importance of cost accounting use for having the optimum utility. With the help of cost accounting, managements can easily challenge the vastly growing market with their products and services. “By recognizing the importance of cost accounting in a company’s daily operations, management can more easily handle global markets and actually become a standard among other organizations” (Kwan, 2011, p. 24). When entrepreneurs become familiarized with the importance of use of cost accounting within their business enterprises, they will arrange replacements for professional personnel, especially CMAs, or they will insist their employees in accounting departments become CMAs from ICMAB, due to having improved services for the organizations. “A Cost and Management Accountant (CMA) always aims at a sustainable growth of a company” (Ameen, 2013, p. 44).



Thus, business enterprises will have a greater number of professional accountants for enhanced services.

Changes must be instituted. Entrepreneurs need to be educated about the importance of use of cost accounting in their organizations to attain the most benefit from the departments. Professional institutes should play a vital role to make entrepreneurs aware of the importance of professional personnel, especially CMAs, by seminars, symposiums, or promotional letters explaining the role of cost accounting and the services that a CMA can provide for an organization.

### **Cost Accounting Education**

A person should have the perfect combination of education in cost accounting, as well as a required job-based training, to perform the cost accounting job properly for the benefit of the respective organization. According to the study's interview data, similar opinions were found.

Accountants should have a commerce background with sufficient cost and management accounting courses. They have to have practical training in the similar field. (B3)

It is now clear that we need a well-built combination of education in cost accounting and on-the-job training in the similar field. In Bangladesh, there are two types of education systems available in accounting: academic education and professional education. Besides the theoretical education, job-based practical training is very essential.

**Academic education.** In Bangladesh, business departments in colleges and universities offer limited cost accounting courses in graduate and master's programs. These colleges and universities generally are known as academic institutes in the country. However, these limited courses are not sufficient to provide in-depth knowledge in cost accounting. For that reason, many interviewees suggested to incorporate more of the cost accounting courses in all the academic institutes.

More courses on cost accounting should be introduced in academic institutions such as in business departments in universities. Practical costing practice should be incorporated in the accounting curriculum. (B20)

In Bangladesh, all institutions such as primary schools, high schools, colleges, and universities are known as academic institutions, and most are run by the government or by the semi-government. Therefore, all these academic institutions are affected by the country's political instability. As Bangladesh is suffering with political instability and deterioration of law and order where lives, along with properties, are not secured, similarly, the education sector is involved with the country's politics and corruption. "Whenever we think about the education sector of the country, we see politicization, nepotism and corruption everywhere" (Raju & Rahman, 2012, p. 1). A solid environment on all campuses of the educational institutions should be arranged to ensure safety for students, which helps to build their future life, as well as the development of the country. The academic educational institutions, from elementary schools to universities, are politically corrupted and managed by the political leader's favoritism. "It is very unfortunate that without political patronization, none can be the Vice Chancellor of a University and, at the same time, without giving bribes to the local Member of Parliament, none can be a primary school teacher" (Raju & Rahman. 2012, p. 1). This favoritism hampers the selection of the perfect set of teaching staff in order to provide the desired level of education, which will definitely help to build the students' career. "Quality of faculty is not up to the desired level" (Monem & Baniamin, 2010, p. 300). At the same time, political unrest creates several strikes on the campuses that delay the students' completion of their education. "The net result is factionalism: chaos and session-jam" (Monem & Baniamin, 2010, p. 300). Most of the higher academic institutes such as universities are even running for 4 years or more behind to complete their graduation.

Educational leaders must push for changes. More cost accounting courses should be incorporated in all of the programs in business schools to obtain the strength to serve the cost accounting departments in the competitive business market.

**Professional education.** Besides all of these academic institutes, there are two prominent institutes in the country under the Commerce and Finance Ministry, known as “professional” institutes in the accounting profession. One is ICMAB (The Institute of Cost and Management Accountants of Bangladesh), and the other is ICAB (The Institute of Chartered Accountants of Bangladesh). Most interviewees very confidently expressed their views that to operate the large-scale organizations perfectly, the professional education in cost and management accounting, especially from the ICMAB, with proper professional training in the similar field, was mandatory for having the highest benefit for the organizations. Some interviewees stated that cost accounting education from academic institutes with job-related training was sufficient to serve the cost accounting department. However, they believed that additional professional education could serve the department better to enjoy the highest benefit for the respective organization. Similar opinions from several interviewees were as follows:

An accountant having an academic degree in accounting (Masters in Accounting), can serve the accounting department with the help of senior teammates or practical training in the same field. Additionally, if an accountant has any professional degree (especially in cost and management accounting, like CMA), then he/she can contribute a lot in the organization. (B13)

Any professional education in accounting, mainly CMA from ICMAB, is needed to serve the accounting department properly. (B19)

The Institute of Cost and Management Accountants of Bangladesh (ICMAB) is the best institute for professional education and training on cost and management accounting in the country. (B18)

Between these two professional institutes, ICAB offers more courses in financial accounting, whereas ICMAB is specialized in cost and management accounting. “The CMAs

expressed their feeling for the need of the cost accounting department more than CAs and other professionals” (Mazumdar, 1994, p. 101).

A large number of consumers are in Bangladesh; therefore a good number of manufacturing organizations are growing day by day. Professional accountants are also required to serve all of the organizations in order to gain the maximum benefit. Therefore, these two institutes should enhance their institutional capacity to produce more professionals to serve all of the organizations, like other developed countries. Professional institutes in developed countries, like the United States and Canada, are qualifying more candidates while maintaining their standards to build more strength for their individual professional body.

Almost all interviewees realized the need and advantage of developing cost accounting education and training in Bangladesh. The descriptive questionnaire data supports the belief that education needs improvement, with only 32% respondents out of the total organizations surveyed stating that cost accounting in education facilities is adequate, while 55% stated as moderate agreement, and 14% considered the education inadequate. Therefore, the country must develop the professional cost and management accounting education for the sake of business enterprises. Cost accounting standards should be developed and circulated among the respective organizations.

The professional institutes need changes. All professional institutes should incorporate required modern courses to challenge the competitive business society. Professional institutes should inform entrepreneurs or management groups about the importance of use of cost accounting by seminars, symposiums, and other programs. As Bangladesh is an overpopulated country, an enormous number of students are joining the institutes every year. The institutes should put forth all-out efforts for developing higher numbers of qualified accountants by

maintaining the proper quality, so that they can meet the country's need in greater ways, as well as to serve the countries abroad with due professionalism.

**Training.** Theoretical education and practical training combined are needed in the workplace to perform the respective job perfectly. Theoretical education develops knowledge as required, and training helps to implement that learned knowledge in the workplace. Therefore, training in the workplace is mandatory for a cost accountant's grooming. Almost all interviewees felt that they should have job-based practical training mandatory to run the cost accounting department efficiently. Similar opinions from interviewees were as follows:

Training is a must. If the candidate has a practical training in cost and management accounting, that helps more in the accounting department, especially the cost accounting department. (B7)

Practical training is very much essential, and along with professional education in accounting, could bring additional support for the cost accounting department. (B10)

According to the interviewees, job-based training is essential, disregarding whether or not the candidates are well educated. It is tough to branch out the said businesses without having proper practical training and experience. "Lack of training facilities adversely affects the opening of new line of business" (Nawaz, 2009, p. 9). All entrepreneurs should be well trained in their respective sectors to diversify the businesses. "Training is an effective tool for entrepreneurship development in Bangladesh" (Habibullah, 1987, p. 51).

The education systems in Bangladesh are very theoretical and not similar to the practical-based systems in other developed countries like the United States, and Canada. All curriculums in every educational institution are mainly theory-based, rather than practical. "In the present curriculum teaching is mainly theory-based rather than practical" (Entrepreneurship Development, 2013, p. 5).

From a survey of the program descriptions of the major educational institutions in Bangladesh, there is no sufficient practical training assignment in their education system. There are no co-op (co-operative education) systems in the entire education cycle of the country. They only have a short internship at the end of graduation in the universities, and it is mainly assigned to prepare a short research paper. There are also no volunteer hours required in their curriculum. “It seems a matter of worry that the existing education system in the country is hardly suited to provide the required knowledge base that can meet the developmental needs of the country” (Ullah, 2010, p. 104). Therefore, management is having problems running their businesses efficiently due to shortage of apposite trained and skilled personnels. “The entrepreneurs are facing difficulties in running their business due to lack of trained and skilled manpower in every level of activity” (Islam, 2005, p. 94). Colleges and universities do not arrange any practical job-oriented training except internships and seminars under their course curriculum. Only the professional institutes, such as ICMAB and ICAB, offer CPD training for their members. Similarly, according to the questionnaire data, only 2% of respondents opined that training facilities were adequate, 47% mentioned they were moderate, and the remaining 51% commented as inadequate. Therefore, according to the descriptive questionnaire data, the training sector is very poorly done in the country, though the cost accounting education is considered satisfactory. Several interviewees offered the same opinions, as represented in the following:

In Bangladesh, practical experience or proper training in the cost accounting sector is not sufficient enough. Cost accounting education is satisfactory here in Bangladesh. We need to provide practical training in cost accounting to assist in their business decisions through systematic analysis of cost data properly in their respective organization. (B5)

The educational and the institute environments need modernization in attitude. The world economy is changing day by day. Therefore, the educational environment should be changed and updated according to the changing economic environment. All professional institutes should play

a vital role in this field. They should update their curriculum in a timely manner to provide effective and practical-oriented education, which the modern era needs. In order to offer up-to-date knowledge along with need-based training, all professional institutes should enrich teaching staff and arrange practical orientations, case studies, and seminars to make cost accountants more equipped to use cost accounting as per the organization's demand. Similarly, all colleges and universities should incorporate co-ops as course credit, volunteer hours for practical experience, and arrange internships for all new business graduates before offering their degree, including practical-based education and training as per the requirements of the country's need.

Entrepreneurs or management bodies can play a vital role to improve cost accounting education and training for the country by taking part to develop the business curriculums. All educational institutes in Bangladesh should update entrepreneurs or management of all organizations through seminars and symposiums about the necessity and the importance of use of cost accounting. This way, entrepreneurs or management will be interested in providing the required job-based training and education to their employees for the development of their organizations.

### **Cost Audit and Its Contribution**

Cost audit represents the verification of cost accounting records, such as the accuracy of cost accounts, cost statements, and cost reports, as well as examination of those records to ensure that the cost accounting principles, procedures, and objectives are maintained properly. Cost audit, therefore, can ensure that the proper cost accounting procedures are being maintained properly for the respective organizations. Cost audit is applicable only when cost accounts are duly maintained. Therefore, cost accounting will be implemented properly in any business organization if a cost audit is conducted in that area. According to the interview data, most

interviewees very clearly indicated that all entrepreneurs should be aware of the importance of cost audit, which was essential to increase the use of cost accounting, rather than to consider cost audit as cost burden for an organization. Similar opinions from interviewees were as follows:

Entrepreneurs are not in ethical agreement for cost audit. They are thinking it is a non-value-added job. It increases extra cost for the company. So the most important thing is to increase the awareness about the advantage of cost audit among entrepreneurs. Cost accounting practice will increase in organizations if we can duly implement cost audit, so business organizations will be healthy by using proper cost accounting procedures for cost audit. (B5)

Proper procedures of cost accounting use will definitely increase if we can ensure cost audit is mandatory for an organization. All professional institutes in accounting should make all users aware about the importance of use of cost accounting, as well cost audit. Especially, The Institute of Cost and Management Accountants of Bangladesh can make the management group aware, as well as entrepreneurs, about the importance of use of cost accounting in all business enterprises with the collaboration of government through seminars or symposiums. On the other hand, government can make cost audit mandatory for improving all industries' overall growth by using proper cost accounting. (B8)

Cost audit is also important for an organization to offer any product with a reasonable price by controlling cost and wastage with the proper use of cost accounting. "Cost audit can play a significant role in cost control and rationalization of prices" (Tariquzzaman et al., 2009, p. 28). Most entrepreneurs in Bangladesh do not have a clear concept of cost audit's role in business enterprises. Entrepreneurs need to know that cost audit helps to make the respective organization profitable by checking whether the cost accounting rules are maintained properly for controlling costs of production, reducing wastage, and allocating overhead expenses. Khan and Shipon (2013) pointed out that "cost audit is also useful for the purpose of cost control, cost reduction and proper utilization of scarce resources" (p. 2). A cost accounting manual should also be developed and circulated among business enterprises for implementing uniformity in cost accounting systems.



Usually a financial audit is applicable after preparing all required statements. In this case, to do the cost audit, the cost records and cost statements have to be in place as per the standards. As such, use of cost accounting will definitely increase, if the cost audit can be made mandatory by the management, entrepreneurs, or government of a country. Regarding making cost audit mandatory, similar opinions from interviewees were as follows:

In order to ensure systematic improvement of cost accounting practice in Bangladesh, it is important to have cost audit. Cost audit can help find the deviations of cost accounting practice from the standards, thereby suggesting improvements. Apart from this, tax audit, VAT audit, and management audit should also be developed to improve cost accounting practices in the country. (B1)

To increase the practice of cost accounting in the country, the government should make cost audit mandatory—especially in manufacturing and service-oriented organizations—like India and Pakistan. All related organizations will be bound to introduce cost accounting practice when cost auditing is mandatory. Management will be more interested when they can enjoy the benefits of using cost accounting. (B15)

Overall efficiency in every aspect should increase for an organization by making cost audit mandatory. “Mandatory cost audit helps in the detection of the standard of efficiency of the management” (Chatterjee & Mir, 2006, p. 36). For their own interest, management should hire competent cost accountants to reap the benefits of cost accounting for their organizations.

Cost audit can play a vital role in the growth of manufacturing, processing, and service industries that can also contribute to a country’s economic development. “The Cost and Management profession in India and Pakistan has already made a significant contribution in their countries’ economic development by successful implementation of cost audit and provision of highly technical professional services” (Sen, Jain, & Bala, 2002, p. 574). Similarly, Khan and Shipon (2013) pointed out that “cost audit is largely practicable in developing countries like Bangladesh, where a centralized data recording system is still inadequate, technological transparency is insufficient, there is a gap in proper value chain analysis and disclosure of cost is

not mandatory” (p. 2). Therefore, Bangladesh has introduced mandatory cost audit in some public and private sector manufacturing and processing industries. “Already, the government promulgated statutory notification making cost audit mandatory in the public sector sugar mills and public limited companies in fertilizer, textile, pharmaceutical, fuel, jute sectors and edible oil and ghee” (*The Daily Star*, 2004; Tariquzzaman et al., 2009, p. 27).

The provision of the statutory cost audit was first introduced in Bangladesh by the Companies Act, 1994. The Company Act, 1994 Section 220 contains provisions under which the government of Bangladesh may, by order, direct an audit of cost accounts be conducted of the company by a Cost and Management Accountant. The meaning of the term “cost and management accountant” has been specified in the Cost and Management Accounts ordinance, 1977 (L III of 1977). This cost audit (of the cost accounting books) is to be conducted every year and shall be in addition to the statutory audit of accounts conducted under section 210. Cost auditing function is administered and facilitated by the Cost Audit (Report) Rules, 1997, Order of the Government for Cost Audit, CMA Ordinance, 1977 (Ordinance No. LIII of 1977) and CMA Regulations, 1980 and subsequent amendments. (Tariquzzaman et al., 2009, p. 27)

According to the descriptive questionnaire data, 91% of the respondents out of the total organizations surveyed indicated that they felt the statutory requirement of cost audit was needed in the country. That indicated the majority of the interviewees’ views of making mandatory effective implementation of cost audit.

## **Recommendations**

This research has provided a clear picture of the level of use of cost accounting in business enterprises in Bangladesh. The research has also identified the need, as well as the areas of current problems and prospects, of use of cost accounting and its educational requirements of cost accountants to face the challenges of modern business needs. The findings may be useful in all types of business organizations to develop their cost accounting usage. For increased use of cost accounting in business enterprises of Bangladesh, and to gain a competitive edge in today’s

business environment, the following recommendations have been made based on the findings by this study:

1. The 1994 statutory requirement for cost accounting use should be enforced equally in the private and manufacturing sectors.
2. The 1994 mandate for cost audit should be enforced equally among all types of businesses. Enforcement could be expanded phase by phase.
3. Financial institutions should use cost accounting for evaluating the performance of the organization before approval of a financing and servicing period.
4. All professional institutes and business schools in the country should take necessary steps to include cost accounting as part of their curriculum.
5. The professional institutes should increase the members' Continuing Professional Development (CPD) program to update cost accountants on a continuing basis. Colleges and universities should also incorporate cost accounting-based training, co-ops in cost accounting departments, and internships in the program.
6. The Institute of Cost and Management Accountants of Bangladesh should enhance its institutional capacity to produce more CMAs and to regulate cost accountancy and audit to meet the organizational demand.
7. Practical need-based training on cost accounting should be arranged for the personnel that are using cost accounting.
8. More seminars and symposiums should be arranged to make entrepreneurs and management aware of the benefits of use of cost accounting.

## **Recommendations for Future Research**

This research answered four research questions, as well as raised several new questions, which generated recommendations for future research as follows:

- The country needs a sector-wide in-depth study to assess the need for uses of cost accounting and a mode for their application.
- The country must assess the weaknesses of the present regulatory and monitoring support to make it useful in the country's trade and industry.
- The country should ascertain the need for overall and sector-wide cost accounting standards and the need for the adaption of International Financial Reporting Standards and cost accounting standards in the context of changed business processes and local culture.
- There should be a comparative study among different categories of business enterprises to implement cost audit for increasing the use of cost accounting with proper procedures.

## **Conclusions**

Industries are being developed in Bangladesh because of the high demand of consumers due to rapidly increasing population. The country's active market and business environment can attract foreign investments through ensuring good governance, accountability, and transparency. Foreign investors count on transparency, efficiency, and wise decision making, all of which can be facilitated by strong cost accounting procedures. Users need to know the importance of the use of cost accounting to implement their requirements. Mandatory cost audit can drive all organizations to follow proper cost accounting systems accurately. Required qualified manpower should be developed by the institutions in the business to make effective use of cost accounting.

Improved education can make entrepreneurs and management aware of the need to use the best tools to meet the demands of business and to make the country a suitable business place.

Development of education includes incorporating more cost accounting courses in all business schools. Moreover, a job-based practical training can prepare an accountant for the required job.

The Institute of Cost and Management Accountants of Bangladesh (ICMAB) is and should continue to be the pioneer in this field.

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## Appendices

## Appendix A

## Demographic Questionnaire

1. Name of the organization: \_\_\_\_\_

2. Address (including telephone number): \_\_\_\_\_  
 \_\_\_\_\_

3. Year organization was established: \_\_\_\_\_

4. Type of ownership (check in the box):

i) Public Enterprise \_\_\_\_\_ ii) Public Limited Co. \_\_\_\_\_ iii) Multinational Co. \_\_\_\_\_ iv) Joint Venture Co. \_\_\_\_\_ v) Government Department \_\_\_\_\_ vi) Private Limited Co. \_\_\_\_\_  
 vii) Other (specify) \_\_\_\_\_

5. Nature of operation:

i). Manufacturing \_\_\_\_\_ ii) Trading \_\_\_\_\_ iii) Service \_\_\_\_\_ iv) Other (specify) \_\_\_\_\_

6. Size of the organization:

i) Sales Revenue (last year) \$ \_\_\_\_\_

ii) Total Fixed Assets (last year) \$ \_\_\_\_\_

iv) Total human resources divided as:

Officers: \_\_\_\_\_, Staffs: \_\_\_\_\_, Workers: \_\_\_\_\_

7. Name of the main product (s)/service (s) with annual capacity:

Product/service	Annual capacity

## Appendix B

## Questionnaire: Use of Cost Accounting (UCA)

1. (a). Who in your organization is taking care of accounting functions?  
 i). Accounting department \_\_\_\_ ii) Administrative department \_\_\_\_ iii) Marketing department \_\_\_\_ iv) Logistic department \_\_\_\_ v). Human Resources department \_\_\_\_ vi). Manager/chief executive \_\_\_\_ vii) Owner \_\_\_\_ viii) Others (specify) \_\_\_\_\_
2. If you have an accounting department, which functions are handled by the accounting department?  
 i) Preparation of financial statements \_\_\_\_ ii) Providing Management Information System (MIS) \_\_\_\_ iii) Preparation of Budget \_\_\_\_ iv) Product/Service Costing \_\_\_\_ v) Others (specify) \_\_\_\_\_
3. (a) Do you have separate cost accounting department/section?  
 Yes \_\_\_\_ No \_\_\_\_  
 (b). If yes, what purposes do you want the department to serve?  
 i). Determining Profit \_\_\_\_ ii) Providing Management Information System (MIS) \_\_\_\_ iii) For operational decision making \_\_\_\_ iv) Preparation of Budget \_\_\_\_ v). Product / Service costing \_\_\_\_ vi). Controlling cost \_\_\_\_ vii) Others (specify) \_\_\_\_\_
4. (a). Do you think the organization is benefiting from the Cost Accounting function?  
 Yes \_\_\_\_ No \_\_\_\_  
 (b). If yes, please outline some of the benefits to the organization.  
 i). Preparing budget \_\_\_\_ ii). Determining Profit \_\_\_\_ iii). Measuring efficiency \_\_\_\_ iv). Product/service pricing \_\_\_\_ v). For operational decision making \_\_\_\_ vi). Controlling costs \_\_\_\_ vii). Other (specify) \_\_\_\_\_
5. What kind of costing system (s)/method (s), do you have in your organization?  
 i). Process costing \_\_\_\_ ii). Job order costing \_\_\_\_ iii). Batch costing \_\_\_\_ iv). Other (specify) \_\_\_\_\_
6. (a). If you do not have a cost accounting department, do you feel the need for having it to your organization?  
 Yes \_\_\_\_ No \_\_\_\_  
 (b). Why do you not have the department yet?  
 i). Non-availability of qualified accountant \_\_\_\_ ii). Limited resources \_\_\_\_ iii). Non-appreciation of it's importance by top management \_\_\_\_ iv). Lack of organizational set-up (manpower, system, etc.) \_\_\_\_ v). Not applicable \_\_\_\_ vi) Others (specify) \_\_\_\_\_
7. (a). Do you have an integrated accounting system for both cost and financial accounting (use same books of record for both purposes)?  
 Yes \_\_\_\_ No \_\_\_\_  
 (b). If yes, please mention the benefits gained from the integrated system.  
 i). Duplication of record is avoided \_\_\_\_ ii). Ease of recording \_\_\_\_ iii). Economy of recording costs \_\_\_\_ iv). Other (specify) \_\_\_\_\_  
 (c). If no, do you reconcile the cost accounting records with financial accounting records?  
 Yes \_\_\_\_ No \_\_\_\_  
 (d). If yes, at what interval do you reconcile them?  
 i). Daily \_\_\_\_ ii). Weekly \_\_\_\_ iii). Monthly \_\_\_\_ iv). Quarterly \_\_\_\_



- v). Annually \_\_\_\_
8. (a). Do you think that the cost accounting records maintained by your organization are adequate for your purpose?  
Yes \_\_\_\_ No \_\_\_\_
- (b). If no, what additional records do you feel are required?  
\_\_\_\_\_
9. In your opinion, cost accounting can be used effectively in:  
i). Manufacturing organizations \_\_\_\_ ii). Service organizations \_\_\_\_ iii). Trading organizations \_\_\_\_ iv). Government organizations \_\_\_\_ v). All types of organizations \_\_\_\_
10. In your opinion, what factors are inhibiting cost accounting practices in the country?  
i). Lack of qualified manpower \_\_\_\_ ii). Absence of statutory requirement \_\_\_\_ iii). Lack of appreciation of its importance \_\_\_\_ iv). Other (specify) \_\_\_\_\_
11. (a). Do you think there should be a statutory requirement of Cost Audit in the country?  
Yes \_\_\_\_ No \_\_\_\_
- (b). If yes, what benefits you expect to gain from a Cost Audit?  
i). Serve as a basis for price fixation \_\_\_\_ ii). Help avail subsidy/ Tariff benefit \_\_\_\_ iii). Measuring Efficiency \_\_\_\_ iv). Income determination \_\_\_\_ v). Other (specify) \_\_\_\_\_
- (c). If no, can you give reasons in support of your response?  
\_\_\_\_\_  
\_\_\_\_\_
12. Please comment on the adequacy of the following for promoting cost accountancy in the country? (Please tick appropriate box)

Factors	Adequate	Moderate	Inadequate
Educational Facilities			
Training Facilities			
Practices			

## Appendix C

## Open-Ended Interview Questions

1. (a). Name of head of the department \_\_\_\_\_  
 (b). Designation \_\_\_\_\_  
 (c). Sex \_\_\_\_\_
2. Educational qualification (of head of accounting department):  
 i). Academic \_\_\_\_\_ ii). Professional \_\_\_\_\_  
 iii). Others (Specify) \_\_\_\_\_ iv). Training (Specify) \_\_\_\_\_
3. Do you think any additional qualification/training can help you or your employees more effectively to serve the department?  
 i). Academic \_\_\_\_\_ ii). Professional \_\_\_\_\_  
 iii). Others (Specify) \_\_\_\_\_ iv). Training (Specify) \_\_\_\_\_
4. Are you satisfied with the service that your cost accounting department is providing? Can you explain please?  
 \_\_\_\_\_  
 \_\_\_\_\_
5. Do you think that cost accounting can make significant contributions to the survival and growth of an organization?  
 \_\_\_\_\_  
 \_\_\_\_\_
6. Can you name some of the institutions that offer cost accounting training and education facilities in the country?  
 i). \_\_\_\_\_  
 ii). \_\_\_\_\_
7. In your opinion, what education/training is needed for an accountant to perform cost accounting effectively in your organization?  
 \_\_\_\_\_  
 \_\_\_\_\_
8. Do you have any suggestions to improve cost accounting education/training in the country?  
 \_\_\_\_\_  
 \_\_\_\_\_
9. Do you have any suggestions for improvement of cost accounting practices in the country?  
 \_\_\_\_\_  
 \_\_\_\_\_
10. Do you have any other comment on use of cost accounting practices in the country?  
 \_\_\_\_\_  
 \_\_\_\_\_

## Appendix D

## Demographic Characteristics Analysis—Functional Classifications

Table D1

*Demographic Characteristics Analysis—Functional Classifications*

SL	Function	Quantity	%
1	Textile	5	5
2	Pharmaceuticals	6	6
3	Jute Goods	4	4
4	Garments	9	9
5	Cement	2	2
6	Chemicals	4	4
7	Paper & Paper Products	6	6
8	Plastics Goods	1	1
9	Gas & Petroleum	2	2
10	Lather Products	1	1
11	Heavy Engineering	11	11
12	Light Engineering	4	4
13	Food & Allied Products	11	11
14	Financial Institute	11	11
15	Educational Institute	5	5
16	Real Estate	4	4
17	Timber & Wooden Products	1	1
18	Transportation	4	4
19	Insurance	2	2
20	Shipping	4	4
21	Hotel & Tourism	2	2
22	Hospital & Clinic	1	1
	Total	100	

## Appendix E

## Description of the Interviewees

Table E1

*Description of the Interviewees*

Interviewee	Designation	Sex	Academic Education	Professional Education	Others (Diploma/ Courses)	Training
B1	Chairman	M	M.COM.	CMA		CPD
B2	Chief Accountant	M	B.A.	CMA	SAS	CPD
B3	Comptroller	M	M.COM.	CMA		CPD
B4	Cost & Mgt. Accountant	M	M.COM.	CMA	MNIA	CPD
B5	Manager, (F & A)	M	M.COM.	CMA		CPD
B6	Director, (F&A)	M	M.COM.	CMA	Cost Audit	CPD
B7	Chief Accountant	M	M.B.A. (Finance)	CMA	AMIAT	CPD
B8	Finance Manager	F	M. COM Accounting	CMA, CA		CPD
B9	Executive Vice President	M	M.B.A.	CMA	CMC, MCS	CPD
B10	Cost Controller	M	M.COM., LLB	CMA		CPD
B11	Executive Director	M	M.COM., M.A. (Econ)	CMA	Workshop on CMA	CPD
B12	Cost Consultant	M	M.COM.	CMA	FCEA, FAAI FCP	CPD
B13	Asst. Manager (Act & Admn.)	M	M.COM.	CMA		CPD
B14	Chief Accountant	M	M.COM.	CMA		CPD
B15	Principal Officer	M	M.COM.	CMA	DAIBB, Diploma-Banking	CPD
B16	Deputy GM (Accounts)	M	M.COM. (Accounts)	CA (Inter-mediate)		Worksh op Acct.

Table E1 *Continued**Description of the Interviewees*

Interviewee	Designation	Sex	Academic Education	Professional Education	Others (Diploma/Courses)	Training
B17	Deputy GM (Accounts)	M	B.Sc.	Business courses	Personal Management	
B18	Senior Manager (Finance)	M	M.COM.	CMA		CPD
B19	Group Finance Controller	M	M.COM.	CMA		CPD
B20	Chief Accountant	M	M.COM.	CA	Accounting & Mgt.	

## Appendix F

## Application for Institutional Review Board Approval Form

## Appendix A

APPLICATION FOR INSTITUTIONAL REVIEW BOARD APPROVAL FORM  
University of the Incarnate Word

## (PLEASE TYPE INFORMATION)

1. Principal Investigator (type name): S. M. Ebadul Islam
2. Co-Investigator; Faculty Supervisor; Thesis or Dissertation Chair: Dr. Richard Gray
3. Division/Discipline: International Education and Entrepreneurship
4. Research Category: a. ☒ Exempt b. ☐ Expedited Review c. ☐ Full Board Review
5. Purpose of Study: The purpose of this study is to identify the present level of use of cost accounting by nature and type of organizations in Bangladesh. The research will identify the need as well as the areas of current problems and prospects of use of cost accounting. It will also determine the level and nature of educational skills required in order to effectively apply cost accounting.

6. Number of Subjects: 150 + 20 Controls: \_\_\_\_\_

7. Does this research involve any of the following:

	YES	NO		YES	NO
Inmates of penal institutions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fetus in utero	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Institutionalized mentally retarded	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Viable fetus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Institutionalized mentally disabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Nonviable fetus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Committed patients	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dead fetus	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mentally retarded outpatient	<input type="checkbox"/>	<input checked="" type="checkbox"/>	In vitro fertilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mentally disabled outpatient	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Minors (under 18)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pregnant women	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

For each "Yes", state what precautions you will use to obtain informed consent. N/A

8. Duration of study: 1 year

9. How is information obtained? (Include instruments used): The research methodology will be descriptive qualitative method. The data collection in this study will consist of two parts. First, a descriptive questionnaire will be utilized to investigate the level of cost accounting use in Bangladesh and its possible obstacles. Second, the qualitative data collection will include opened-ended interviews to identify the prospects of use of cost accounting and its required education in order to meet cost accounting needs in business enterprises.

10. Confidentiality – (Are identifiers used for subjects?: ☒ Yes ☐ No)

11. Benefit of research: The results of this study will benefit businesses, business educators, policy makers, program planners and curriculum specialists in the following ways; (a) assist in planning instructional materials, courses and experiences that are aligned with current and future business environments and practices in Bangladesh; (b) provide a basis for establishing and/or improving the necessary partnerships between schools and local business communities in Bangladesh; (c) assist other individuals within the professional field who are, or will be, engaging in similar research by providing baseline data.

12. Possible risk to subjects: None

\*\*\*IF CHANGE IN RESEARCH OCCURS THE BOARD MUST BE NOTIFIED BEFORE RESEARCH IS CONTINUED.\*\*\*

Principal Investigator signature \_\_\_\_\_

Date 01-28-05

IRB Approval signature \_\_\_\_\_

Date 01-28-2005

Application # \_\_\_\_\_

## Appendix G

## Consent Form

## Consent Form

Project Title: Use of Cost Accounting in Business Enterprises in Bangladesh  
And Educational Requirements

Principal Investigator: S. M. Ebadul Islam, Doctoral Students of International Education  
And Entrepreneurship, University of the Incarnate Word, San  
Antonio, TX 78209

Phone: (041) 725116

E- mail: [ebadul@yahoo.com](mailto:ebadul@yahoo.com)

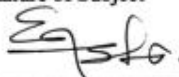
Thank you for volunteering to participate in the interview regarding the use of cost accounting in business enterprises in Bangladesh and educational requirements. It will take approximately half an hour for you to interview. Your signature of this consent form shows that you have been informed about the conditions and safeguards of this project, and agree to participate in the study.

1. Your participation is voluntary. You are free to choose not to participate or to withdraw from participation at any time.
2. There is no risk to individuals who participate in this research, and complete confidentiality is ensured. Your name or the name of your company will not be used. Instead, you will be given a code number in order to guarantee your anonymity. The typed transcript of the interview will show this code number rather than your name. Your comments will be entered on a computer, and any identifying information will be changed for written reports. Only the project investigator and his research assistants will have access to the transcript.
3. Any questions concerning your participation in this study may be addressed to the researcher at the phone number or e-mail listed at the top of this page.
4. The University of the Incarnate Word committee that reviews research on human subjects, the Institutional Review Board, will answer any questions about your right as a research subject (1- 210- 805-5840 – Dean of Graduate Studies and Research).

You have my deep appreciation. I believe that the results of this study will benefit business educators, policy makers, program planners and curriculum specialists in planning instructional materials, courses and experiences that are aligned with current and future business environments and practices in Bangladesh as well as help to improve the necessary partnerships between schools and local business communities by investigating the use of cost accounting and its educational requirements in Bangladesh.

I have read the information provided and agree to participate in this study.

Signature of Subject



Signature of Investigator

Date

01-28-05

Date

University of the Incarnate Word  
IRB Approved  
Application No. 05-01-003