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All rights reserved. No part of this publication may be reproduced, duplicated or copied by any means without the prior consent of the holder of the copyright, requests for which should be addressed to the publisher.
As human beings, we all come to this planet for a limited time period with some specific assignment from Allah. So, we have to be cautious in spending our time meaningfully. We can save our money for future use but can’t save our time for future use. So we have to use our time more meticulously, more effectively in a more productive way to get optimum result by following rational behavior process. This productivity may be in your personal development or it may be in organizational development. If you develop yourself as an active and reliable person the organization you and your team members will also reap the benefit of it.

Productivity is the key factor in achieving not only in personal excellence but also in organizational excellence which leads to quality life of people’s, customers’ satisfaction and sustainable growth of the organization and yourself. Strategic management in productivity improvement is an ongoing process but not a start-stop event. New innovation, new development requires response to changes. It needs to adopt new strategies according to new challenges and challenges to be faced in future. Every manager is a strategy member and is responsible for its implementation. Productivity improvement is one of the key factors for the success of an organization.

Productivity is a measure of application of production knowledge. Better application of knowledge and its application is very important. It is, therefore, a measure of performance of how efficiently knowledge is applied. A single productivity number for a day, week or month is meaningless. However, managers become more interested when a string of productivity numbers are plotted to show trends of productivity ups and down.

The main aim and objective of productivity study and analysis is ultimately its improvement from existing level. Productivity is a hot topic in an organization. It is of course a sure path to organizational survival and sustainable growth. Higher productivity is achieved only by taking continued remedial action in several areas of the budgetary plan using an integrated approach.

First of all it is necessary to identify what are the corporate vision, Mission, goals and values, what would it like to achieve, how closely integrated are the goals of its members. To increase productivity, executives must concentrate their efforts on culture, goals and values, rites and rituals and environmental elements of culture.

Increasing productivity in the technical work area always need innovation. Through constant evaluation and redesign of the key work activities, the organization will be capable to produce quality goods and services which will be effectively distributed to the customers. There is an ongoing need to adopt the fit between organization and customer through a continual improvement and research process.

There are certain characteristics of organization structure. These characteristic may need to be changed to increase productivity. Very often organization structures and hierarchy become the barrier to productivity improvement.

Productivity improvement is highly correlated with people and their relationship. An organization is mainly composed of people, organizational characteristic and their inter relationships. Hence, individual and group relationship should be harmonious for attaining higher productivity.

Lastly effective planning, organizing, developing and controlling are the main management function to achieve the target objectives.

Ruhul Ameen FCMA
Dear Members,
Assalamualaikum.

Firstly, I would like to convey my heartiest greetings and congratulations to my countryman on the occasion of 50th Victory Day of Bangladesh. Bangladesh was born as an independent country on December 16, 1971 under the leadership of Father of the Nation Bangabandhu Sheikh Mujibur Rahman at the cost of supreme sacrifice of three million people and the honour of nearly half a million women.

We developed a strategic plan to improve our institute in a new height and reformation of existing education and examination system based on the market demand is the part of our strategic plan. We have the plan to design a unique course curriculum of ICMAB for branding our CMA profession at home and abroad. As per our commitment, we have updated a unique course curriculum in order to cope up with global education system. We have divided the course curriculum into seven interrelated pillars. We have given special emphasize on cost and management accounting, financial accounting and corporate reporting, information technology and business analytics, economics and finance, management and business strategy, audit and assurance, governance, laws and taxation issues. We have incorporated the articleship as a milestone in the course curriculum instead of internship. We have included case study as a separate course for the first time in course curriculum of ICMAB. Moreover, we have included contemporary courses, topics and timely driven emerging issues in our course curriculum. We interacted and discussed with our members and students about new course curriculum. We expect that the new course curriculum of ICMAB will enhance the essential and practical knowledge, IT skill, technical skill, ethical judgment, solving the real world problem, critical decision marking, and
professionalism of our students and develop the future business leaders to compete in the national as well international market.

We have also taken the initiative to develop the Learning Management System (LMS) to facilitate the various activities for the students and members of the institute. This learning management system will change the learning management environment and all the students and members will be benefited using the new system. We are using asset-management effectively for the development of the institute. We have taken the initiative of vertical extension of Dhaka, and Khulna ICMA office building as well as extension and renovation of Chittagong ICMA office building. We are going to launch study center in the central areas of different cities. We are working on finalization of the service rules and cost accounting standards. We are going to recruit skilled human resources including the directors for smooth operational activities of the institute. We will organize the ‘Best Corporate Award’ very soon. We have the plan to organize convocation for the qualified CMAs.

We have started the Skill Development Program (SDP) to improve the soft skill of our students for the first time in the history of ICMAB. We have launched CMA directory mobile app. We are going to recruit the permanent faculty members to ensure quality education for our students. We are trying to collaborate with other professional bodies. Moreover, we regularly participate and discuss with professionals, businessman, industrialists, top officials of different bodies to develop the image our profession and maintain the professional relationship. In the meantime, we signed a Memorandum of Understanding (MoU) with Dhaka Chamber of Commerce and Industry (DCCI) about mutual professional interest. We will provide training around 4,500 officials of DCCI under the MoU agreement. We are going to brand our CMA profession extensively by providing training to the VAT officials of National Board of Revenue (NBR).

We are consistently organizing series of Continuous Professional Development (CPD) and webinar programs using the online and physical platforms to enhance the knowledge of our members and students. In the meantime, we successfully organized several programs such as ‘How Artificial Intelligence (AI) and Block Chain will Transform Accounting and Auditing’, ‘Treatment of various items of cost in light of the COVID-19. We emphasized particularly on ensuring Cost Audit Certification for all listed companies in CPD and webinar programs. I added that CMA professionals can create a great impact by putting their expertise for ensuring clarity in various economic aspects. I requested the honorable guests to create more scope for the CMA professionals in relevant fields so that they can give their effort for the development of this country. I convey my sincere gratitude to the all the resource persons, and members for their active participation and cooperation in the national and international webinar programs.

I am seeking your full hearted support, cooperation, guidance and blessing to face the challenges due to COVID 19 and I firmly believe that with your support and blessing we will implement all of our strategic plan and uphold the image of the CMA profession in a new height in the national and international arena.

“Let us keep physical distance, wash our hands, Think of others and play our part all together”

Md. Jasim Uddin Akond FCMA
Forensic Accounting and Fraud Investigation: A Conceptual Summary

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Abstract
The rampant increase of corporate fraud demands accountants and auditors to take utmost care of the company financials. Particularly, it requires an intense investigation of the accounting records to find out the underlying reasons for the fraud and take necessary legal action. On this backdrop, we see the emergence of forensic accounting as a sub-discipline within accounting and legal studies. This paper provides a conceptual understanding of forensic accounting and fraud investigation in the accounting discipline. Drawing evidence from literary, the paper briefly illustrates few critical issues: first, it defines forensic accounting and contrasts it with regular auditing function; second, it describes the role of forensic accountants and the skills needed for forensic accountants; third, it shows different categories of fraud and how forensic accounting is engaged with a fraud investigation; finally, it reports on the forensic accounting education with examples from different countries. The paper has important implications for accounting professionals, auditors, fraud investigators, and national policymakers. The paper is limited to the extent that it does not provide empirical evidence from an institutional context. Nevertheless, the paper could be used as an important guide to carry out empirical work in the context of Bangladesh and its corporations.

Keywords: Forensic Accounting, Fraud Investigation, Corporate Fraud, Forensic Accountants.
1.0 Introduction

In 2002, the world had observed the collapse of US energy sector giant Enron Corporation when it was at the peak of business with the reputation of ‘America’s most innovative companies’ for six consecutive years by Fortune. In 2016, the world had observed a series of paper leak, known as Panama Papers, which revealed that how the worlds’ wealthy investors avoided tax by establishing shell companies in remote tax havens. In either case, the beneficiary companies or parties used an accounting device to fulfill their ill motives. So, the question remains, whether the regular accounting and auditing fail to recognize such unethical and illegal activities? What alternatives could we foresee then to maintain an ethical business practice?

Fraud and scandals are not something new to the world. However, over the last two decades, issues such as corporate fraud, white-collar crime, creative accounting and earnings management have become burning questions among the public sector policymakers, business professionals, media and academicians. Notorious corporate scandals such as Enron, WorldCom, Tyco and Satyam came under public review, and people started taking more interest in corporate affairs. Moreover, public sector corruption is a worldwide phenomenon and is increasing over time. Both the corporate world and the policymakers started giving more emphasis on the issues such as corporate governance, auditing, corruption control and stakeholder interest. Because of these corporate scandals and stakeholder awareness, a relatively new branch of accounting called forensic accounting has emerged. This sub-discipline of accounting has already proven its importance in the eyes of the stakeholders. These days, forensic accounting is being taught in several universities and colleges with the help of its separate and unique textbooks. Accounting researchers are also getting interested in this topic and are continuously writing and publishing research articles in renowned journals. This paper attempts to provide a conceptual guide to the understanding of forensic accounting and fraud investigation.

The paper is structured as follows: first, it defines forensic accounting and contrasts it with regular auditing function; second, it describes the role of forensic accountants and the skills needed for forensic accountants; third, it shows different categories of fraud and how forensic accounting is engaged with a fraud investigation; finally, it reports on the forensic accounting education with examples from different countries.

2.0 Forensic Accounting- Meaning and Differences with Auditing

The ‘forensic accounting’ term has been evolved over time in meaning and multitudes (Botes and Saadeh, 2018). Researchers have defined the term from a wide range of perspectives. Until the beginning of 1990s, it had been narrowly defined as the producer of legal evidence to be used in the courtroom (ibid). Conversely, in recent decades, forensic accounting has been considered to play a greater role in investigating corporate scandals and white-collar crimes (see, Botes and Saadeh, 2018; McMullen and Sanchez, 2010). Some of those key definitions are presented here:

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Definition of Forensic Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Singleton and Singleton</td>
<td>The term forensic accounting refers to the comprehensive view of fraud investigation. It includes preventing frauds and analyzing antifraud controls. Forensic accounting would include the audit of accounting records in search of evidence of fraud: a fraud audit. (p. 12)</td>
</tr>
<tr>
<td>2012</td>
<td>Hopwood, Leiner and Young</td>
<td>Forensic accounting is the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by courts of law. (p. 3)</td>
</tr>
<tr>
<td>2014</td>
<td>Chattopadhyay</td>
<td>… forensic accounting refers to the application of accounting principles, theories and discipline to facts and hypotheses at issue in a legal context, embracing litigation or any other form of dispute resolution such as arbitration. (p. 22)</td>
</tr>
</tbody>
</table>
Huber and DiGabriele [... a multidisciplinary field that encompasses both a profession and an industry, where civil or criminal economic and financial claims, whether business or personal, are contested within established political structures, recognized and accepted social parameters, and well-defined legal jurisdictions, and informed by the theories, methods, and procedures from the fields of law, auditing, accounting, finance, economics, psychology, sociology, and criminology.

Rufus, Miller and Hahn … the use of accounting theories, principles, or analyses in a legal action, often through expert witness testimony. (p. 17)

From the above definitions, it can be understood that forensic accounting is mainly related to the investigation of frauds and financial irregularities and legal procedures concerning frauds. The term forensic ‘underscores the application of scientific methods and techniques to the investigation of crime, as much as it is concerned with courts of law’ (Chattopadhyay, 2014, p. 22). Moreover, as a multidisciplinary field, forensic accounting substantially interacts with other disciplines (DiGabriele and Huber, 2015).

Although forensic accounting requires an integration of accounting, auditing and investigative skills, it differs from the traditional financial audit. Financial audits are statutory and recurring in nature. That means public limited companies are required to perform the financial audit in every financial year (or at a regular interval). However, forensic accounting does not have this recurring nature. Forensic accountants are solicited whenever people think that a fraud has taken place in the organization. Forensic accountants investigate the fraud and deal with the case in the court of law. The differences between the statutory audit and forensic accounting are presented here.

<table>
<thead>
<tr>
<th>Table-2: Statutory Audit vs. Forensic Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Nature</strong></td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td><strong>Beneficiary</strong></td>
</tr>
</tbody>
</table>

3.0 Forensic Accountants- Skills and Attributes

Big accounting firms and professional institutes (AICPA, for example) advocate for the application of training and skills of chartered accountants to investigations, disputes and other reviews (Botes and Saadeh, 2018). This simplistic view considers only chartered accountants have the skills and knowledge required to work as forensic accountants. However, forensic accounting has multidisciplinary perspectives, and the term ‘forensic accountants’ can be applied to anyone who is engaged in a fraud investigation. In terms of investigative services, the forensic accountants may perform three significant activities: fraud detection, fraud examination and fraud deterrence (Rufus et al., 2015). Fraud detection is related to the discovery of fraud. When there is an indication/
suspicion of fraud, forensic accountants can be hired to examine the depth and nature of fraud. A proactive firm can undertake fraud deterrence strategy to prevent fraud. Potential preventive strategies include pre-employment screening, employee training and monitoring, inculcating ethical organizational culture etc. Other than these, forensic accountants can get involved in financial viability assessment such as analysis of financial and management sustainability and determining the reasonableness of insurance claims (ibid). According to Pedneault, Rudewicz, Sheetz, and Silverstone (2012), forensic accountants can also be employed in case of dealing with bankruptcy, insolvency and reorganization, computer forensic analysis, economic damage calculations and business valuation. Moreover, forensic accountants can provide litigation services (Rufus et al., 2015) such as expert witness services (can express opinions as expert witnesses) and consulting services (such as assisting the attorneys).

In general, forensic accounting service demands a wide range of skills from the part of the service providers. An individual may not possess all the qualities and skills that are needed to perform a particular investigation. A team consisting of people from multiple disciplines can be employed to carry out a particular forensic accounting engagement. Forensic accountants should have a skeptical mind and a keen interest in problem-solving.

According to Rufus et al. (2015), a forensic accountant should have the ability of critical thinking, reasoning and communicating. By critical thinking, the authors focused on the ability of being rational, sceptical, reasonable, well-informed and open-minded. Reasoning involves the capability of drawing inferences and conclusions. Lastly, the forensic accountants have to be sound in both written and oral communication. Their reports have to be clear, concise, comprehensive, and grammatically correct. Moreover, in many cases, forensic accountants have to defend their report in court. That is why they must have good oral communication skill.

Tiwari and Debnath (2017) mentions that forensic accountants have to be competent in six areas. First, they must have good accounting skill. They must be aware of the accounting standards and the practices of creative accounting. Also, knowledge about financial analysis (especially, financial ratios) is essential. Second, they should have good knowledge of the tools and techniques of auditing. Third, knowledge of statistics is important. It is expected that the forensic accountants should possess the knowledge of statistical methods, model fitting and data mining. Fourth, in the era of the fourth industrial revolution, forensic accountants have to be aware of the information technology. Cybercrimes are becoming common phenomena these days. The knowledge of information technology can be helpful in investigating these crimes. Fifth, they should have human behavior skills as forensic accounting involves the investigation of frauds and corruption. Interpersonal skills can be helpful in this kind of investigations. Sixth, the knowledge of legal matters is also critical as forensic accountants are expected to deal with legal matters in the court.

According to Singleton and Singleton (2010), the required knowledge, skills and abilities of forensic accountants include:

i. Capability of identifying frauds with the help of minimum information by applying effective procedures.

ii. Ability of interviewing several parties while seeking evidence and information.

iii. Ability of healthy skepticism (tendency to question).

iv. Knowledge of collecting useful evidence and presenting them in the court.

v. Ability of presenting the findings to the stakeholders/interested parties.

vi. Knowledge of the investigative techniques.

vii. Appropriate investigative skills required for a particular investigation.

viii. Having investigative mentality that helps to go beyond accounting and auditing standards.

ix. Capability of identification of financial issues in relation to any ‘complaint, allegation, rumor, inquiry, or statement of claim’ (Singleton and Singleton, 2015, p. 25).

x. Ability to interpret financial information to test the business reality.

Drawing from a stakeholder perspective, Kramer, Seda and Bobashev (2016) has documented several skills of forensic accountants from literary sources:
Table-3: Skills of Forensic Accountants

<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>Required Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meservy et al. (2006)</td>
<td>Interrogation and interviewing skills, evidence sources, fraudulent financial</td>
</tr>
<tr>
<td></td>
<td>statement schemes, criminology, computer/internet fraud techniques or skills and</td>
</tr>
<tr>
<td></td>
<td>people/human relations skills</td>
</tr>
<tr>
<td>DiGabriele (2008)</td>
<td>Critical thinking, unstructured problem-solving, investigative flexibility,</td>
</tr>
<tr>
<td></td>
<td>analytical proficiency, oral and written communication, deductive analysis,</td>
</tr>
<tr>
<td></td>
<td>legal knowledge and the ability to maintain composure.</td>
</tr>
<tr>
<td>Davis et al. (2010)</td>
<td>Analytical skills, communication skills, the ability to simplify a complex issue</td>
</tr>
<tr>
<td></td>
<td>and the ability to present opinions in a legal setting.</td>
</tr>
<tr>
<td>McMullen and Sanchez (2010)</td>
<td>Analytical skills, followed by expertise in basic accounting, problem-solving</td>
</tr>
<tr>
<td></td>
<td>and data analysis.</td>
</tr>
</tbody>
</table>

Source: Developed from Kramer, Seda and Bobashev (2016)

Therefore, from the above discussion, it is conceivable that in order to be a forensic accountant, a person should not only possess the technical skills of accounting/auditing/computing/statistics but also have a good grasp of analytical, communication and social skills. In this advanced information age, they should have good command over the use of information system packages in fraud investigation.

4.0 Fraud- Concept and Typology

Fraud can be found in almost every culture and every country in the world. It exists both in the private and public sectors. Every kind of organization, regardless of its type, size or industry, has to deal with fraud. The word fraud has a negative connotation. Usually, people react negatively to the news of any fraud. In general, fraud results in financial loss. Rufus et al. (2015, p. 158) defined fraud as ‘the unlawful taking of another’s property by deception’. Skalak, Alas and Sellitto (2006), has identified four elements for any act of fraud: first, a false representation (false statement or omission) that is material in nature; second, the suspect knowing that the representation is not accurate; third, the person/party (the victim) who received the representation relied on it; and the representation and the reliance on it resulting in financial loss, damage or injury for the victim. Cressey’s (1953) fraud triangle has been one of the influential theoretical frameworks to understand fraud. It has identified three necessary conditions for fraud to occur: pressure (a non-shareable problem), opportunity (lack of internal controls), and rationalization (the ability to justify one’s actions). In 2004, Wolfe and Hermanson introduced the “Fraud Diamond Model” where they added one additional condition: ‘the fraudster’s capabilities’ which assert that the perpetrator must have the capability to commit an act of fraud with confidence. More recently, Kranacher, Riley and Wells (2010) have introduced MICE framework that considers Money, Ideology, Coercion, and Ego/Entitlement as motivations to commit fraud.

Although fraud varies in scope, context and fraudster’s position, there is some commonality in the purpose of committing fraud. In this regard, Skalak et al. (2006) highlighted two broad categories of fraud: (1) employee fraud/misappropriation of assets and (2) financial statement fraud. Employee frauds include ‘the theft of cash or inventory, skimming revenues, payroll fraud, and embezzlement’ (Skalak et al., 2006, p. 5). Asset misappropriation (the most common kind of fraud) includes ‘billing schemes, payroll schemes, expense reimbursement schemes, check tampering, and cash register disbursement schemes’ (ibid). Financial statement fraud includes intentional misstatement/omission in the financial statements. This kind of fraud is committed with an intention to deceive the stakeholders (mainly the investors). Rezaee (2005) also investigated the underlying reasons of financial statement fraud. He suggested a framework of ‘CRIME’, which refers “C” for Cooking the books, “R” for Recipes, “I” for Incentives, “M” for Monitoring or lack of it, and “E” for End Results. In general, corporate employees and management are responsible for this kind of fraud. This kind of fraud is a serious threat as it damages corporate reputation (Skalak et al., 2006) and erodes investors’ confidence in financial information (Rezaee, 2005).

The increasing accounting scandals have shown that people with high social status and organizational positions
are involved in committing fraud. This type of fraud is known as white-collar crime, and it is now evident in almost all economies in the world. Edwin Sutherland coined the term ‘white-collar crime’ to refer fraud committed by a person of respectability and high social status in the course of his occupation’ (cited in Rufus et al., 2015, p. 160). White-collar crime has six features (ibid): first, Deceit: misrepresentation or concealment of truth by the offender; second, Intent: the fraud is intentional, means, it did not happen by accident; third, Breach of trust: because of the respectable position of the offender, there exists a trust factor between the offender and the stakeholders; fourth, Losses: the stakeholders have to bear the losses because of the actions of the offender who is securing a responsible position; fifth, Concealment: the crime remains concealed; and sixth Outward respectability: because of the respectable position of the offender, it becomes tough to challenge the crime. Forensic accountants can play an important role in dealing with white-collar crimes as Chattopadhyay (2014, p. 22) emphasizes: “In the ultimate analysis, forensic accounting and forensic audit are concerned with finding the truth to help punish the guilty and protect the innocent”.

5.0 Forensic Accounting Engagement and Fraud Investigation

Forensic accountants investigate frauds. Chattopadhyay (2014, p. 22) mentions: “Forensic accounting encompasses all accounting and financial analyses performed for assisting counsel in connection with investigation, assessment and proof of issues in a dispute resolution proceeding. All these involve skillful gathering and reconstructing financial evidence and solving problems within the context of the rules of evidence and the legal system”. So, finding relevant evidence and scientific inference is the most critical task that the forensic accountants perform.

Academics documented various approaches to forensic accounting engagement and fraud investigation. For example, both Rufus et al. (2015) and Hopwood et al. (2012) identified four phases in the forensic accounting and fraud investigation process. Analyzing their models, we find a total of five steps in a typical fraud investigation process. These are briefly discussed here:

<table>
<thead>
<tr>
<th>Table-4: Forensic Accounting Engagement and Fraud Investigation Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Engagement</strong></td>
</tr>
<tr>
<td>Once a fraud incident takes place, forensic accountants are employed to conduct the investigation. At this phase, the forensic accountant agrees with the client on the scope of the investigation.</td>
</tr>
<tr>
<td><strong>Discovery of Evidence</strong></td>
</tr>
<tr>
<td>At this phase, the actual investigation takes place, and the necessary pieces of evidence are collected from all possible sources. As such, the forensic accountants physically visits the place, observe the operations, interview people and collect archival documents.</td>
</tr>
<tr>
<td><strong>Analyzing the Evidence</strong></td>
</tr>
<tr>
<td>Forensic accountants exhibit their technical and analytical skills at this phase. To see the broader picture, they not only corroborate one source of evidence with others, but they also conduct statistical analysis here.</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
</tr>
<tr>
<td>Once the analysis is completed, the forensic accountants need to communicate the findings through a formal report.</td>
</tr>
<tr>
<td><strong>The Action</strong></td>
</tr>
<tr>
<td>This is the final step of the entire investigation process. Once forensic accountants produce their report, the victim (individual/company) may initiate legal proceedings against the fraudster. In insured cases, the victim may recover the loss caused by the incident from the insurance company. Also, the forensic accountants and their report can be used as expert testimony.</td>
</tr>
</tbody>
</table>

6.0 Forensic Accounting Education

As discussed in section 3, forensic accountants need to have conceptual, technical, analytical, communication and social skills. Understandably, one cannot acquire
these skills on his/her own. They need to take part in forensic accounting education and training. The importance of forensic accounting education has been acknowledged by the academics, practitioners, professional bodies, regulatory agencies, users and other stakeholders (Kramer et al., 2016, Seda and Kramer, 2008). For example, Buckhoff and Schrader (2000, p.135) suggests “adding a forensic accounting course to the accounting curriculum can greatly benefit the three major stakeholders in accounting education—academic institutions, students, and employers of accounting graduates.” There are a handful number of research that provides evidence from various contexts and investigates the existing forensic accounting curriculum at both university and professional institute level. Drawing from Seda and Kramer (2014), we have calculated the alternative modes of forensic accounting higher education in different countries. We present the results here:

**Table-5: A Brief Scenario of Forensic Accounting Higher Education**

<table>
<thead>
<tr>
<th>Mode of Higher Education</th>
<th>USA</th>
<th>Canada</th>
<th>UK</th>
<th>Australia</th>
<th>China</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate Forensic Accounting Courses</td>
<td>422</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>447</td>
</tr>
<tr>
<td></td>
<td>(94.41%)</td>
<td>(2.01%)</td>
<td>(0.67%)</td>
<td>(0.89%)</td>
<td>(0.45%)</td>
<td>(1.57)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Forensic Accounting Certificate and Degree Programs</td>
<td>58</td>
<td>6</td>
<td>11</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>(64.44%)</td>
<td>(6.67%)</td>
<td>(12.22%)</td>
<td>(7.78%)</td>
<td>(1.11%)</td>
<td>(7.78%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Forensic Accounting Concentration, Minor, Track or Specialization</td>
<td>97</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>3</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>(91.51%)</td>
<td>(2.83%)</td>
<td>(1.89%)</td>
<td>(0.94%)</td>
<td></td>
<td>(2.83%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

The table shows that the USA has complete domination in forensic accounting higher education in the world. Apart from the USA, higher education in forensic accounting is mostly available in English speaking countries. Therefore, there is an apparent dearth of forensic accounting education in other parts of the world. Notably, as a leading world economy, China is falling behind of Anglo-Saxon countries in this regard. Just like forensic accounting higher education, USA also leads in accrediting professional certification for forensic accountants. Since 2008, AICPA has designed two new credentials for CPAs and financial professionals specializing in forensic accounting and business valuation: Certified in Financial Forensic (CFF) and Accredited in Business Valuation (ABV). Various associations have also been established to facilitate the forensic accountants’ professional matters. Huber (2011) terms these association as forensic accounting corporations. He reports that there are four for-profit forensic accounting corporations [National Association of Certified Valuation Analysts (NACVA), Association of Certified Fraud Examiners (ACFE), Forensic CPA Society Inc. (FCPAS), and American College of Forensic Examiners International (ACFEI)] and one non-for-profit association: Association of Certified Fraud Specialists (ACFS).

### 7.0 Conclusion

This paper presents a general overview of a recent branch or accounting – forensic accounting. Over the past few decades, because of the several notorious corporate scandals, the demand for forensic accounting has increased. Forensic accounting is a branch of accounting that is applied for any suspicion of fraud. It is a ‘specific’ engagement-based activity and non-recurring. The forensic accountants have to have several skills such as basic knowledge of accounting, auditing and financial analysis. They have to be skilled in human relations, communication, information
technology and statistics. Applying these skills, forensic accountants investigate the fraud incident taken place within an organization. Irrespective of the nature of fraud, forensic accountants perform their activities through a five-step process: the engagement, documenting the evidence, analyzing the evidence, the communication and the action. To produce competent forensic accountants, higher educational institutes are offering courses and several degree programs in forensic accounting. Professional institutes also run forensic accounting accreditation programs for their members. Moreover, several associations of forensic accountants have been established for members' professional development. This conceptual paper has important implications for academics, professional accountants, educational institutes, users and other stakeholders. It not only gives an introductory knowledge of forensic accounting to them but also helps as a guide to carry out future studies in forensic accounting issues (profession, regulation, education, etc.) in different contexts. 

References


Cressey, D (1953) Other people's money: a study in the social psychology of embezzlement. Free Press, Glencoe


Abstract

The acceptability of practice of earnings management among the academicians and accounting practitioners was questionable before the study of Bruns and Merchant (1990). After conducting their first survey on the acceptability of practices in earnings management, Bruns and Merchant (1990) found that management was interested in short-term higher earnings performance and get involved more in earnings management practices. This study is based on the Bruns and Merchant (1990) survey and supplements their work by identifying the effects of gender factors towards earning management actions. As well as the acceptability of external auditors regarding earnings management actions based on some predetermined factors. Auditors and Articled students were surveyed. The results indicate that gender played a determining role in auditors’ judgment towards earning management actions. Ethical judgments of the auditors were also found to be influenced by the types of earnings management practices (e.g., accounting vs. operating manipulation), consistency with GAAP, materiality, timing and purpose of the earning management actions. On the other hand, auditors’ were less concerned about the direction of the earning management action. The study made a comparison between findings from the current study with those of prior studies. The respondents believe that accrual-based earnings management practice is less ethical than real earnings management practices likewise the previous studies.

Keywords: Earning Management; Auditor’s Perception, Ethical Judgment.

1.0 Introduction

Corporations are considered as money-making machines and operate to achieve some predefined goals or expectations of different stakeholders. To meet those ever-growing expectations or out of pure moral hazard of
certain people inside the organization, management often does not play by the rules. Sometimes, management engages in different scandals. A corporate scandal is an unethical behavior performed by people from inside or related to the organization to deceive different stakeholders by providing fallacious information (Hamid, Hashim, & Salleh, 2016). Though such scandals have been present in the corporate world for hundreds of years, the startling collapse of Enron Corporation in the United States (one of the major corporate accounting scandals in recent history) trembled public confidence in corporate governance and awakened the regulators. These types of scandals raise the questions as to how the auditors acted in the auditing process of those scandal-hit companies and how auditors got involved in those scandals. Consequently, the increased importance has been placed on the concepts of earnings quality and earnings management practices because of financial frauds and failures worldwide.

International financial reporting standards (IFRS) and International Accounting Standards (IAS) offer a wide variety of choices to treat the same event or transaction (Al-khabash & Al-Thuneibat, 2016). For example, the amount, timing, and purpose of transactions and events can be manipulated without such acts being categorized as fraud or misinterpretation (Foster, 1986). Besides, several principles of Generally Accepted Accounting Principles (GAAP) can be used in favor of management which may result in deteriorating quality of financial information (Makar & Alam, 1998). These loopholes allow managers to report falsified figures to satisfy different stakeholders. Thus, phrases such as earnings manipulation, creative accounting, Hollywood accounting, income skimming, earnings smoothing, and the big bath have become popular among current accounting practitioners. Though, the literature showed varied results regarding the legitimacy of earnings management practice.

It is believed that auditors can play an important role in curbing the number of corporate scandals as they are responsible for ensuring the reliability of the figures stated by the company management. Zhou (2012) stated that auditors are liable for measuring the risk of substantial misstatements, caused by fraud or mistake. Thus, in the majority cases of deception or misstatement of earnings, it is the auditors who are thought to be the first group of people being neglectful in their respective duties. Although the existence and core reasons behind occurrence of earnings management practices have been examined extensively in different countries across the world, until recently the issue has received little or no attention in Bangladesh. In recent time, a good number of companies from different industries are believed to have shown an acute tendency of getting into earnings manipulation to avoid taxes and to mislead different stakeholders (Hasan, 2014; Khan & Akter, 2017). The tendency of influencing stock prices through earnings manipulation is quite common and this practice is supposed to be one of the main causes that triggered the recent of stock market debacles in Bangladesh. Studies on the presence of earnings management issues in Bangladesh are found in a limited number (Ahmed & Azim, 2015; Razzaque et al. 2006; Biswas, 2018; Bhuiyan, 2015; Muttakin et al. 2017; Karim et al. 2011; Kha, 2017; Hasan et al. 2014). All those studies are conducting to identify the existence of earnings management practice based on some established models in different industries. But, Studies on perception on earnings management as well as the view of auditors’ on the practice on earnings management were hardly found. This study is conducted to analyze auditors’ perception on the extent to which the earnings management activities are acceptable to them. The result of this study is intended to fill the gap and to enrich the knowledge of earnings management and develop awareness among regulators and auditors.

2. Literature Review

Different authors have tried to discover the true meaning and scope of earning management through their studies over the years. Earning management is termed as an act of manipulating financial figures to earn extra profit for the personal interest of the managers or organizational benefit (Schipper, 1989). It is as a management action of applying self-assessment while reporting a company’s financial information (Healy & Wahlen, 1999). Other scholars also shared the same belief that it is an occurrence that happens when managers’ discretions alter financial figures to mislead stakeholders about the performance of the company or to impact performance-based contingent results (Prencipe & Bar-Yosef, 2011). Furthermore, earnings management actions had been defined as ways of tailoring income statement so that the statement does not show the real earnings for a
particular period (Goel & Thakor, 2003). Earning management has also been defined as the deliberate construction of reporting or investment decisions, keeping the bottom-line impact in mind (Ayres & Frances, 1994).

Earnings management can also be observed from economic (or true) income perspective or an informational perspective. Managers manipulate income using their selections of accounting rules, decisions, or their timing or choice of operating decisions. Also, a number of their incentives influence managers’ choices. Managers also show a propensity to manage earnings when earnings are extreme in either direction (Merchant & Rockness, 1994). Earnings management activities can be categorized as accounting-based activities or operating-based activities. Unduly altering the reserve amount to change reported income is an instance of accounting-based earning management. On the contrary, postponement of discretionary expenditures into the future to improve current income is an example of earning management through operating-based activity (Kaplan, 2001).

Discretionary accruals manipulation is an earnings management technique that involves modifying accruals to achieve desired earnings. As per other academicians, accrual management is the manipulation of financial data to hide the actual figure by remaining within the periphery of Generally Accepted Accounting Principles (GAAP) (Gunny, 2010). Beyond the range of GAAP, the manipulation will be considered a violation of accounting standards. Some authors described earnings management to be both artificial and real and they believed that artificial earnings management is realized utilizing the reporting flexibility awarded by the GAAP (Goel & Thakor, 2003). Costs related to artificial earnings management are not discernable like those related to loss of reliability or other such activities. In contrast, costs related to real earnings management are obvious, such as providing promotional discounts. It is pointed out by other authors that usually during seasoned equity offerings, accrual manipulation occurs. They also noticed that discretionary current accruals grow before the offering, peak in the offering year, and decline thereafter (Teoh, Welch, & Wong, 1998). They observed that compared to those non-issuers, discretionary current accruals are high around the IPO for equity issuers. Issuers can report abnormally inflated incomes by making changes using discretionary accruals. Another study on Malaysian initial public offerings (IPOs), found that the companies reported inflated earnings management in the IPO years (Ahmad-Zaluki, Campbell, & Goodacre, 2011). He, Yang, and Guan (2011) opined that accounting accruals used at the time of private placements stand as a sign of the post-issue long-term stock underperformance. In addition, managers occasionally report smooth earnings so as to show that the companies have ability to a certain amount of dividend as a means to increase the company’s share price (Aljifri, 2007). Daniel, Denis, and Naveen (2008) reached a similar conclusion as they found that firms that pay dividends view the projected dividend level to be a key earnings threshold.

Till now, real operating activities as a means of earning manipulation have received less attention compared to accrual management although a major part of earnings management occurrences had happened as a result of manipulation of real operating activities. Real activities manipulation occurs when managers purposefully try to influence the accounting outcome by modifying transactions related to business operations (Dechow & Skinner, 2000). Chen and Tsai (2010) defined real activities as the alteration of information regarding production and distribution to overstate financial reporting performance to achieve a target. As per Gunny (2010), real activities management decisions are usually made prior to the end of the fiscal year, while accrual management occurs after the fiscal year end. Matsuura (2008) suggests that real earnings management is done through the management of real production and investment choices. Osma (2008) found that managers usually increase short-term profit by cutting research and development expenses. Elias (2002), based on his survey on Certified Public Accountants (CPA), industry professionals, accounting faculties, and accounting students, found that the respondents assumed operating manipulation are more ethical than accrual manipulations. Mizik (2010) thinks of motivations that lead to earning management: propping stock price, and having private information that are not available to the market. He called real activities manipulation myopic management, as these are done to create positive market reactions. Roy Chowdhury (2006) blamed the presence for debt as the reason for real activity manipulation. According to him, firms strive to maintain a good relation with the debtors by hiding the real financial health. He
believes there is evidence of a positive relationship between inventory stock, receivables, and growth prospects with real activity manipulations. He also affirms that the firms which are reporting positive profits in smaller amounts and smaller positive earnings forecast errors were managing earnings via real activities management. Cohen and Paul (2010) while probing public offerings, noticed that real earning management activities are more harmful than accrual management activities. Earnings management is a significant ethical issue because it is related to the manipulation of information relating to a company’s earnings or performance. Many studies have been done with a common view to derive auditors’ view on the acceptability of earning management issues.

Al-khabash and Al-Thuneibat (2016), for instance, studied how internal and external auditors view earning management through a specially designed questionnaire and tried to understand how the auditors perceive different earning management cases. In their study, they discovered that external auditors think the management takes part only in legitimate earning management which is undertaken either to inflate or deflate income. On the other end, internal auditors reflect that managers are involved in legitimate earning management practices that only lift income. They also concluded that internal governance arrangement have a significant effect on illegitimate earning management. However, they did not find any significant effect on internal governance structure on legitimate earning management. Merchant and Rockness (1994) opine that an assessment of the acceptability of earnings management must be undertaken to develop an understanding of the earnings management issue and to find ways to unravel those issues. Their study illustrates that acceptability of earnings management differs with type, size, timing, and purpose of the earnings management actions used. Additionally, it showed opinion also varies by respondent type (i.e. general managers, staff managers, operating unit controllers, and internal auditors). Hence, they called for additional research to draw responses from other group of respondents, i.e. external auditors, as their judgments concerning the acceptability of earnings management might be linked to the role they play in the reporting process. Chi, Lisic, and Pevner (2011) through their study opined that, when faced with limited opportunity for earning management, firms could resort to real earnings management. They also reported that better quality of audit can prevent firms from engaging accrual earnings management.

Bedard, Chtourou, and Corteau (2004) showed that auditors with more expertise are more effective in detecting earnings management. Chang et al. (2003) in another study examined what role the board of directors and audit committee play in preventing earning management with a focus on current discretionary accruals. The study found an inverse relationship between the number of independent managers and discretionary accruals. Furthermore, it also concluded that a strong inverse relationship exists between volume of sale, market capitalization/size of equity, amount of book value of total assets, and accruals. On the basis of interviews with more than 400 executives working in US firms, Graham et al. (2005) concluded that earning management goals are attained by means of real economic actions such as postponing advertising expenditures, in contrast to manipulation by engaging accounting discretions, such as accrual management, which abide by GAAP rules. Auditors provide reliable assurance that financial statements door do not contain substantial misrepresentations.

Based on these studies following research questions have been developed –

**Research Questions:**

Q1: Whether there are any significant differences in opinion found between males and females on the ethicality of earnings management actions?

Q2: Whether judgment of external auditors’ acceptability regarding earning management actions depend on following six different earnings management attributes (Types of action - accounting vs. operating manipulation; Consistency with GAAP; The direction of the effect on earnings; Materiality; The period of effect; and The purpose in mind).

**Research Hypothesis:**

H1: There is a significant difference in opinion found between male and female on ethicality of the earnings management actions.

H2: There is a difference found in the judgment of the external auditor’s acceptability regarding earning management action.
3.0 Research Method

The method used in this study is analogous to the methodology used by Bruns and Merchant (1990). One of the key arguments for selecting this specific questionnaire is that the questionnaire is widely accepted and has been used in similar studies by different authors to study the ethical acceptance of business managers, undergrad students, academicians, and accounting practitioners. (Clikeman et al., 2001; Rosenzweig & Fisher, 1994; Fisher & Rosenzweig, 1996; Merchant & Rockness, 2011; Jooste, 2011). Our study adds to the existing literature not only by assessing the perceptions of external auditors of Bangladesh but also by testing any differences in their opinions based on gender. Additionally, by using a similar methodology, this study compared the results with the previous similar studies from all over the world.

Data has been collected using a survey questionnaire, originally developed by Merchant (1989) and subsequently modified and used by Bruns and Merchant (1990), which consisted of thirteen short scenarios, each describing a potentially questionable earnings management activity taken by a hypothetical profit center manager.

3.1. Data and Sample

The questionnaires were distributed among a sample of 150 auditors including Chartered Accountants, Associate chartered accountants, CA partly qualified, Articled students of some renowned audit firms on a random basis and based on convenient sampling methods. Out of the distributed questionnaires, only 97 were returned. The audit firms were chosen randomly by selecting the first firm and those at intervals of six thereafter. After checking all the returned questionnaires, thirteen (13) questionnaires were found to be incomplete, thus making the total number of useable questionnaires to be 84, yielding a response rate of 56 percent. The response rate appears to be more than half of the distribution, but it is considered as normal as mailed questionnaires are commonly not returned (Salleh & Stewart, 2013).

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26. The participants were asked to assess each of the 13 short-term earnings management activities (both accrual-based and real earnings management) and rate those practices based on a five-point Likert scale.

4. Result and Discussion

4.1. Descriptive Statistics

Table 1 provides a breakdown of the respondents by group and gender. A total of 84 auditors (including 60 partly qualified chartered accountants and articled students) were included in the survey. It was found that 64% of respondents were male while 36% of respondents were female. The majority of the respondents were article students.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Demographic data of the respondents</th>
<th>No. of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Chartered Accountants</td>
<td>11</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Associate chartered accountants</td>
<td>13</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>CA partly qualified</td>
<td>21</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Articled students</td>
<td>39</td>
<td>46%</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>54</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>30</td>
<td>36%</td>
</tr>
</tbody>
</table>

4.2. Opinion difference in case of earnings management actions based on Gender

The first research question is designed to know whether there is any significant difference in opinion...
between females and males regarding the ethicality of the thirteen earnings management actions. Table 2 is about the mean differences in different aspects based on the questionnaire surveyed. It is found that female seemed stricter than their male counter parts (based on average ratings of 13 scenarios). Females rated 7 situations more strictly, while males have rated 4 situations more strictly than females. Both groups gave diverse opinion on 7 occasions, while gave similar ratings on 5 occasions and agreed on rating of one of the situations.

It has been found that significant differences in opinion exist between male and female based on mean ratings at 0.05 significant levels.

- Defer expenses to meet annual budget (Action 2b) – Male stricter
- Defer supplies expense by delaying recording invoice (Action 3) – Female stricter
- More liberal credit terms to reach budget target (Action 4a) - Female stricter
- Work overtime to reach budget target (Action 4b) - Female stricter
- Prepay expenses to reduce income by $60,000 (Action 5a) - Female stricter
- Increase reserve for obsolescence; reduce income $70,000 (Action 5b) - Female stricter
- Reduce reserve for obsolescence to meet budget target (Action 6b) - Male stricter

### Table-2: Mean rating of respondents to various earning management actions

<table>
<thead>
<tr>
<th>Action Description</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1. Paint ahead of schedule (Action 1)</td>
<td>1.78</td>
</tr>
<tr>
<td>2. Defer expenses to meet quarterly budget (Action 2a)</td>
<td>2.22</td>
</tr>
<tr>
<td>3. Defer expenses to meet annual budget (Action 2b)</td>
<td>3.00</td>
</tr>
<tr>
<td>4. Defer supplies expense by delaying recording invoice (Action 3)</td>
<td>3.67</td>
</tr>
<tr>
<td>5. More liberal credit terms to reach budget target (Action 4a)</td>
<td>2.33</td>
</tr>
<tr>
<td>6. Work overtime to reach budget target (Action 4b)</td>
<td>1.44</td>
</tr>
<tr>
<td>7. Sell excess assets to reach budget target (Action 4c)</td>
<td>2.00</td>
</tr>
<tr>
<td>8. Prepay expenses to reduce income by $60,000 (Action 5a)</td>
<td>3.33</td>
</tr>
<tr>
<td>9. Increase reserve for obsolescence; reduce income $70,000 (Action 5b)</td>
<td>3.56</td>
</tr>
<tr>
<td>10. Reduce reserve for obsolescence to continue work (Action 6a)</td>
<td>3.00</td>
</tr>
<tr>
<td>11. Reduce reserve for obsolescence to meet budget target (Action 6b)</td>
<td>3.89</td>
</tr>
<tr>
<td>12. Request deferred billing from supplier, $30,000 (Action 7a)</td>
<td>3.67</td>
</tr>
<tr>
<td>13. Request deferred billing from supplier, $500,000 (Action 7b)</td>
<td>4.33</td>
</tr>
<tr>
<td>Overall Rating (Average)</td>
<td>2.94</td>
</tr>
</tbody>
</table>

### 4.3. External Auditors’ acceptability regarding earnings management actions

The second research question is defined to know whether judgment of external auditors’ acceptability regarding earnings management actions depend on some specific attribute of earnings management practice. From the below mentioned Table 3, it has been found that:

#### 4.3.1. Type:

Ethical judgments of the auditors were found to be affected by the Type of earnings management practice (t=20.71). Between the two earning management methods, auditors have rated operating method (mean rating: 2.19) more favorably than accounting method of earning manipulation (mean rating: 3.68). Auditors’ ratings for both types ranged from 1-5, and they also showed considerable disagreement in their ratings for respective types (SD: 1.25 and 1.18).
4.3.2. Consistency:
Auditors’ judgement was also found to be affected by whether or not the accounting manipulations were consistent with GAAP or not (t = 4.31). They rated both GAAP consistent and non-consistent earning manipulation actions comparatively harshly (mean ratings: 3.45 and 3.86). Auditors’ ratings for both GAAP consistent and no consistent earning manipulations ranged from 1-5, and they also showed considerable disagreement in their ratings (SD: 1.23 and 1.12).

Table-3: Auditors’ acceptability regarding earnings management actions based on following six different earnings management attributes

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Related Questions</th>
<th>Range</th>
<th>Mode</th>
<th>Mean</th>
<th>SD</th>
<th>T Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Operating Method</td>
<td>1-5</td>
<td>1.00</td>
<td>2.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accounting Method</td>
<td>3, 5a, 5b, 6a, 6b, 7a, 7b</td>
<td>1-5</td>
<td>5.00</td>
<td>3.68</td>
<td>1.18</td>
</tr>
<tr>
<td>Consistency</td>
<td>Consistent</td>
<td>5b, 6a and 6b</td>
<td>1-5</td>
<td>3.00</td>
<td>3.45</td>
<td>1.23</td>
</tr>
<tr>
<td></td>
<td>Non-consistent</td>
<td>3, 5a, 7a, 7b</td>
<td>1-5</td>
<td>5.00</td>
<td>3.86</td>
<td>1.12</td>
</tr>
<tr>
<td>Direction</td>
<td>Increase</td>
<td>2a, 2b, 3, 4a, 4b, 4c, 6a, 6b, 7a, 7b</td>
<td>1-5</td>
<td>3.00</td>
<td>2.99</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>Decrease</td>
<td>1, 5a, 5b</td>
<td>1-5</td>
<td>5.00</td>
<td>3.02</td>
<td>1.49</td>
</tr>
<tr>
<td>Materiality</td>
<td>7a and 7b</td>
<td>2-5</td>
<td>5.00</td>
<td>4.00</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>Period</td>
<td>2a and 2b</td>
<td>1-5</td>
<td>2.00</td>
<td>2.43</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>6a and 6b</td>
<td>1-5</td>
<td>3.00</td>
<td>3.32</td>
<td>1.25</td>
<td></td>
</tr>
</tbody>
</table>

4.3.3. Direction:
Direction of earning management was not found to be very important. Auditors’ judgement was not significantly affected by the direction of earning management actions (t=0.3). They rated earning manipulation actions through both increasing and decreasing earnings comparatively moderately (mean ratings: 2.99 and 3.02). Auditors’ ratings for earning manipulations through both increasing and decreasing earnings ranged from 1-5, and they also showed considerable disagreement in their ratings (SD: 1.4 and 1.49).

4.3.4. Materiality:
Size of the earning management action found to have mattered (t = 4.13). Larger earning manipulations (7b) were more harshly rated than small earning manipulation action (7a).

4.3.5. Period:
Timing/period of the earning management action has also been found to have mattered (t=2.15). Deferring expenses to meet annual budget (2b) was more harshly rated than Defer expenses to meet annual budget (2a).

4.3.6. Purpose:
The purpose of managing earning was a real concern for the auditors (t = 3.37). Earning management for the corporation’s best long-term interest (continuation of some important product development projects) was more favorably rated than a more selfish purpose (make budgeted profit targets).

4.4. Comparative Study
Lastly, a comparison is conducted between results found from this study with the prior studies from literature survey. From the summary shown below in Table 4, it can be seen that the mean value of 13 (thirteen) scenarios of current study is above the mean values of prior studies. It can be said that earning management actions seem less ethical to present day auditors’ than the auditors did in the past. The respondents of current study rated 7 actions (action 1, 4a, 4c, 5a, 5b, 7a, 7b) comparatively more harshly than the respondents of previous studies.
Table-4: Comparison of Findings from this study with Prior Research Findings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Paint ahead of schedule (Action 1)</td>
<td>1.79</td>
<td>1.09</td>
<td>1.20</td>
<td>1.18</td>
<td>1.26</td>
</tr>
<tr>
<td>2. Defer expenses to meet quarterly budget (Action 2a)</td>
<td>2.21</td>
<td>2.81</td>
<td>1.98</td>
<td>1.62</td>
<td>1.81</td>
</tr>
<tr>
<td>3. Defer expenses to meet annual budget (Action 2b)</td>
<td>2.64</td>
<td>3.56</td>
<td>2.29</td>
<td>1.88</td>
<td>2.09</td>
</tr>
<tr>
<td>4. Defer supplies expense by delaying recording invoice (Action 3)</td>
<td>3.86</td>
<td>2.96</td>
<td>3.27</td>
<td>3.29</td>
<td>3.42</td>
</tr>
<tr>
<td>5. More liberal credit terms to reach budget target (Action 4a)</td>
<td>2.71</td>
<td>2.24</td>
<td>1.70</td>
<td>1.81</td>
<td>1.96</td>
</tr>
<tr>
<td>6. Work overtime to reach budget target (Action 4b)</td>
<td>1.86</td>
<td>2.08</td>
<td>1.42</td>
<td>1.30</td>
<td>1.31</td>
</tr>
<tr>
<td>7. Sell excess assets to reach budget target (Action 4c)</td>
<td>1.93</td>
<td>1.73</td>
<td>1.41</td>
<td>1.25</td>
<td>1.25</td>
</tr>
<tr>
<td>8. Prepay expenses to reduce income by $60,000 (Action 5)</td>
<td>3.57</td>
<td>2.76</td>
<td>2.96</td>
<td>3.27</td>
<td>3.27</td>
</tr>
<tr>
<td>9. Increase reserve for obsolescence; reduce income $70,000 (Action 5b)</td>
<td>3.71</td>
<td>3.06</td>
<td>3.21</td>
<td>3.32</td>
<td>3.51</td>
</tr>
<tr>
<td>10. Reduce reserve for obsolescence to continue work (Action 6a)</td>
<td>3.00</td>
<td>2.55</td>
<td>3.11</td>
<td>3.50</td>
<td>3.59</td>
</tr>
<tr>
<td>11. Reduce reserve for obsolescence to meet budget target (Action 6b)</td>
<td>3.64</td>
<td>3.16</td>
<td>3.43</td>
<td>3.71</td>
<td>3.69</td>
</tr>
<tr>
<td>12. Request deferred billing from supplier, $30,000 (Action 8a)</td>
<td>3.71</td>
<td>2.79</td>
<td>2.89</td>
<td>3.24</td>
<td>3.76</td>
</tr>
<tr>
<td>13. Request deferred billing from supplier, $500,000 (Action 8b)</td>
<td>4.29</td>
<td>3.76</td>
<td>3.75</td>
<td>4.15</td>
<td>4.05</td>
</tr>
<tr>
<td>Average Rating</td>
<td>2.99</td>
<td>2.66</td>
<td>2.51</td>
<td>2.58</td>
<td>2.69</td>
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</table>

*The mean values of prior studies were based on the results presented in the respective studies.

At present, the respondents believe that accrual-based earnings management practice is less ethical than real earnings management practices. These findings are similar to the findings from Bruns and Merchant (1990), Merchant and Rockness (1994), Clikeman et al., (2001) studies. In addition, auditors especially female auditors think that earning management issues are unethical and they are more concerned whether the earnings management practices are consistent with GAAP. But, differences were found in case of Clikeman et al. (2001) studies. They asserted that male and female both acknowledged the ethical practices in the similar ways. Their empirical study found no indication that gender has a substantial impact on the judgment of ethical acceptability which is contradictory with the findings of the current study.

5. Discussion and Conclusion
The perception of individuals from different countries in an attempt to evaluate the climate for earnings management and potential for financial wrongdoings is important. Even after the adoption of a common set of laws worldwide, a constant pressure in accounting and business across the globe pressure on the firm’s financial reporting executives to manage the company’s reported financial results (Hogan et. Al. 2008). Because of the pressure of Stakeholders to report constant financial position of a company, the information of financial misconduct is in a constant stream around the world. This study is conducted to know the perception of auditors in earnings management practice in case of Bangladesh. First, the study aimed at identifying whether gender plays any determining role in case of judgment towards earning management actions. The result shows that gender indeed played a determining role. Female auditors have rated questionable earning management actions more harshly than the action did by the male auditors. Secondly, the study wanted to determine whether judgment of external auditors’ acceptability regarding earnings management actions depends on some predetermined factors or not. It is found that acceptability of the auditors are influenced by the method of earnings management practice, consistency with GAAP, materiality, timing, and purpose of the earning management actions. On the other hand,
they were less concerned about the direction of the earning management action.

The result from this study confirms that auditors rated the operating method more favorably than the accounting method for earning manipulation. It is also found that larger earning manipulations were more harshly rated than small earning manipulation actions. Auditors view earning management practice for the long-term interest of the company more favorably than a more selfish purpose. The direction of earning management was not found to be very important. Timing of the earning management action has also been found to have any impact on auditors’ judgment. As decades have passed since the occurrences of major accounting scandals and the enactment of corporate governance worldwide, it is believed that there could be a shift in attitude among auditors toward the acceptability of short-term earnings management practices. This revelation opens up scope for future studies as to whether auditors’ perception has changed with time or not. It also raised the question of what caused such a shift in auditors’ judgment towards questionable earning management actions. It is also imperative to examine whether the past scandals and corporate governance of the organization have influenced auditors’ judgment regarding earnings management actions.

Nonetheless, there are some limitations of this study. At first, individual judgment may vary from time to time due to varying exogenous factors such as organizational pressure, incentives, and the tendency to meet business targets or other motives. Secondly, this study only takes 13 predefined scenarios into account where managers use multifarious techniques to boost the bottom line of a company. Again, the study only considers the responses of a selective set of students and professional auditors who might not be representative of all students and business managers nationally. Moreover, while all answers were anonymous, some psychological or social biases could have been active during the response process. The timing of the responses may also have influenced the judgment of respondents. Even though there is a growing number of researches are being undertaken to study earnings management practices, there is little concern about focusing on auditors’ view or acceptability of such cases. Ensuing studies can supplement present study by using diverse sets of respondents such as managers, students, regulators, teachers, etc. or may examine the effect of ethnicity, race or seniority level of respondents on the acceptability of earnings management. 

References


This questionnaire consists of 13 short scenarios, each describing a potentially questionable earnings management activity taken by a hypothetical profit center manager. Assume that the divisions referred to are part of a 1 billion corporation, which has a January-December financial year. Each division has annual sales of 100 million, with annual before-tax operating profit of 12 million. Some of these actions are clearly ethical. Others are judged by some or most people to be unethical, and the judgments as to the degree of severity of the infraction can vary widely.

Please indicate your judgment as to the acceptability of each of the practices using the following scale:

1. Ethical practice
2. Questionable practice: I would not say anything to the person involved, but it makes me uncomfortable.
3. Minor infraction: The person should be warned not to engage in the practice again.
4. Serious infraction: The person should be severely reprimanded.
5. Totally unethical: The person should be fired.

**Answer each question separately (Assume the incidents are independent)**

<table>
<thead>
<tr>
<th>Questionnaire on ethics</th>
<th>Ethical Practice</th>
<th>Totally Unethical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>1. The division's buildings were scheduled to be painted in 2002. Since the division's profit performance was way ahead of budget in 2001, however, the division general manager (GM) decided to have the work done in 2001.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>2. The GM instructed his employees to defer all discretionary expenditures (e.g. travel, advertising, hiring, and maintenance) into the next accounting period so that his division could make its budgeted profit targets. Expected amount of deferral: 1,50,000</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. On December 15, a clerk in the division placed an order for 3,000 worth of office supplies and the supplies were delivered on December 29. This order was a mistake because the division GM had ordered that no discretionary expenses be incurred for the remainder of the fiscal year, and the accounting policy manual states that office supplies are to be recorded as an expense when delivered. The division GM learned what had happened, however, and to correct the mistake, he ordered the accounting department not to record the invoice until February.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. In September, a GM realized that the division would need strong performance in the last quarter of the year in order to reach its budget targets.</td>
<td>1 2 3 4 5</td>
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He decided to implement a sales program offering liberal payment terms to pull some sales that would normally occur next year into the current year; customers accepting delivery in the 4th quarter would not have to pay the invoice for 120 days.

He instructed manufacturing to work overtime in December so that everything possible could be shipped by the end of the year.

He sold some excess assets and realized profit of 40,000.

5. At the beginning of December 2001, a GM realized that the division would exceed its budgeted profit targets for the year.

He ordered his controller to prepay some expenses (e.g., hotel rooms, exhibit expense) for major trades show to be held in March 2002 and to book them as 2001 expense. Amount: 60000.

He ordered his controller to develop the rationale for increasing the reserve for inventory obsolescence. By taking a pessimistic view of future market prospects, the controller was able to identify 7,00,000 worth of finished goods that conservative accounting would say should be fully reserved (i.e., written off), even though the GM was fairly confident the inventory would still be sold at a later date at close to full price.

6. The next year, the division described in question 5b sold 70% of the written off inventory, and a customer had indicated some interest in buying the rest of that inventory the following year.

The GM ordered his controller to prepare the rationale for reducing the reserve for obsolescence by 2,10,000 (i.e., writing up the previously written-off goods to full cost). The GM’s motivation for recapturing the profit was:

To be able to continue working on some important product development projects that might have had to be delayed due to budget constraints.

To make budgeted profit targets.

7. In November 2001, a division was straining to meet budget. The GM called the engagement partner of a consulting firm that was doing some work for the division and asked that the firm not send an invoice for work done until the next financial year. The partner agreed. Estimated work done but not invoiced:

<table>
<thead>
<tr>
<th>Amount</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>30,000..........</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5,00,000........</td>
<td></td>
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Full Name: [Blank]
Gender: [Blank]
Qualification: [Blank]
The Effect of Credit Risk Management on the Financial Performance of Banks: A Study on Selected Private Commercial Banks in Bangladesh

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Abstract
This study examined the impact of credit risk management on the financial health of private commercial banks and also attempted to establish if there exists any relationship between the credit risk management determinants and financial performance of private commercial banks in Bangladesh. A causal research design was undertaken in this study and this was facilitated by the use of secondary data which was obtained from the Bangladesh Bank publications and annual reports of selected banks from 2000 to 2018. The study used time series analysis in the analysis of data and the findings have been presented in the form of tables and regression equations. The study found that there exists no co-integration among the study variables. The study also established from time series analysis that there is short run causality between credit risk management indicators and financial performance. In regression analysis, it has also been found that the variables LLP of PCBs and ADR of PCBs have a significant impact on ROA in the short–run. And the variables CAR of PCBs and NPL of PCBs have short–run impact on ROA of PCBs but not statistically significant. This study concludes that credit risk management indicators have short-run influence on the financial health of private commercial banks in Bangladesh. The research work suggested that the commercial banks should follow the guidance of central bank regarding non-performing loans, loan-loss provisions, capital adequacy ratio and advance-deposit ratio to keep the credit risk at optimum level and to maintain sustainability.

Keywords: Return on Assets, Non-Performing Loans, Loan-Loss Provision, Advance–Deposit Ratio, Capital Adequacy Ratio.
1.0 Introduction

Credit risk is the potential loss that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. According to Chijoriga (1997) credit risk is the most posh risk in financial institutions and its influence is more substantial as compared to other risk as it directly threatens the soundness of financial institutions. The extent and level of loss initiated by the credit risk as compared to other kind of risks is severe to cause high level of loan losses and even bank failure. While financial institutions have tackled complications over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to slack credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank’s counterparties (Basel, 1999).

Loans and advances are the largest source of credit risk to commercial banks. However, other sources of credit risk exist during the course of the activities of a bank, including in the banking book and in the trading book, and both on and off the balance sheet exposures. Now-a-days, banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans and advances, including acceptances and endorsements, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions. The objective of credit risk management is to maximise a bank’s risk adjusted rate of return by maintaining credit risk exposure within acceptable limits. Banks need to manage the credit risk inherent to the entire portfolio as well as the risk in individual credits as transactions (Sinkey, 1992). Credit risk management should be at the core of banks operations in order to maintain financial sustainability and soundness. Despite these facts, over the years there has been increased number of significant bank problems in both, matured as well as emerging economies (Brownbridge and Harvey, 1998; Basel, 2004). Among other factors, weakness in credit risk management has all along been cited as the main cause for bank problems (Richard et al., 2008 and Chijoriga, 1997).

Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should now have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred (Basel, 1999).

2.0 Literature Review

The literature review contains the citation of prior studies done on credit risk management and financial performance of financial institutions and the synopsis of those studies. At first, the study included a summary of the studies that have been on the credit risk management and the financial performance of different countries. And then, it has included the studies done in the context of Bangladesh.

Skridulyte & Freitakas (2012) described the special issue like concentration risk in the loan portfolio. They also used various methods to measures this type of risk. They found that the concentration risk in bank loan portfolios for a single borrower or a group of borrowers is rather high and thus, the risk of loss arises to the bank. They also found that the main reasons of credit concentration risk are specialization of banks, seeking for higher profit and the other externalities beyond the control of the bank. The authors also found that the sources of concentration risk may be diverse but the main source remains large credit for separate borrowers, related borrowers, borrowers of the same sector, loans of the same foreign currency, etc. They used various models to determine the sectorial concentration risk such as: a) The Herfindahl-Hirschman Index (HHI), b) The Gini-coefficient model, c) distance measures, d) Multi-factor models. The Gini index shows that loans disbursed by Lithuanian banks are distributed unevenly. The Herfindahl-Hirschman index (HHI) does not indicate a significant concentration in the portfolio. They concluded that the loan portfolio of the Lithuanian banking sector by sectors of economic activities became more concentrated and dependent on a sector of immovable property and renting during the period concerned.

In Japan, Yasuda, Okuda, & Konishi (2004) conducted this empirical study and examined the relationship between bank risk and earnings management. They
found that bank risk is negatively associated with discretionary accruals, indicating that investors misinterpreted high reported earnings as favorable information about bank financial health. They also marked that the negative relationship was very powerful prior to the major bank failures in late 1997 and 1998, but it diminished subsequent to the failures. They concluded that investors started to anticipate potential manipulation of financial reports by bank managers more rationally after the major bank failures.

Singh (2014) studied the impact levels of credit risk management towards the profitability of Indian commercial banks in India. The study was quantitative in nature and intended to comparative study between the state-owned banks and private banks. In this study, he used ROA (Return on Assets) as the dependent variable; NPAs (Non-Performing Assets) and CAR (Capital Adequacy Ratio) as independent variables. Here, the researcher collected data from FBI from 2003 to 2013. The empirical result showed that there was a significant relationship between bank performance (in terms of return on asset) and credit risk management (in terms of the nonperforming asset). The study reveals that there was a direct but inverse relationship between return on asset (ROA) and the ratio of non-performing asset (NPA). He concluded that better credit risk management results in better bank performance. Finally, he recommended the public sector banks to effectively use technology to counter the challenges posed by the private sector banks and to provide training for the employee to enhance their capacity.

Nayan & Kumaraswamy (2014) focused on the credit risk management practices in public sector banks and management of retail loans and advances in India. They argued that the changing operating environment for the banking sector, underpinned by liberalization, privatization, and globalization, coupled with the reforms of information technology, has resulted in intense competitive pressures and increased the importance of credit risk management. The study used secondary sources of data from FBI’s on PSBs. They found that the asset quality of public sector banks improved consistently in the past few years as reflected in the decline in the two ratios i.e. gross NPAs as a percentage of gross advances, and gross NPAs as a percentage of total assets. They also found that the retail credit in public sector banks had been increasing after the economic reforms. They suggested that the public sector banks must follow the guidelines of the creditworthiness of the borrowers and decide the amount and nature of loan to reduce the NPAs in retail credit by which the risk can be effectively managed and the rate of NPAs can also be reduced in the retail products. They also recommended that the public sector banks should ensure adequate security for retail credit. One of the major drawbacks of the study was the absence of any hypothesis to draw a conclusion.

Maraghni & Rajhi (2015) examined the simultaneous effect between the variations of capital ratio and the level of credit risk in Tunisia. To analyze the panel data, they estimated a structural model in double simultaneous equations by using 3SLS estimation. They found that the regulatory constraints on the requirement of banks’ capital in Tunisia exhibit no incidents on the behavior of credit risk. In addition, they found that the stock of capital reserves (Capital Buffer) was negatively related to a significant degree on the level of the capital ratio of these banks.

Angote, Malenya, & Musiega (2015) focused on the relationship between financial leverage and performance of commercial banks in Kenya; determination of how product diversification affects the performance of commercial banks and how credit policies effect on the performance of Kenyan commercial bank. They have used primary data through questionnaire and secondary data also. Data that was collected from respondents were coded appropriately and analyzed using the statistical package for social science (SPSS). The study also used regression analysis to determine the relationship between variables (independent and dependent variables). The descriptive and inferential result showed that there was a positive and significant relationship between the diversification of products and the financial performance. Furthermore, the multiple regression results showed that financial leverage, diversification of products and credit policy all had a significant effect on financial performance. They also found that financial leverage was the most important factor to have a positive effect on financial performance, followed by credit policy and diversification of products. They concluded based on their findings that when the firm used shareholders equity to finance the capital structure, then good financial performance was witnessed. There was also evidence from the study showing that the diversification of products has led
Finally, credit policy and regulations were found to have positive impact on financial performance. They recommended that banks should be further evaluated for more diversification and they should adhere to credit policies and regulations. They also suggested that banks should train up their staffs on credit management and lending limits.

Kipngetich & Muturi (2015) identified the effect of credit risk management on the financial performance of savings and credit cooperative society. They have used two independent variables namely, capital adequacy and management efficiency; and one dependent variable that was financial performance. They had used a cross-sectional descriptive research design and data were collected from secondary sources. They utilized SPSS program to analyze the collected data and developed a regression model. The empirical results showed that capital adequacy and management efficiency had a positive and statistically significant relationship with financial performance. This indicated that the increase in capital adequacy and management efficiency leads to an increase in financial performance. They recommended that management should make policies by considering the materiality of capital adequacy and should adopt sound credit risk management to ensure suitable credit risk policies. They also suggested that the government and other stakeholders should ensure a favorable external business environment.

Haneef et al (2012) have analyzed the impact of risk management on non-performing loan and profitability of the banking sector of Pakistan. The study was mainly secondary data based. In this study, they argued that there were no proper risk management techniques for managing risk in the banking industry in Pakistan. They concluded that non-performing loans were increasing due to the lack of risk management which threatens the profitability of banks. They suggested that the banking sector can avoid their nonperforming loans by adopting methods suggested by state bank of Pakistan. One of the major drawbacks of the study was that they failed to justify their conclusion empirically.

Vidyashree & Rathod (2015) they focused on the credit risk and its measurement tools to recover Non-performing assets in India. In their study, they highlighted various types of risk which were faced by commercial banks namely; credit risk, market risk (equity risk, interest rate risk, foreign exchange risk, and commodity risk), operational risk, liquidity risk, and reputational risk. They argued that the risk management process is vital because poor risk management affects the banking industry’s financial results and capital. They found that the ratio of gross NPAs marginally increased more in public sectors bank than foreign banks. They recommended that public sectors banks should minimized NPAs by adhering to credit risk controlling tools. They also suggested that employees of banks should take proper initiatives to follow the credit policies. The study was based on secondary sources of data and focused only on NPAs but they failed to exhibit a relationship with other influential factors of credit risk.

Abdelrahim (2013) investigated the determinants, challenges and developing means of credit risk management at Saudi Arabian Banks. He used the research model which was “CAMEL” that indicates the relationship between the independent variables of capital adequacy, asset quality, management soundness, earning, and liquidity, and the dependent variable of Effectiveness of credit risk management. He collected data from both primary and secondary sources. He found that liquidity had significant positive impact beside bank size which had significant negative impact on the effectiveness of credit risk management. While other variables of capital adequacy, asset quality, management soundness and earning had an insignificant impact on the effectiveness of credit risk management. He also found that effective credit risk management was facing some obstacles namely weak corporate governance, low quality of assets, little credit diversification; not conducting serious financial analysis; not charging risk premium on risky loans, corruption of credit officers; priority of profitability at expense of safety and priority of loan guarantees at expense of capacity of repayment. Researcher recommended that an overall strategy for effective credit risk management of Saudi Banks based on enhancing capital adequacy, upgrading asset quality, strengthening management soundness, increasing earnings, having adequate liquidity and reducing sensitivity to market risk besides hedging credit risk; having adequate provisions for doubtful credit; renegotiating loan terms, transferring credit risk to a third party, extending credit maturity and lowering interest rate on insolvent loan.

Espinoza & Prassad (2010) have concluded that the
nonperforming ratios of credit of the GCC banks have increased from 7% to 15% during (1995-2008) due to declining economic growth, increasing interest rates, and risk aversion increase. Such a worsening of nonperforming ratios (NPLs) has a reverse effect on the macroeconomics of GCC countries with semi-elasticity around 0.4 between NPLs and macroeconomics of GCC.

Kodithuwakku (2015) focused on the impact of credit risk management on the performance of the commercial banks in Sri Lanka. The study was based on both primary and secondary data. The study has used a regression model to build up the relationship between dependent variable and independent variables with the help of E-views software. In this study, the researcher used Return on Assets (ROA) as dependent variable and Loan provision to Total Loan (LP/TL), Loan Provision to Non-Performing Loans (LP/NPL), Loan Provision to Total Assets (LP/TA) and Non-Performing Loans/ Total Loans (NPL/TL) were used as independent variables as indicators of credit risk. From the primary data, the researcher found that a clear process for reporting risk would enable the banks to reduce the impact of risk significantly. He also found that the development of effective training programs for the staff members that are based on the latest environmental conditions would be helpful for managing credit risk. Finally, he concluded that the predominant purpose of the training on credit risk management is to improve the expertise and knowledge on credit risk and to avoid unnecessary events of those risks being materialized. Hence, this expertise would enable the banks to reduce the impact of credit risk on financial aspects of the banks and improve the profitability through the reduction of cost. From the secondary data, the empirical results exhibited that individually, all the independent variables except loan provision to total loan have negative impact on profitability. On the other hand, the regression results showed that loan provision to total assets of the banks was significantly positively related to ROA. He concluded based on his study findings that the banks should ensure well-established credit risk management framework. Finally, he recommended that the banks should implement effective tools and techniques to reduce the credit risk and thus will ensure profitability.

Charles, Okaro & Kenneth (2013) examined the impact of credit risk management on capital adequacy and banks’ financial performance in Nigeria. For this purpose, six banks were selected by using a probability sampling technique. Data were obtained from the published financial statements from 2004 to 2009. The panel data model was used to estimate the relationship that exists among Loan Loss Provisions (LLP), Loans and Advances (LA), Non-performing Loans (NPL), Capital Adequacy (CA), and Return on Assets (ROA). The empirical results showed that sound credit risk management and capital adequacy are positively correlated on banks’ financial performance with the exception of loans and advances which was found to have a negative impact on banks’ profitability in the period under study. Based on the findings, they recommended that Nigerian banks should establish appropriate credit risk management strategies by conducting rigorous credit appraisal before loan disbursement and drawdown. They also recommended that adequate attention be paid for Tire-one capital of Nigerian banks.

Vatansever & Hepşen (2013) examined the relationship between the NPLs ratio and several macroeconomic and bank specific factors in Turkey by using ordinary least square estimation approach with integration analysis and the time series from January 2007 to April 2013. They found that industrial production index (IPI), Istanbul Stock Exchange 100 Index (ISE), Inefficiency ratio of all banks (INEF) negatively, and unemployment rate (UR), return on equity (ROE), capital adequacy ratio (CAR) positively affect NPL ratio.

Heydari & Abdoli (2015) focused on the impact of credit risk management and capital adequacy on financial performance of banks in Iran. In this study, they used ROA (Return on Total Assets) as a dependent variable; and Past due credits and loans to total loans and credits (NLP), Loss reserve on total loans and past due credits (LLP), Total loans and credits ratio to total assets (LA), Liquidity ratio (LR), and Capital adequacy ratio (CAR) as independent variables. The study found that there is a negative relationship between loss reserve on loans and previous maturity of credits and banks performance at 5% significant level but on the other hand, the results showed that there is a positive relationship between liquidity ratio and capital adequacy with banks’ performance at 5% significant level.

Ghosh, Islam & Hasan (2014) tried to find out areas which are required to be improved for minimizing...
risks associated with each individual lending in Bangladesh. Here, researchers took a sample size of 25 respondents out of 200 population. To analyze the qualitative and quantitative data, the researcher used SPSS software to conduct a cross-sectional study. In this study, the researcher used credit risk as the dependent variable, and credit monitoring, reliability and assurance factor as independent variables. He found that Credit Risk Management holds a positive relationship with credit monitoring, reliability and assurance factors. He suggested that to achieving financial goals of banks, it is needed to minimize credit risk by considering credit monitoring, reliability, and assurance factor.

Although numerous studies are conducted in the area of credit risk, the study of credit risk management and its influence on financial health of commercial banks in Bangladesh is almost absent. The present study seeks to examine the influence of credit risk management on financial health of commercial banks in Bangladesh. This study is an extension of the study of Ghosh, Islam & Hasan (2014) on the Bangladeshi banking industry. It may contribute to the existing financial literature.

3.0 Objectives of the study

The broad objective of this research work is to find out the influence of credit risk management on financial performance of private commercial banks in Bangladesh. The specific objectives of this research work are to-

(i) investigate the co-integration among the variables regarding credit risk management and financial performance.

(ii) examine whether any long term or short run causality exists between dependent and independent variables.

(iii) find out the impact of credit risk management on financial performance of private commercial banks in Bangladesh.

4.0 Research Questions

The corresponding research questions are as follows:

1. How are NPL, LLP, CAR, ADR and ROA co-integrated?

2. What is the causality between dependent and independent variables?

3. Is there any influence of credit risk management indicators on financial performance?

4. To what extent does credit risk management indicators influence financial performance?

5.0 Methodology of the study

Data have been collected from secondary sources, which are from the annual reports of the selected banks for the period from 2000 to 2018. Six private commercial banks, namely – United Commercial Bank Ltd., City Bank Ltd., IFIC Bank Ltd., Arab-Bangladesh Bank Ltd., National Bank Ltd., and Pubali Bank Ltd. Data on Profitability measurement of the banks as ROA has been collected. Average of all the selected variables has been calculated for the selected banks. This study has been done to measure the impact of credit risk management indicators on return on assets (ROA) by using Time Series analysis and to test the co-integration among the variables using STATA software. VECM or Unrestricted VAR model has been applied for the study variables to check whether there exists any causality between dependent and independent variables.

5.1 Hypothesis of the study:

This research work has been conducted on the basis of null hypotheses to answer the research questions. The null hypotheses are:

H01: Data regarding credit risk management indicators and financial performance indicator are non-stationary.

H02: There exists no long-run or short-run causality between dependent variable and independent variables.

H03: Credit risk management indicators are not influencing on financial performance.

5.2 The Model Specification

A regression model has been developed. The model examines the relationship between credit risk management and financial performance of private commercial banks in Bangladesh. The regression model is as follows:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \]

Where, a = Intercept

\( b_i \) = Regression co-efficient; \( i = 1, 2, 3, 4 \)

Where,
Dependent Variable, $Y = \text{Return on Assets (ROA)}$

Independent Variables,

$X_1 = \text{Non-Performing Loans (NPL)}$

$X_2 = \text{Loan Loss Provision (LLP)}$

$X_3 = \text{Capital Adequacy Ratio (CAR)}$

$X_4 = \text{Advance Deposit Ratio (ADR)}$

5.3 Definition of the Variables

The variable of this study are derived from the earlier studies such as Ghosh, Islam & Hasan, 2014; Heydari & Abdoli, 2015; Charles, Okaro & Kenneth, 2013; Kodithuwakku, 2015; Abdelrahim, 2013; and Bhattarai, 2015; linking the credit risk management, financial performance and some other variables. The operational definitions of selected variables are given below:

(a) **Non-Performing Loans (NPL):** A non-performing loan, or NPL, is a loan that is in default or close to being in default (Wikipedia, 2018). A loan is normally defined as non-performing when customer’s payments are in arrears (Kauko, 2012, p.196). A loan amount on which the borrower is not making interest payments or repaying any principal is called non-performing loan. At what point the loan is classified as non-performing by the bank, and when it becomes bad debt, depends on local regulations (Financial Times, 2018). Late payment is often characterized as non-performing loan (NPLs) rather than a defaulted loan if the borrower is still undertaking business (Choudhry, 2011, p. 131).

(b) **Capital Adequacy Ratio:** Capital adequacy ratio (CAR) is defined as the ratio of capital to the risk-weighted sum of a bank’s assets (Hyun & Rhee, 2011, p. 325). It measures the amount of a bank’s capital relative to the amount of its risk-weighted credit exposures (Basel-III Guidelines, Bangladesh Bank, 2014). Capital adequacy ratio (CAR) is a specialized ratio used by banks to determine the adequacy of their capital keeping in view their risk exposures. Banking regulators require a minimum capital adequacy ratio so as to provide the banks with a cushion to absorb losses before they become insolvent. This improves stability in financial markets and protects deposit-holders (Obaidullah). Capital-based regulation has become a major issue in the banking industry after the financial crisis in 2007 caused by subprime mortgage problems. Losses on mortgages and other mortgage-related securities significantly decrease the capital base of many banks (Hyun & Rhee, 2011, p. 323).

(c) **Loan Loss Provision (LLP):** Bank lending to borrowers often gives rise to credit risk if borrowers are unable to repay the principal/interest on the loan facility due to unfavourable economic conditions and related factors. To mitigate credit risk, in principle, banks will set aside a specific amount as a cushion to absorb expected loss on banks’ loan portfolio and this amount is referred to as loan loss provisions (LLPs) or provisions for bad debts; therefore, loan loss provision estimate is a credit risk management tool used by banks to mitigate expected losses on bank loan portfolio (Ozili & Outa, 2017, p-144). It is calculated as the value of actual provisions maintained as the numerator and the total classified loans as the denominator. The equation of LLPR can be defined as $LLPR = \frac{\text{Actual Provisions}}{\text{Total Classified Loans}}$. The study has been identifying the loan-loss provisions as an indicator of credit risk management indicator based on previous research.

(d) **Advance Deposit Ratio:** The advance-deposit ratio is a useful tool to determine bank liquidity, and by extension, it influences the profitability of the banks (Rengasamy, 2014). Advance to Deposit Ratio (ADR) is determined by putting Advance in the numerator and Liabilities (excluding capital) in the denominator (ALM guideline, BB, 2017). The ratio should be fixed in such a manner so that there will be no unnecessary liquidity pressure on the bank at any point in time. Considering the regulatory liquidity requirements (CRR and SLR), the maximum value of the ratio shall be derived using the formula $[100\%-\text{CRR}^{*}\times\text{SLR}^{*}]$ (ALM guideline, BB, 2017). Depending upon the capital base, liquidity condition, NPL status etc. and above all the maintenance of (LCR) Liquidity Coverage Ratio & Net Stable Funding Ratio (NSFR), the board may decide to add a maximum 4.5% and 2%** (for conventional banks and Shariah-based banks respectively) with the result of the above formula to fix a suitable AD ratio (ALM guideline, BB, 2017).

(e) **Return on Assets:** Return on Assets (ROA) is a ratio that measures bank’s profitability against its total net assets. It is calculated as $\text{ROA} = \frac{\text{EBIT}}{\text{Total Assets}}$. Return on assets gives a sign of the capital strength of the banking industry (Appa, 1996). Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor, or analyst...
an idea as to how efficient a company’s management is at using its assets to generate earnings (Investopedia, 2018).

6.0 Analysis and Findings

6.1 Descriptive Analysis

The descriptive statistics consist of the mean, variance, standard deviation, minimum, maximum, skewness and kurtosis statistics corresponding to each of the variables.

<table>
<thead>
<tr>
<th>Table-1: Descriptive Statistics (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>Return on Assets</td>
</tr>
<tr>
<td>Non-Performing Loans</td>
</tr>
<tr>
<td>Loan Loss Provisions</td>
</tr>
<tr>
<td>Capital Adequacy Ratio</td>
</tr>
<tr>
<td>Advance-Deposit Ratio</td>
</tr>
<tr>
<td>Valid N (list-wise)</td>
</tr>
<tr>
<td>Minimum Statistic</td>
</tr>
<tr>
<td>Maximum Statistic</td>
</tr>
<tr>
<td>Mean Statistic</td>
</tr>
<tr>
<td>Std. Deviation Statistic</td>
</tr>
<tr>
<td>Variance Statistic</td>
</tr>
<tr>
<td>Skewness Statistic</td>
</tr>
<tr>
<td>Kurtosis Statistic</td>
</tr>
<tr>
<td>0.34</td>
</tr>
<tr>
<td>2.88</td>
</tr>
<tr>
<td>1.1911</td>
</tr>
<tr>
<td>0.69988</td>
</tr>
<tr>
<td>0.490</td>
</tr>
<tr>
<td>0.967</td>
</tr>
<tr>
<td>0.469</td>
</tr>
<tr>
<td>3.07</td>
</tr>
<tr>
<td>33.58</td>
</tr>
<tr>
<td>11.1429</td>
</tr>
<tr>
<td>10.20305</td>
</tr>
<tr>
<td>104.102</td>
</tr>
<tr>
<td>1.360</td>
</tr>
<tr>
<td>0.303</td>
</tr>
<tr>
<td>25.49</td>
</tr>
<tr>
<td>84.23</td>
</tr>
<tr>
<td>57.8853</td>
</tr>
<tr>
<td>15.33694</td>
</tr>
<tr>
<td>235.222</td>
</tr>
<tr>
<td>-0.420</td>
</tr>
<tr>
<td>0.691</td>
</tr>
<tr>
<td>8.31</td>
</tr>
<tr>
<td>12.26</td>
</tr>
<tr>
<td>10.6294</td>
</tr>
<tr>
<td>1.25460</td>
</tr>
<tr>
<td>1.574</td>
</tr>
<tr>
<td>-0.502</td>
</tr>
<tr>
<td>-1.081</td>
</tr>
<tr>
<td>74.00</td>
</tr>
<tr>
<td>84.00</td>
</tr>
<tr>
<td>79.6471</td>
</tr>
<tr>
<td>5.618</td>
</tr>
<tr>
<td>-0.703</td>
</tr>
<tr>
<td>1.174</td>
</tr>
</tbody>
</table>

The descriptive analysis revealed that the minimum and maximum values of average return on assets are 0.34% and 2.88% respectively. For average non-performing loans in the table indicated minimum and maximum values of 3.07% and 33.58% respectively. For average loan-loss provision in the table reported minimum and maximum values of 25.49% and 84.23% respectively. For average capital adequacy ratio in the table reported minimum and maximum values of 8.31% and 12.26% respectively. For average advance-deposit ratio in the table reported minimum and maximum values of 74.00% and 84.00% respectively. From the table it was observed that return on assets and non-performing loans are positively skewed, given the corresponding skewness statistics of 0.967, and 1.360 respectively. The table it was also observed that loan-loss provisions, capital adequacy ratio and advance-deposit ratio are negatively skewed, given the corresponding skewness statistics of -0.420, -0.502 and -0.703 respectively.

6.2 Find out the causality between ‘credit risk management indicators’ and ‘return on assets’ of private commercial banks in Bangladesh.

6.2.1 Data stationery test: It is the pre-requisite that the data would be stationery to investigate the causality whether it is short-run or long-run among the dependent and independent variables. For this reason data for further analysis unit root test for each series has been done. Results of the Augmented Dickey-Fuller test and Phillips-Perron Test of unit root have been portrayed below:

<table>
<thead>
<tr>
<th>Table-2: ADF Test Statistics for unit root test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>ROA of PCBs</td>
</tr>
<tr>
<td>NPL of PCBs</td>
</tr>
<tr>
<td>LLP of PCBs</td>
</tr>
<tr>
<td>CAR of PCBs</td>
</tr>
<tr>
<td>ADR of PCBs</td>
</tr>
<tr>
<td>Model-2(Trend &amp; Intercept only)</td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Critical Value at 5%</td>
</tr>
<tr>
<td>P-Value</td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Critical Value at 5%</td>
</tr>
<tr>
<td>P-Value</td>
</tr>
<tr>
<td>At Level</td>
</tr>
<tr>
<td>ROA of PCBs</td>
</tr>
<tr>
<td>-1.433</td>
</tr>
<tr>
<td>-3.600</td>
</tr>
<tr>
<td>0.8508</td>
</tr>
<tr>
<td>NPL of PCBs</td>
</tr>
<tr>
<td>-1.144</td>
</tr>
<tr>
<td>-3.600</td>
</tr>
<tr>
<td>0.9214</td>
</tr>
<tr>
<td>LLP of PCBs</td>
</tr>
<tr>
<td>-1.894</td>
</tr>
<tr>
<td>-3.600</td>
</tr>
<tr>
<td>0.6579</td>
</tr>
<tr>
<td>CAR of PCBs</td>
</tr>
<tr>
<td>-2.367</td>
</tr>
<tr>
<td>-3.600</td>
</tr>
<tr>
<td>0.3975</td>
</tr>
<tr>
<td>ADR of PCBs</td>
</tr>
<tr>
<td>-3.867*</td>
</tr>
<tr>
<td>-3.600</td>
</tr>
<tr>
<td>0.0135</td>
</tr>
<tr>
<td>Remarks</td>
</tr>
</tbody>
</table>
| Stationery at 2nd diff.
| Stationery at 2nd diff.
| Stationery at 1st diff.
| Stationery at 1 st diff. |
| Stationery at level. |
| *At first difference, ** At second difference, *** At Level |

Table-2 shows the results of the ADF test statistic used to check the non-stationary property of the data and to determine how many times the variable needs to be differenced to avoid time effect on data.

After the unit root test by using Dicky Fuller unit root test, it is found that ROA of PCBs has unit root at level. It
means that the ROA of PCBs data is not stationary at level. And after the second difference, it is found that the ROA of PCBs data is stationary. That is, there is no time effect on data.

The variable Non-performing loans of PCBs is also not stationary at level. But after converting into the second difference, it becomes stationary. The variables loan-loss provision of PCBs and advance–deposit ratio of PCBs are not stationary at level. But after converting into the first difference, it becomes stationary. Capital adequacy ratio of PCBs data is stationary at level.

The results in table-2 show that the ADF test rejects the null of non-stationary for ROA, NPL, LLP, CAR, and ADR of PCBs at 5 % level. So all the variables are found stationery at unit root test. It can be concluded that data can be used for testing co-integration among the variables to fit an appropriate model to find out the casualty.

### Table-3: Phillip-Perron Test Statistics for unit root test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model-2(Trend &amp; Intercept only)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At Level</td>
<td></td>
</tr>
<tr>
<td>ROA of SCBs</td>
<td>-1.459</td>
<td>-3.600</td>
</tr>
<tr>
<td>NPL of SCBs</td>
<td>-1.132</td>
<td>-3.600</td>
</tr>
<tr>
<td>LLP of SCBs</td>
<td>-1.646</td>
<td>-3.600</td>
</tr>
<tr>
<td>CAR of SCBs</td>
<td>-2.257</td>
<td>-3.600</td>
</tr>
<tr>
<td>ADR of SCBs</td>
<td>-3.871***</td>
<td>-3.600</td>
</tr>
</tbody>
</table>

*At first difference, ** At second difference, *** At Level

Table-3 shows the results of Phillip-Perron test statistic used to check the non-stationary property of the data and to determine how many times the variable needs to be differenced to avoid time effect on data. After unit root test by using Phillip-Perron test, it is found that ROA of PCBs and NPL of PCBs have unit root at level. It means that ROA of PCBs and NPL of PCBs data are not stationary at level. After the second difference, it is found that the ROA of PCBs and NPL of PCBs data are stationary. That is, there is no time effect on data. The variable Loan Loss Provisions of PCBs is not stationary at level. But after converting into the first difference, it becomes stationary. The variables Capital adequacy ratio of PCBs is not stationary at level. But after converting into the first difference, it becomes stationary. Advance deposit ratio is stationary at level.

The results in table-3 shows that Phillip-Perron test rejects the null of non-stationary for ROA, NPL, LLP, CAR, and ADR of PCBs at 5% level. So all the variables are found stationery at unit root test. It can be concluded that data can be used for testing co-integration among the variables to fit an appropriate model to find out the casualty.

### 6.2.2 Lag selection:

There are various criteria such as LR, FPE, AIC, HQIC, and SBIC to select a maximum number of lag-orders before analyzing the research data. LR, FPE, AIC, HQIC, and SBIC all of these criteria is good and efficient to select appropriate lag order. The general guideline to select the optimum lag order is ‘lower the values of all criteria better the model in all the case’. It is better to take a decision on the basis of the majority must be granted. Actually, the final decision depends on the researcher chose. To introduce VECM model or Unrestricted VAR model to the study, the researcher has use lag 1, applying lag selection criteria on the basis of the values of LR, FPE, AIC, HQIC, and SBIC.

### 6.2.3 Johansen Test of Co-integration:

Before applying the VECM or Unrestricted VAR model, the study has to find out the co-integration level existed among the variables or not.

**The hypothesis for Rank # 0**

- \( H_0 \) : There is no co-integration among the study variables.
- \( H_1 \) : There exists co-integration among the study variables.

From Johansen test for co-integration, we have obtained the following results-
Since the value of Trace statistic value (87.5545) is greater than Critical Value (68.52) for 0 ranks, so we can reject the null hypothesis. That is we can accept the alternative hypothesis that there is co-integration among the variables. It is mentioned that max statistic also gives the same result.
The hypothesis for Rank # 1

\[ H_0 \]: There is one co-integration exists among the study variables.
\[ H_1 \]: There is no one co-integration exists among the study variables.

Since the value of Trace statistic (53.8133) is greater than Critical Value (47.21) for 1 rank, so we can reject the null hypothesis rather we accept the alternative hypothesis. That is why we can accept the alternative hypothesis that there is no one co-integration exists among the variables. That means the model is not one co-integration model.

The hypothesis for Rank # 2

\[ H_0 \]: There is two co-integration exists among the study variables.
\[ H_1 \]: There is no two co-integration exists among the study variables.

Since the value of Trace statistic (32.4353) is greater than Critical Value (29.68) for 2 ranks, so we can reject the null hypothesis rather we accept alternative hypothesis. That is why we can accept the alternative hypothesis that there are no two co-integrations exists among the variables. That means the model is not two co-integration models.

The hypothesis for Rank # 3

\[ H_0 \]: There is three co-integration exists among the study variables.
\[ H_1 \]: There is no three co-integration exists among the study variables.

Since the value of Trace statistic (17.4119) is greater than Critical Value (15.41) for 3 ranks, so we can reject the null hypothesis rather we accept alternative hypothesis. That is why we can accept the alternative hypothesis that there are no three co-integrations exists among the variables. That means the model is not three co-integration models.

The hypothesis for Rank # 4

\[ H_0 \]: There is four co-integration exists among the study variables.
\[ H_1 \]: There is no four co-integration exists among the study variables.

Since the value of Trace statistic (8.1640) is greater than Critical Value (3.76) for 4 ranks, so we can reject the null hypothesis rather we accept alternative hypothesis. That is why we can accept the alternative hypothesis that there are no four co-integrations exists among the variables. That means the model is not four co-integration models.

Meaning that our variables such as return on assets of PCBs, non-performing loans of PCBs, loan-loss provision of PCBs, capital adequacy ratio of PCBs and advance –deposit ratio of PCBs are not co-integrated and they may have no long run associations. In the long-run, they do not move together. They would have short-run associations.

So, we can conclude that no co-integration exists among the study variables. Since there is no co-integration among the variables, we can straightforwardly use the Unrestricted VAR model to find out the causality.

6.2.4 VAR Model:

Since there is no co-integration exists among the study variables, we can use Unrestricted VAR (Vector Auto Regression) Model for the study variables to check whether they have short-run association among the variables or not. By applying Unrestricted VAR model, we have the following results from the analysis.

<table>
<thead>
<tr>
<th>Table-4: Vector Auto Regression Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample: 2001-2018</td>
</tr>
<tr>
<td>Log Likelihood = -112.8592</td>
</tr>
<tr>
<td>FPE = 47.47996</td>
</tr>
<tr>
<td>Det (Sigma_ml) = .9212911</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equation</th>
<th>Parms</th>
<th>RMSE</th>
<th>R-sq</th>
<th>Chi2</th>
<th>P&gt;chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a_roaof pcbs</td>
<td>6</td>
<td>.384109</td>
<td>0.8009</td>
<td>64.35997</td>
<td>0.0000</td>
</tr>
<tr>
<td>a_nplof pcbs</td>
<td>6</td>
<td>2.6412</td>
<td>0.9383</td>
<td>243.3481</td>
<td>0.0000</td>
</tr>
<tr>
<td>a_llpof pcbs</td>
<td>6</td>
<td>8.05223</td>
<td>0.7552</td>
<td>49.3564</td>
<td>0.0000</td>
</tr>
<tr>
<td>a_carof pcbs</td>
<td>6</td>
<td>.650809</td>
<td>0.7985</td>
<td>63.40975</td>
<td>0.0000</td>
</tr>
<tr>
<td>a_adrof pcbs</td>
<td>6</td>
<td>1.32481</td>
<td>0.8061</td>
<td>66.50771</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
It is found that co-efficient which is known as error correction term for our targeted dependent variable is positive (0.9742362) and which is significant (P-value<0.000) at 5% level, so it can be concluded that there is no long term causality of return on assets of PCBs with non-performing loans of PCBs, loan-loss provision of PCBs, capital adequacy ratio of PCBs and advance −deposit ratio of PCBs. But they may have short-run causality among the variables. We have to check now through Granger causality Wald test whether they have a short-run association or not.

Table-5 shows that as a whole chi2 value 23.561 which is significant at 5% level. Here p-value is very small, meaning that they are not equal to zero. Null hypothesis should be rejected. The alternative hypothesis should be accepted, meaning that there is a short-run casualty running from NPL, LLP, CAR and ADRto ROA of PCBs.

Now after analyzing VAR, VAR model is found as follows:

\[
\text{ROA of PCBs} = \beta_0 + \beta_1 \text{NPL} + \beta_2 \text{LLP} + \beta_3 \text{CAR} + \beta_4 \text{ADR} + \epsilon
\]

ROA of PCBs= 11.97031-.03285847NPL -.0261099LLP+ .0048848CAR-.125409ADR+ ε

It is found from the model that the variables LLP of PCBs and ADR of PCBs have a significant impact on ROA in the short–run. And the variables CAR of PCBs and NPL of PCBs have Short–run impact on ROA of PCBs but not statistically significant. As a whole, they have short-run causality among the variables.

From the above analysis by using VAR model and Granger causality Wald test, there is no long-run casualty running from NPL, LLP, CAR, and ADR to ROA of PCBs because of the coefficient of target model is not negative. That’s why, it can be decided that there is short-run causality of return on assets of PCBs with non-performing loans of PCBs, loan-loss provision of PCBs, capital adequacy ratio of PCBs and advance −deposit ratio of PCBs. Meaning that in the short-run they moved together i.e. they have short-run associations. Among the variables, LLP of PCBs and ADR of PCBs have a short-run significant impact on ROA of PCBs but CAR of PCBs and NPL of PCBs have no significant impact.
7.0 Conclusion and Recommendations

This research work has been designed to measure the impact of credit risk management on financial health of private commercial banks in Bangladesh and to test the co-integration among the variables. In the study, it has been found that there exists co-integration among the study variables. In regression analysis, it has also been found that the variables LLP of PCBs and ADR of PCBs have a significant impact on ROA in the short–run. And the variables CAR of PCBs and NPL of PCBs have short–run impact on ROA of PCBs but not statistically significant. It has also been found from time series analysis that there is short run causality between credit risk management indicators and return on assets. The research findings can also contribute to developing new insights and understanding on credit risk management of private commercial banks in Bangladesh. Private commercial banks should follow the prescribed rules, regulations and respective guidelines regarding non-performing loans, loan-loss provisions, capital adequacy ratio and advance-deposit ratio. Private commercial banks sometimes excuse that there is extra burden of rules, regulations and guidelines and some of them they ignore or show-off or window-dressed in their annual reports but they don’t comply. The researcher suggested that the compliance of prescribed rules, regulations and guidance of Bangladesh Bank should be full, not partial, and not window-dressed. (6)

Reference


Socio-economic Factors of Tax Compliance: An Empirical Study of Individual Taxpayers in the Dhaka Zones, Bangladesh

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Abstract

Tax compliance can be affected by many factors such as magnitude of compliance cost, the extent of penalty, perceived fairness of the tax system, awareness level of taxpayers and perceptions of government spending. The purpose of the study is identifying factors that affect compliance of individual income taxpayers in Bangladesh. The target population of the study is individual income taxpayers of the fifteen zones of Dhaka. The sample size is determined to 385 self-assessment assessee and 376 general procedure return submitted income taxpayers to which the questionnaire was distributed during the period of 1st December 2019 to 15th February, 2020. The results of the ordered logistic regression model reveal that the fairness, tax penalty and relationship with regard to taxpayer’s perception of government spending have positive and significant relationships with compliance. It also examines the effects of compliance decisions of referrals on others compliance decisions. The findings show a negative but insignificant relationship between them which implies that individual income taxpayer’s make their compliance decisions independent of others’ decisions. Finally, the study having evaluated the effect of cost of complying with the tax law on tax compliance and concluded that there is a negative relationship between them implying that higher cost of compliance will lead to lower levels of compliance. Therefore, this paper suggests that maintaining tax fairness, optimum levels of penalty, spending the tax revenue on public development projects, keeping tax rates to the minimum as much as possible and keeping compliance costs to the minimum can enhance the compliance of taxpayers.

Keywords: Taxation, Compliance, Socioeconomic, Fairness, Tax Penalty, Tax Rate, Awareness.
1.0 Introduction

Tax is a mandatory charge imposed by the government without any expectation of quid pro quo. In other words, tax is a compulsory payment by the people to the government for which there is no direct return to the taxpayers (Parameswaran 2005). Governments impose taxes for a multiple of purposes, but the major is to raise funds in order to cover public expenditures and on the other hand to properly allocate resources. Tax is the main source of revenue for the government (Beza 2014).

There are currently two methods of filing income tax returns in Bangladesh, the first being the general method and the second being the universal self-assessment method. In the case of filing of returns in the manner of universal self-assessment, the taxpayer determines his own income and pays the applicable income tax. A certain class of taxpayer has to file a return within a specified period of each financial year by paying the total tax and charges levied on the total income. If the return is submitted under the universal self-assessment system after fulfilling all the conditions, the acknowledgment of receipt issued to the taxpayer by the Income Tax Department is considered as a tax assessment order. However, the tax assessment officer later processed the return in order to identify errors in certain cases. If as a result of processing the return it is found that the taxpayer has paid less or more income tax and other applicable amounts than the amount payable, then the tax assessment officer informs the taxpayer and takes action in this regard.

In the case of returns filed under the general procedure, the acknowledgment of receipt is not considered as a tax assessment order. After filing the return, the tax assessment officer determines the tax. If the information shown by the taxpayer in the return seems to be correct to the tax assessment officer, he can assess the tax without calling the taxpayer for hearing. Again, if there is not enough information and evidence to support the income shown or if the tax assessing officer deems it necessary, the taxpayer may request the taxpayer to attend the hearing and assess the tax based on the taxpayer’s statement, information and evidence. It is to be noted that in case of concealment of income or tax evasion in any return even though it is not under audit, necessary legal action can be taken in case of return of the concerned tax year as per Section 93 of the Income Tax Ordinance, 1984. At the same time the return can be processed. According to the tax lost ranking, Bangladesh ranked 65 in the world and 18 in Asia (Murphy 2011). National Board of Revenue (NBR 2018) reported that the targeted income tax and travel tax was BDT (Bangladeshi Taka) 251.94 billion and the NBR collected BDT 206.4596 billion. Gap between targeted and collected income tax revenue was BDT 45.4804 billion up to November 2017. There must be factors other than tax morale that influence tax compliance of the people. There is a long run cointegrated relationship between budget deficit and public debt in Bangladesh (Saima & Uddin 2017). If this deficit persists for long, the economy of the country will face constraints in the development path (Sarkar et al 2015). To reduce the deficit, the government can either increase the income tax rate or increase the participation to submit tax returns. However, what will be the focus of the policy is ambiguous. Therefore, it is important to identify the influential factors of income tax compliance.

Developing countries faces vaults in raising revenue to the required level in order to scale up the development endeavors (Tadesse & Goitom 2014). Bangladesh has experienced a steadfast expenditure surplus over revenue for a long period of time. Tax noncompliance is socially harmful, as it can reduce revenue, distort labor market and weaken state stability by enriching perception of cheating and fraud. Reducing noncompliance can be effective if the reason for noncompliance by tax payers is known. Understanding the motivations underlying taxpayers’ attitudes and behaviors toward voluntary compliance is valuable to the tax authority by providing them information that can help them which strategy is appropriate and effective to increase compliance (Amina & Saniya 2015).

1.1 Problem Statement

The issue of tax compliance has gained more stress by researchers in the recent couple of decades because of increasing levels of tax noncompliance and its consequence on the capacity of the government to raise revenue. Taxpayer non-compliance is a continual and growing worldwide issue that is not readily addressed, especially in most developing countries, the domestic tax bases are undermined by widespread tax avoidance and evasion (IMF 2011; McKerchar & Evans 2009). Usually, the fastest growing economies with a highly authoritative tax authority has failed to finance
its activities by its own means due to non-compliance even after a series of tax system reforms (Samuel & Vismanadham 2013). Moreover, tax evasion and avoidance are problems faced by every tax system and that taxpayers exploit loopholes of tax provisions to minimize or escape tax liability (Abreha & Kahase 2014).

Tax compliance can be affected by many factors such as magnitude of compliance cost, the extent of penalty, perceived fairness of the tax system, awareness level of taxpayers and perceptions of government spending (Olamide & Segun 2018). A recent study revealed that perception on equity and fairness of the tax system, perception on government spending, changes on current government policies, penalties, personal financial constraint, and referral group are factors that significantly affect tax compliance (Tilahun & Yidersal 2014). In regards to the issue of tax non-compliance requires at least some understanding of the factors that are fundamental to the individual taxpayer’s decision whether to comply or not with tax laws. In fact, factors which influence tax compliance are different from country to country and also from individual to individual (Kirchler 2008). Due to this, tax compliance has been given a large emphasis by researchers because of increasing non-compliance especially tax evasion and its consequences on the capacity of government in raising public revenue while most of the previous studies are done in developed countries. Tax compliance researches in developing countries are low in number. Therefore the purpose of the study is identifying factors that affect compliance of individual income taxpayers in the specific zones in Bangladesh.

1.2 Research Objectives
The fundamental objective of the study is to identify the factors affecting taxpayers compliance in Dhaka self-assessment income taxpayers. Specifically, to examine the relationship between economic factors and compliance of taxpayers.

2.0 Literature Review
Tax compliance has been defined as compliance with reporting requirements, meaning that the taxpayer files all required tax returns at the proper time and that the returns accurately report tax liability in accordance with the internal revenue code, regulations and court decisions applicable at the time the return is filed (Roth et al 1989). An alternative definition has been offered by James and Alley that considers tax compliance in terms of the tax gap (Tadesse & Goitom 2014). This is the difference between true individual income tax liability and that finally collected on a voluntary basis or by enforcement action. Generally, compliance can be understood as acting in accordance with the law and noncompliance is deviation from the law. Based on the above expressions the definition of tax compliance can be shortly refined as the desire or willingness of the taxpayers to act in accordance with the tax law and the voluntary effort they exercise to pay their tax liability on a timely basis.

2.1 Theories Relating to Tax Compliance
Tax compliance has been developed by various scholars to show how various conditions enhance the level of tax compliance. Such as, optimal tax theory is that the government likes to collect a given amount through taxation. Emanuele (2012) illustrates that this theory includes several models that concentrate on the characteristic of a tax system. Further, these models aim to achieve an equilibrium level of taxes raised by the government to achieve their revenue targets. In addition to that, these models are formulated to meet certain principles of the good tax system such as equity, stability, flexibility and transparency (Emanuele 2012). Political legitimacy theory illustrates that tax compliance is largely influenced by the extent to which their citizens trust their government (Tyler 2006; Kirchler 2008). Further, according to Persson (2008) emphasized that building national identity is more successful than they become major opponents of politics.

The tax moral theory indicates tax morale which is an individual factor that motivates a person to comply with his or her tax obligations. Many studies have found out that tax evasion can be attributed to tax morale (Mocetti & Barone 2008). This theory further stated that taxpayers are more likely to comply with tax obligations if their friends, relatives and acquaintances comply with these obligations. Also, taxpayers will evade taxes if they feel that other people are getting away with tax evasion. That means if a society concentrates on tax evasion, such a society would encourage tax evasion (Waweru 2004).
Theory of planned behavior is an important theory that presents within the scope of social psychology and tries to explain human behaviors. This theory was developed by Ajzen and Fishbein (1991) and it is just the improved form of the Theory of reasoned action suggested by them to explain conscious behaviors. According to this theory, behaviors of the individuals within the society are under the influence of several factors, originate from certain reasons and emerge in a planned way (Benk et al 2002). Nevertheless, the ability to perform a particular behavior depends on the fact that the individual has a purpose towards that behavior.

Fiscal exchange theory illustrates that the government can enhance the level of tax compliance by providing goods and services to its people more efficiently and effectively (Moore 2004). Further, which also provides a good link between the taxpayers and the government (Moore 2004). Therefore, it is more justifiable to assume that taxpayers’ behavior is influenced by either their level of satisfaction or level of dissatisfaction with the provision of public goods and the services. The Allingham and Sandmo theory expresses that the government tries to prevent tax evasion through undertaking a series of actions such as putting extra penalties, undertaking tax audits etc (Kirchler 2008). A taxpayer will decide to evade his or her tax obligations when he or she feels that the cost of evading tax is too low. Taxpayers would also evade tax when he or she feels that the cost of compliance is high.

Economic deterrence theory states that taxpayers’ behavior is influenced by a range of factors such as tax rate, penalties etc. According to (Becker 1968) which implies that when the strength of the tax audits and the penalties are high then, very few people will try to avoid taxes. On the other hand, when the strength of the tax audits are less and the penalties are low then, expected to evade the taxes is very high. Further, this theory is highly adopted by tax administrators when developing suitable strategies. The theory of crime states that people are rational actors who behave in a manner that will maximize their expected utility. (Becker et al 1968) argued that authorities needed to and appropriately balances between detection of non-compliers and measures to the point where non-compliance becomes irrational In fact, research has shown that the use of threat and legal coercion, can produce negative behavior; these actions are more likely to result in further non-compliance (Murphy & Harris 2007), creative compliance (McBarnet 2003), criminal behavior or opposition (Fehr & Rokenbach 2003).

2.2 Empirical Evidence on Relationships between Tax Compliance and Other Variables

Perceptions of Government Spending
The problem of tax compliance is as old as taxes themselves. Characterizing and explaining the observed patterns of tax noncompliance and ultimately finding ways to lessen it are of obvious importance to countries (Andreoni et al 1998). Very few studies have been done on the effect of government spending on compliance behavior of taxpayers (Palil 2010). Taxpayers, and especially those who pay high amounts of tax, will be sensitive to what the government spends their money on (Tadesse & Goitom 2014). Since taxpayer’s perceptions are important in determining their compliance behavior, the government should spend tax revenue in a careful manner, because the spending pattern of the government causes different levels of compliance (Palil 2010). There is a positive and significant relationship between perceptions of government spending and tax compliance (Niway & Wondwossen 2015).

Tax Penalty
The tax rate and penalty structure determine the financial value of tax compliance, which leads to the taxpayers’ compliance behaviors. In addition to that, taxpayers judge the cost that occurs when remaining as a defaulter, penalties occurred for fraud and benefits of not paying taxes, and determine not to pay taxes if the benefit of non-compliance exceeds the costs (Sapiei & Kasipillai (2013; Walsh 2012). If a taxpayer is required to file an income or excise tax return and fails to timely do so, a late filing penalty may be assessed (Oladipupo & Obazee 2015). Lederman (2003) argues that penalizing tax evaders can cause others to feel sure that they are doing the right thing. In addition, Park and Hyun (2003) in their study found that penalizing taxpayers when caught encouraged taxpayers to report the true income they earn. This result shows a positive relationship between penalty and tax compliance.

Compliance Cost
There is a wide perception by the taxpayer that tax is a burden especially the small and medium enterprises (Vihanto 2000). Therefore, the cost of compliance
to taxation plays a key role in determining taxpayers willing to pay tax. Tax compliance cost investigations can provide useful feedback on how to reduce compliance costs and risks for small businesses. Surveys conducted in countries like South Africa, the Republic of Yemen, Ukraine, and Peru that measured the burdens on business which helped fine-tune the design of reforms to lower costs for businesses and improve their competitiveness (Coolidge 2010). High compliance costs can result in tax avoidance, tax fraud, and prevent investment coming into the country by way of diminishing competitiveness of the country in terms of taxation attractiveness (Atawodi & Ojeka 2012). According to Eragbhe and Modugu (2015), they have surveyed to evaluate the cost of tax compliance in Nigeria, but ultimately they found that the cost of tax compliance comprises internal compliance cost, external compliance cost and several incidental costs including psychological cost. In a study carried out on tax compliance and simplifications by (OECD 2014) established that compliance costs tend to increase with the number of taxes that an entrepreneur is subject to, the complexity of the tax rules, the frequency of submitting tax returns and the number of levels of government involved in levying and collecting taxes.

**Tax Rate**

Even though the effect of tax rate on tax compliance is still unclear and questionable, Clotfelter (1983) stated that cutting tax rates is not the mere way of reducing tax evasion, while Kirchler (2008) views tax rate as an important factor that determines compliance decisions. An increase in tax rates will discourage tax compliance while reducing tax rate doesn’t reduce tax evasion (Torgler 2007). The relationship between tax compliance and tax rates and concluded that taxpayer’s decision either to comply or not, regardless of tax rates (Kirchler 2008). However, tax rates were negatively correlated with tax compliance (Ajzen & Fishbein 1980) while in line with this Palil (2010) concluded that higher tax rate would lead to lower compliance. The study revealed that the tax rate has a positive and significant influence on income tax compliance (Ali 2018). Moreover, it also revealed that the rate of tax penalties has a positive effect on tax compliance behavior (Yunus et al 2017). In addition, Masud et al (2014) found that there is a significant negative correlation between tax rate and tax compliance.

**Fairness of the Tax System**

Tax fairness is a concept of having an equitable tax system. Fairness of the tax system is believed by the taxpayers and tax authority as one of the significant determinants of compliance decisions (Amina & Saniya 2015). There are mixed results on the impact of fairness on tax compliance. For instance, perceived inequity in the tax system does not contribute to tax evasion, but it is used to rationalize non-compliant behavior (IMF 2011). If the taxpayers feel that their tax burden is higher than other people within the same income group; their tax compliance probably decreases (Warneryd & Walerud 1982).

Individual taxpayers do not live alone in this world and they have to interact with others in their daily life. Thus, the influence of one person on another in their compliance is an important part of their continuous existence in society. Perception of peers not to comply with the tax laws resulted in the taxpayers’ non-compliance action (Hai & See 2011). Decisions to comply or not are sometimes influenced by family members, relatives and friends (Ajzen & Fishbein 1980). A Behavioral research states that peer groups have a strong impact on behavior, preferences and personal values of the individual person (Puspitasari & Meiranto 2014). However, another study found that there is no significant correlation between taxpayer non-compliance and knowing non-compliant peers (Green 2003).

**2.3 Research Ethics**

The study asked for full consent from participants where we explained the motivation of study to the participated assesses. They had the freedom to leave the study at any time or may remain silent to specific questions if they were not comfortable. User data was anonymized. All our collected data are securely stored in a locked drive, and only researchers have access to it.

**3.0 Research Methodology**

This study is a cross sectional design with quantitative approach. The actual revenue collection target for the financial year 2017-2018 was set at BDT 87,190 crore and BDT 62,340.42 crore was collected, of which 44.51% was in fifteen zones of Dhaka and it has reached a total of 73.22% when the large taxpayers and the
central survey zone were combined (NBR 2018). On the one hand, as Dhaka is the capital of Bangladesh, on the other hand, the highest rate of revenue collection in the country is within this jurisdiction, thus, these tax zones have been considered for this study. The target population of the study is individual income taxpayers of the fifteen zones of Dhaka. According to the National Board of Revenue authority of Dhaka administration, the total individual taxpayers 740,925 where self-assessment assesse 724,063 and general assesse 16, 862 were submitted annual return during the financial year 2017-2018 (NBR 2018). This study selects these categories because they are required by law to maintain and submit books of accounts to the tax authority within the stipulated time. The sample is selected by following the method of proportional allocation under which the sizes of the samples from the different strata are kept proportional to the sizes of the strata. For the purpose of the study sample size is determined by using formula (Krejcie & Morgan 1970):

\[
s = \frac{X^2 NP(1-P)}{d^2 (N-1)} + X^2 P(1-P)
\]

Where

\[
s = \text{required sample size}
\]

\[
X^2 = \text{the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)}
\]

\[
N = \text{the population size}
\]

\[
P = \text{the population proportion (assumed to be 0.50 since this would provide the maximum sample size)}
\]

\[
d = \text{the degree of accuracy expressed as a proportion (0.50)}
\]

Therefore sample size is determined to 385 universal self-assessment return submitted taxpayers and general procedure return submitted 376 to which the questionnaire was distributed. This study has followed a convenience sampling method. This sampling method has also been conducted in the context of Malaysia (Ser 2013), the USA and Hong Kong (Chan et al 2000). Convenience sampling method has the advantage over reliability, time and budget constraint. The sample is allocated to each zone according to the population weight. The study has used primary data collected by using structured questionnaires. The survey was conducted during the period of 1st December 2019 to 15th February, 2020. The questionnaire is composed of closed ended questions designed on mostly a Likert scale. Questionnaires were delivered to people of various income levels. Questions were pre-coded during the survey questionnaire, data processing and analysis. The quantitative data were subsequently entered into STATA for analysis.

### 3.1 Model Application

Sometimes response categories are ordered but do not form an interval scale. There is a clear ranking among the categories, but the difference among adjacent categories cannot be treated as the same. Responses like these with ordered categories cannot be easily modeled with classical regression. Ordinary linear regression is inappropriate because of the non-interval nature of the dependent variable-the spacing of the outcome choices cannot be assumed to be uniform. Ordinal logit and probit models have been widely used for analyzing such data (Green 2003). Some polychotomous dependent variables are inherently ordered. Although the outcome is discrete, the multinomial logit or probit models would fail to account for the ordinal nature of the dependent variable (Green 2003). The ordered probit and logit models have come into fairly wide use as a frame-work for analyzing such responses. Because of its mathematical convenience and interpretation simplicity the researchers have employed an ordered logit model. Therefore, the model for the determinants of tax compliance of self-assessment income taxpayers is:

\[
TxCom = f (Tr, ComCst, FTxs, Plty, Pgs, Eref, e)
\]

Where:

\[
TxCom = \text{Tax compliance for ordered Likert Scale}
\]

\[
Tr = \text{Tax rate}
\]

\[
ComCst = \text{Compliance cost}
\]

\[
FTxs = \text{Fairness of the tax system}
\]

\[
Plty = \text{Penalty}
\]

\[
Pgs = \text{Perceptions of Government spending}
\]

\[
Eref = \text{Effect of referrals}
\]

\[
e = \text{Classical random error term}
\]

Thus, the regression equation is shown as follow:

\[
TxCom = a_0 + a_1 Tr + a_2 ComCst + a_3 FTxs + a_4 Plty + a_5 Pgs + a_6 Eref + e
\]

### 4.0 Results and Discussions

Table 1.1 presents descriptive statistics of respondents. In total, 761 respondents filled in the questionnaire completely. Standard deviation of the age of respondents was 84.82. The respondents were aged between 41 to 50 (35.22%), followed by 31 to
40 (25.22 %), 51–60 (13.27 %), 21 to 30 (10.11 %), 61 to 70 (9.07 %) and 71–80 (7.10 %). Among the respondents, male were 83.84 % and female 16.16 %. Almost half of the respondents (49.41 %) were completed graduate level studies, followed by higher secondary level (34.30 %), secondary level (10.25 %) and 4.47 % completed post-graduation, while 2.26 % had no formal education. Majority (55.32 %) respondents were engaged in business, followed by private service (14.85 %), self-employed (9.72 %) and public service (2.90 %). Around one-third (29.30 %) of the total respondents had yearly taxable income in between BDT 2,50,000 to BDT 4,00,000 followed by 27.20 %, 26.54 %, 13.27 % and 3.68 % of respondents whose income were in between respectively BDT 5,00,001 to 6,00,000, BDT 4,00,001 to 5,00,000, BDT 6,00,001 to 30,00,000 and BDT 30,00,000 and above.

The researchers evaluated the findings based on the two key statistical tools, which are the correlation matrix (Table 1.2) and the ordered logit model regression analysis (Table 1.3) and then analyze the results to establish the links between the tax compliance and the other independent variables.

**Table 1.2: Results of the Analysis Based on the Relationships between Tax Compliance and the Independent Variables**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Results Based on the Correlation Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penalty</td>
<td>Reveals that the Coefficient for penalty was 0.012, which mean r value is less than 0.3 therefore, there is a lower level of positive correlation exist between the level of tax compliance and the penalty.</td>
</tr>
<tr>
<td>Perceptions of Government spending</td>
<td>Findings reveal that the Coefficient for perceptions of Government spending was 0.280, which means the r value is less than 0.3 therefore, there is a lower level of the positive correlation between the level of tax compliance and the Perceptions of Government spending.</td>
</tr>
<tr>
<td>Compliance cost</td>
<td>Found that the coefficient for Compliance cost was -.161, hence there is a negative correlation exist between the level of tax compliance and the Compliance cost.</td>
</tr>
<tr>
<td>Effect of referrals</td>
<td>The result reveal that the coefficient for effect of referrals was -.152, hence there is a negative correlation exist between the level of tax compliance and the effect of referrals.</td>
</tr>
<tr>
<td>Tax rate</td>
<td>Found that the coefficient for the tax rate was -.010, therefore there is a negative correlation occur between the level of tax compliance and the tax rate.</td>
</tr>
</tbody>
</table>

In below Table 1.3 provides a great emphasis to the ordered logit model regression results. Since the equation in an ordered logit model is non-linear, only the signs of the coefficients can be interpreted. This study found that fairness and compliance have positive and significant relationships. This relation is towards the research objectives.
In addition, this paper also found that there is a positive and significant relationship between penalty and tax compliance. This relationship between penalty and tax compliance is also towards the research objectives that severe penalties used to achieve greater compliance level and curbs future actions of tax evaders. This finding is also consistent with others, for instance, Witte and Woodbury (1985) have established a significant relationship between the severity of criminal sanctions and tax compliance and Chau and Leung (2009) indicated that tax penalty is an important factor influencing tax compliance behavior who suggested that the fear of penalties would prohibit the noncompliance tendency.

This study finds a positive and significant relationship with regard to taxpayer’s perception of government spending and tax compliance. This result suggests that, if the government is spending the national revenue wisely for basic facilities, such as public health, education, security and public transportation, it is assumed that voluntary compliance of taxpayers will increase. In contrast, if taxpayers perceive that the government is involved in corruption and spending too much on unnecessary budgets; taxpayers may feel cheated and attempt to evade. This result is also similar to the findings of (Amina & Saniya 2015; Niway & Wondwossen 2015; Tilahun & Yidersal 2014; Palil 2010; Kirchler 2008). However, Tadesse & Goitom (2014) found insignificant correlation between tax compliance and taxpayer’s perception of government spending.

The result of the regression shows a statistically significant negative relationship between tax compliance and cost of complying. This finding is consistent with the finding of Mogenti (2014) who concludes that compliance cost is a contributory factor on tax compliance, specifically lower compliance cost is associated with high levels of tax compliance. In addition, Ketema (2013) found that compliance of taxpayers is dominantly affected by high compliance costs in terms of financial and time compliance costs.

Furthermore, the study found a negative and statistically insignificant relationship with regard to the effect of referrals. This explores that taxpayers did not consider the issue of the effect of referent groups to be of essence in making their tax compliance decisions. This finding is also consistent with the finding of Inasius (2015) while this result contradicts previous results shown by (Clotfelter 1983; Palil 2010).

Finally, the study found that the tax rate has had a negative and significant impact on tax compliance. This result is towards the research objective and indicates that tax systems with low tax rates are most likely to be complied. However, in this regards, there are mixed outcomes found, such as, evidences show that high tax rate is positively related with noncompliance and negatively related with tax compliance (Ali et al 2001; Christian & Gupta 1993; Feinstein 1991) and Lemessa (2005) found that tax non-compliance is positively correlated with high tax rates. On the other hand Modugu et al (2012) found that tax rates do not have either negative or positive impact on tax compliance.
5.0 Conclusion and Recommendations

The results of the ordered logistic regression model reveal a statistical relationship between tax compliance and some of the factors that are considered in the study. The study found a positive and significant relationship between tax compliance and fairness of the tax system. This indicates that making the tax system fair leads to higher levels of tax compliance behavior of the taxpayers. This paper also examines the relationship between tax compliance and perceptions of government spending and shows a positive significant relationship which implies that taxpayers’ perception of government spending as good will boost their decision to comply with the tax laws of the country. Evaluation of the effects of awareness level of taxpayers on tax compliance levels reveal that there is a statistically insignificant relationship between them. It also examines the effects of compliance decisions of referrals on others compliance decisions. The findings show a negative but insignificant relationship between them which implies that self-assessment income taxpayers make their compliance decision independent of others’ decisions. The effect of organizational strength of the tax authority on tax compliance behavior is also examined in this paper. It shows a positive and significant relation between the two implying that effectiveness and strength of the tax authority in awareness creation, service delivery, tax collection and enforcing tax laws will in turn enhance compliance level of taxpayers. Finally, the study has evaluated the effect of cost of complying with the tax law on tax compliance and concluded that there is a negative relationship between them implying that higher cost of compliance will lead to lower levels of compliance. This study illustrates different views held by various scholars in connection with tax compliance and its relationships with other variables with the aim of gaining new knowledge as well as broaden the knowledge base on this particular subject area, which is important for any future researchers to identify the different concepts and their relative importance to the present context in Bangladesh. Therefore, the conceptual frameworks brought from this paper will set a new direction for future research that will help to understand the significances of these conceptual ideas. If it makes sense in the future studies, then these concepts will apply to different practical situations in Bangladesh as well as internationally.

Based on the findings in order to make the taxpayers more compliant to the tax system, the following measures should be taken by the tax authority:

From the study finding it can be inferred that a perception of government spending has a substantial effect on tax compliance. The finding suggests that perception of government spending as good and important will increase the compliance level of taxpayers. Therefore, the spending of tax revenue by the government should be on social and important projects and information should be forwarded to taxpayers to create a positive image on the spending pattern of the government.

The study finds strong support for the argument that penalty highly affects tax compliance, thus there should be moderate and appropriate levels of penalties to be employed. These way owners of businesses will be encouraged to comply since they will act in accordance with the tax laws in order to avoid penalties.

From the study findings it is deduced that fairness or equity of the tax system has a significant effect on tax compliance. The findings suggest that tax systems that are fair are most likely to be complied. Therefore, the tax system should not be in a way that does not encourage taxpayers to evade.

Finally, Tax compliance will be developed just with the voluntary cooperation of the society with the tax authority. Simply relying only on carrot and stick approach has no sweeping result. Hence, the government and the tax authority have to capitalize on responsible citizens’ approach in their effect of increasing the level voluntary compliance. Tax evasion and non-compliance is unavoidable in each general public or country. Therefore, it is worthwhile to recommend that the above approach has to be supported by legal enforcement and the effects must complement each other.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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QUESTIONNAIRE

Surveyor ID:                                        Participation number:                                        Date:

Assessment type: General Self-assessment

SL Description

1. Gender Male Female
2. Age
3. Marital status Single Married Divorced Widowed
4. What was the last grade of school you completed? Primary level SSCHSC Graduation level Post-graduation level
5. Could you please describe your profession? Professional Business Private service Public service Self-employed
6. Please tell me for the following statement whether you think it can always be justified, never be justified, or something in between: Cheating on tax if you have the chance
7. Trading or exchanging goods or services with a friend or neighbor and not reporting it on your tax form
8. Reporting your main income fully, but not including some small outside income
9. Being paid in cash for a job and then not reporting it on your tax form
10. Not reporting some earnings from investments or interest that the government would not be able to find out about
11. Do you feel it is wrong or not wrong if a taxpayer does not report all of his or her income in order to pay less income taxes?
12. Within the past five years or so, do you think you might have left some reportable income off your federal tax return – even, just a minor amount?
13. What was the highest tax rate level for the last financial year?
14. Could you tell me how much confidence you have in the legal system?
15. Public officials can usually be trusted to do what’s right!
16. Could you tell me how much confidence you have in the government in your capital?
17. How much confidence do you have in courts system?
18. Could you tell me how much confidence you have in the legal system?
19. Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?

Most people can be trusted

Can’t be too careful

20. Would you say that having a democratic political system is a very good?

Fairly good

Very bad

Way of governing

21. Democracy may have problems but it’s better than any other form of government?

Strongly agree

Mildly disagree

Strongly disagree

22. How satisfied are you with the way the people now in national office are handling the country’s affairs?

Fully satisfied

Fairly satisfied

Fairly dissatisfied

Very dissatisfied

23. Would you please put mark the political system as it is today?

Very good

Fairly good

Fairly bad

Very bad

24. How satisfied are you with the financial situation of your household?

Fully satisfied

Fairly satisfied

Fairly dissatisfied

Very dissatisfied

25. Could you tell me if recently you have known someone or have heard someone you know comment about somebody who has: Managed to avoid paying all his tax

YES

NO

26. Would you say that a person in our country who has committed an illegal act gets caught?

It is very possible

Fairly possible

Not at all possible

27. Could you please rank the NBR in regards to the processing returns?

Excellent

pretty good

only fair

poor

28. Could you please rank the NBR in regards to the issuing refunds?

Excellent

pretty good

only fair

poor

29. Could you please rank the NBR in regards to the answering questions?

Excellent

pretty good

only fair

poor

30. Could you please rank the NBR in regards to the auditing returns?

Excellent

pretty good

only fair

poor

31. Could you please rank the NBR in regards to the collecting taxes due?

Excellent

pretty good

only fair

poor

32. The NBR employees are honest – you could never bribe them.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

33. NBR employees are just as knowledgeable as any private tax expert.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

34. I am confident that the NBR would never try to take more money from me than they should.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

35. You can depend on the IRS to keep accurate tax records.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

36. NBR procedures and practices are fair and reasonable ones that respect the rights of taxpayers.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

37. How do you feel about the government income tax system as it applies to the tax return – do you feel it is:

quite fair

reasonably fair

somewhat unfair

quite unfair

38. The present tax system benefits the rich and is unfair to the ordinary working man or woman.

Strongly agree

Mildly agree

Mildly disagree

Strongly disagree

39. Do you ever talk about NBR and its activities with your family?

YES

NO

40. Do you ever talk about NBR and its activities with your friends and co-workers?

YES

NO

41. What is the minimum fine for tax evasion in your jurisdiction?

YES

NO

42. What is the maximum fine for tax evasion in your jurisdiction?

YES

NO

43. Do you apply the criminal code in the case of tax fraud?

YES

NO

44. Is there a monetary fine in the case of tax fraud?

YES

NO

45. Do you treat tax fraud in the same way as tax evasion?

YES

NO

46. How much attention did you pay to discussions on the media about NBR and its activities?

A lot

Quite a bit

Some

Very little

No attention

47. How proud are you to be a taxpayer?

Not at all proud

Not very proud

Quite proud

Very proud

48. May I know your

annual level of taxable income

BDT 2,50,000-4,00,000

BDT 4,00,001-5,00,000

BDT 5,00,001-6,00,000

BDT 6,00,001-7,00,000

BDT 30,00,000 and above

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Income Visibility and Tax Compliance: Bangladesh Perspective

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Abstract
Like many other developing and transition economies, the income tax net of Bangladesh remains very narrow. Less than one percent of the total population has been registered as taxpayers. The income tax administration in Bangladesh is struggling to expand the tax net but with little success. Reasons of such poor tax net remain manifold. Poor tax culture, strong informal economy, legal weakness and many others contribute to such poor tax net. The article argues that one way of tax net expansion can be making the income of the taxpayers visible. Income visibility plays a vital role in ensuring tax compliance. Empirical evidences suggest that in countries like the USA and other countries income or financial transactions of the taxpayers become visible as a result of the third-party information reporting (TPIR). Given the poor state of tax net in Bangladesh, the Bangladesh tax administration should think of the ways and means to make visible the income of the taxpayers. Once the income is visible and that is known to the taxpayer then she would not be encouraged to evade tax.

Keywords: Tax Compliance, Third Party Information Reporting(TPIR), Income Visibility, Developing countries, Bangladesh.

1.0 Introduction
To collect the requisite amount of tax revenue, a country must have a robust tax compliance culture. But in Bangladesh, tax compliance picture is very bleak. The income tax administration is characterized by narrow tax base, incapacity of taxing digital economy, low tax GDP ratio, prevalence of informal economy, insufficient third-party information reporting regime, weak tax law enforcement, poor tax culture (Ahmed,2019). Tax revenue mobilization in Bangladesh has not been proportional to its rapid economic growth. In Bangladesh, income tax evasion is often considered high, which undermines equality of income and development growth. Government expenditure on public infrastructure and projects in many parts of the developing world is facing bottlenecks and disruptions due to lack of funding. One reason of poor tax revenue mobilization can be attributed to the poor
visibility of taxpayer income. With less than one percent of the country’s population declaring income tax, a major source of potential government revenue is being forgone, and poor tax infrastructure is making it difficult to enforce greater compliance.

It is however, true that in most of the cases, unless taxpayers are forced, they do not want to pay taxes. Rai (2004) states, “By and large, taxpayers of all countries do not want to pay taxes unless compelled by a situation where they are left with no option other than to pay the taxes. Therefore, for better tax compliance, a system should be designed that automatically extracts taxes rather than leaves the payment of taxes to the voluntary choice and morality of taxpayers. Penal provisions making tax evasion a costly affair should supplement this automatic extraction of taxes.”

According to the traditional economic deterrence theory of tax compliance, taxpayers are encouraged to evade taxes if the probability of getting caught and punished is a less likely chance and the evasion surpasses the punishment. Tax evasion remains a rational choice for the taxpayers depending on the factors of profitability through tax non-compliance (Becker, 1968; Allingham and Sandmo, 1972; Srinivasan, 1973; Gertrer and Picker 1994; Katz 1998; Posner 1998). There are other social and psychological theories of tax compliance that put emphasis not on deterrence and punishment, but on social and psychological factors like social norms, tax morale, tax system fairness perception, tax knowledge, psychological contract between the taxpayers and the government, patriotism, guilt, and shame that shape tax compliance behavior (Alm 2012; Alm, Kirchler and Muehlbacher 2012; Braithwaite and Wenzel 2008; Hofmann, Hoezl and Kirchler 2008; Kirchler 2007; Kirchler et al. 2010; Meder, Simonovits and Vincze 2012; Torgler 2007, 2008, Feld and Frey, 2006; Andreoni, Erard, and Feinstein, 1998). The different approaches and theories of tax compliance have been mentioned in a chart by Schmutz (2016). The chart is presented below for a quick look of the different determinants of tax compliance.

**Academic Disciplines, Research Approaches and Possible Determinants of Tax Non-Compliance**

While the tax administration should take into consideration the economic, social and psychological factors of tax compliance, one issue demands serious attention to ensure voluntary compliance and expand the tax net. The
issue is the income visibility issue and the use of third-party information to ensure voluntary compliance. The purpose of this article is to argue that if the tax administration ensures that the income/financial transactions of the taxpayers are visible through third party information reporting (TPIR) system and there is no scope to cheat, then taxpayers will comply in apprehension of being caught because of their true income is reported to the tax authority by the third parties. Opportunity encourages fraud and if there is opportunity, taxpayers would evade tax. This is human nature. But if opportunity can be reduced, tax evasion also can be reduced. TPIR reduces the opportunity of tax fraud.

The article is arranged as follows. While part I gives an introduction, part II presents a brief literature review. Part III tries to present some evidences that third party information increases income visibility and consequently voluntary compliance. Part IV discusses the tax information regime in Bangladesh tax administration. Finally, part V will make some concluding remarks. The article is a theoretical analysis based on the existing laws and literature on the topic. The article is a first of its kind in Bangladesh and it contributes to income tax literature being a pioneer of the study through analysis of the topic and making some useful suggestions for Bangladesh income tax administration to introduce a strong TPIR in the country.

2.0 Literature Review

There are empirical evidences that where the income of the taxpayer is visible through third party information reporting, tax evasion rate is almost zero. Kleven et al (2011) found through field experiment in Denmark that tax evasion rate is near to zero in case of income that is subject to third party information reporting. But evasion rate is substantial in case of self-reported income. It clearly indicates that where the income is visible to the tax administration and taxpayer is aware of the fact, taxpayer declares the exact income without any attempt to evade tax. There is significant relationship between tax compliance and income visibility (Iyer et al, 2010). Quite a number of empirical studies support the proposition that visibility of income reduces the opportunity of tax evasion (Clotfelter, 1983; Witte and Woodbury, 1985; Dubin and Wilde, 1988; Klepper and Nagin 1989; Robben et al., 1990; Christian and Gupta, 1993; Antonides and Robben, 1995, Carnes and Englebrecht, 1995, cited in Iyer et al, 2010).

It was further found that prior audits and threat of audit letters have significant effects on self-reported income, but no effect on third-party reported income. Kleven (2014) found through empirical research, along with a strong third-party information reporting regime, social and cultural factors also play an important role in ensuring voluntary tax compliance in Scandinavian countries (Denmark, Norway and Sweden). Kleven (2014) states, “The descriptive cross-country evidence is consistent with social and cultural factors playing a role, although we are far from being able to interpret this evidence fully. But the discussion has also identified a set of concrete policies that can go some way towards explaining the Scandinavian puzzle, namely the use of far-reaching information trails that facilitate tax compliance, broad tax bases that limit the scope of legal tax avoidance, and large public spending focused on complements to work.”

Cui (2016) argues that third-party information reporting is not used by tax administrations in case of Value Added Tax (VAT) and corporate taxpayers. It is only found effective in case of personal income tax. Cui (2016) states, “As a simple heuristic, most developed countries do not use information reporting under their VATs or corporate income taxes. Information reporting is chiefly limited to wages and financial income under the personal income tax... Business receipts from individual consumers are not subject to information reporting.” Cui’s argument asserts that tax administrations can ensure tax compliance without taking resort to third party information. His argument is set against the facts that some important taxes—such as the value added tax (VAT)—do not involve information reporting and tax compliance is promoted by business firms and sites of social cooperation under the rule of law without the help of information reporting. In response to Cui’s argument Lederman and Dugan (2020) argue that professor Cui is wrong and third-party information reporting is highly effective, third-party reporting is used to enforce VATs, and firms are not inherently compliant. According to Lederman and Dugan (2020) firstly asymmetric information remains a vexing problem for the tax administrations because only taxpayers have the exact knowledge of her income and financial transactions while the tax office does not have this information and...
secondly under the circumstances, use of third-party information will promote tax compliance because the taxpayer’s activities are being observed. Lederman and Dougan (2020) argue, “Arm’s-length parties with a reporting obligation could collude with the taxpayer to underreport, but collusion is riskier than cheating alone, and thus less likely. In addition, reporting parties have several incentives to comply with their obligations, including the difficulty of accomplishing collusion on a large scale and the risk of detection and resulting sanctions.”

Kopczuk and Slemrod (2006) put emphasis on the firm’s role of remitting information to the tax authority and they state, “In most countries, firms remit the majority of tax revenues to the government, either with regard to taxes legally owed by businesses or through withholding of taxes legally owed by employees or other businesses. Even when businesses are not required to remit taxes, they are often required to file information reports that can facilitate monitoring of tax liabilities.” Morse (2013) on the other hand argues that although TPIRS provides valuable information to the tax authorities, it cannot offer total solution to the problem of tax non-compliance. Morse (2013) states, “Third-party withholding and reporting provide tax administrations with effective strategies to maximize compliance. But they cannot provide a complete solution. As an example, individual taxpayers not covered by third-party withholding or reporting will have the opportunity to evade taxes, and available evidence shows that they do evade.” Obviously, there are certain types of income where there is no scope to evade. For example, employers and banks would deduct tax at source and provide the information to the tax authority and the information sent are subject to cross verification through computer matching. But the persons who derive income from self-employment largely received in cash cannot be subject to withholding and information reporting. Cui (2017) argues that the scope of TPIRS is limited and it has substitutes. Cui (2017) states, “To properly evaluate the significance of TPIR, three basic facts, to which the existing literature has given inadequate attention, must be taken into account. First, where it is applied in modern tax collection, TPIR often has close substitutes that would not support the claim that tax collection is conditioned on the transmission of taxpayer information to the government. These substitutes show that the dependence of taxation on information transmission is an illusion. Second, the appeal to TPIR leaves it mysterious why payors would comply with reporting obligations instead of colluding with payees. Third, although some evidence for the effectiveness of TPIR is routinely cited, none of such evidence identifies the causal effect of TPIR on compliance.” While the thesis put forward by Cui has been critically analyzed by Lederman (2020), the views were also supported by some authors. For example, Hemel (2017) states, “Cui’s paper is ambitious, important, and—I think—largely right. He has persuaded me that third party reporting is not nearly as integral to tax collection as I previously believed. If there is a weak point in his argument, it is this: the evidence he produces in support of his “social cooperation” theory is equally consistent with the claim that business firms facilitate legal compliance precisely because they fail to engender close cooperation among their members.” Hemel, however, does not agree with the social cooperation theory of firms. Be that as it may, Cui’s arguments are forceful and appealing. Despite that the importance of TPIR cannot be undermined. TPIR cannot be a silver bullet solution for the tax compliance problem, there is no gainsay that it provides a major solution to the problem. Cui’s argument that modern tax administration can practice without information appears to be biased and unjustified.

Morse et al (2009) found through a study that business firms with cash receipts tend to underreport more than the receipts on paper trails like credit cards or by cheques. Morse et al (2009) state, “By far the most important determinant of tax compliance is income source. Taxpayers report cash income less accurately than income subject to third party reporting and/or withholding.” As noted, individuals evade business-source income, which is commonly received in cash, at a rate of approximately 50%, although this evasion is not evenly distributed. In contrast, the evasion rate on wage income-which employers report to the government and on which taxes are withheld—is about 1%.” They further state, “The strong relationship between evasion and income source suggests that the primary causal factor that explains evasion is opportunity. Employees whose employers comply with wage reporting rules cannot cheat successfully and so such employees do not cheat. Individual business owners can cheat successfully (because no one reports much of their income to the government
and because their income is hard to detect on audit) and, in the aggregate, individual business owners do cheat.”

So, it is clear that in case of income that is not visible, the taxpayer gets the opportunity to cheat or evade. But income subject to third party reporting become easily visible and the taxpayer does not get an opportunity to hide the income.

3.0 Evidence regarding the impact of income visibility on tax compliance

The developing countries like Bangladesh does not have strong third-party information reporting regime to make the income of taxpayer visible. But the picture is opposite in developed countries like Denmark, the USA, Australia, the UK. In this respect Kleven et al (2011) state, “…all advanced economies make extensive use of third-party information reporting whereby institutions such as employers, banks, investment funds, and pension funds report taxable income earned by individuals (employees or clients) directly to the government. Under third-party reporting, the observed audit rate is a poor proxy for the probability of detection faced by a taxpayer contemplating to engage in tax evasion, because systematic matching of information reports to income tax returns will uncover any discrepancy between the two.”

In the USA, Taxpayer Compliance Measurement Program (TCMP) found that aggregate compliance is much higher for income categories subject to information reporting than for income categories subject to little or no information reporting (Internal Revenue Service (1996, 2006, cited in Kleven et al, 2011)).

Kleven (2014) found through empirical study in Scandinavian countries that compliance is higher in case of income that are subject to specific third-party information reporting. Even if there is no specific third-party information regime, the tax administration can gather information from market transactions between taxpayers and third parties. Kleven (2014) states, “The enforcement and administration of modern tax systems rely crucially on third-party information from employers and the financial sector, which report taxable income on behalf of their employees and clients directly to the government. Absent collusion between the taxpayer and the third party, there is no scope for tax evasion on third-party reported income. More broadly, even when no explicit system of third-party reporting is in place, tax enforcement may benefit from information created by market transactions between the taxpayer and third-party agents.” Lederman and Dougan (2020) state, “Economists and legal experts have long recognized that the government needs information about taxpayers’ transactions in order to determine whether their reporting is honest. Tax experts have likewise long recognized that third-party information reporting (TPIR) is an important tool to promote compliance with the tax law.” Johnson and Rose (2019) show analyzing IRS data that the net misreporting percentage (NMP) for income amounts subject to substantial information reporting and withholding is 1 percent; for income amounts subject to substantial information reporting but not withholding, the NMP is 5 percent; and for income amounts subject to little or no information reporting, such as nonfarm proprietor income, the NMP is 55 percent. Lederman and Dougan (2020) put the information in the following form.

<table>
<thead>
<tr>
<th>Type of Income</th>
<th>Voluntary Compliance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Income subject to substantial information reporting and withholding”</td>
<td>99%</td>
</tr>
<tr>
<td>Income subject to substantial information reporting</td>
<td>95%</td>
</tr>
<tr>
<td>Income subject to some information reporting</td>
<td>83%</td>
</tr>
<tr>
<td>Income subject to little or no information reporting</td>
<td>45%</td>
</tr>
</tbody>
</table>

Source: Lederman and Dougan (2020).

While estimating tax gap for the tax years 2008-2010, regarding the importance of the third-party information reporting in ensuring voluntary compliance, IRS states, “The estimates confirm the relationship between reporting compliance and third-party information reporting that was demonstrated in earlier tax gap estimates. For the individual income tax, reporting compliance is far higher when income items are subject to information reporting and even higher when also subject to withholding.”

4.0 Third party information reporting system in Bangladesh

It is evident from the above elaboration that third-party information system is largely used in the developed economies like the USA, Denmark,
Norway, Sweden. It is widely acknowledged that developed countries, with comparably successful tax administration regimes, typically have robust information reporting and, in particular, third-party information reporting systems (Cui, 2019). But it is a pertinent issue to address whether the developing countries take recourse to the third-party information reporting system. It is observed that developing countries generally do not use TPIRS to ensure tax compliance (Cui, 2019). Therkildsen (2004) identified some weaknesses of the revenue administrations of the developing countries. Among those weakness poor information is one. Lack or poor third-party tax information reporting speaks for the weakness of the tax administrations of the developing countries. Therkildsen (2004) identifies main causes of poor tax administration as, "... low public sector salaries; little or no encouragement for staff and management to exercise initiative; excessive legalism and over-dependence on rules and regulations, combined with extensive break-down of procedures; lack of a tax-paying culture among taxpayers, partly caused by a tax system perceived as unfair; and weak management, with poor information, auditing and supervision of staff."

However, it is generally argued that in developing country tax administrations TPIRS can play a vital role in ensuring voluntary compliance, but that should not be stand alone. It can be complementary to other tools of tax compliance. Carrillo et al (2017) state, "... third-party reporting and traditional methods may in fact be complementary with each other. Despite the growth of computer-based monitoring using cross-checks of third-party information, strengthening the auditing and enforcement capacity of developing country governments still remains crucial for effective tax collection. Over time, third-party reporting can become more effective as tax authority capacity increases and the scope of transactions that are third-party reported grows. This allows governments to target audits to remaining non-third-party reported margins."

In Bangladesh, the main taxing statute is the Income Tax Ordinance 1984 (The ITO). The ITO contains a strong tax withholding regime and a partial third-party information reporting law. The relevant legal provisions are mentioned below:

**Section 75A: Return of withholding tax**

As per the provisions of section 75A, a company or a co-operative society or a non-government organization registered with NGO Affairs Bureau, a Micro Credit Organization having license with Micro Credit Regulatory Authority, a university, a private hospital, a clinic, a diagnostic center, an English medium school providing education following international curriculum, artificial juridical person, local authority, a firm or an association of persons, shall file or cause to be filed, with the Deputy Commissioner of Taxes under whose jurisdiction he is an assessee, a return of tax deducted or collected under the provisions of Chapter VII of the ITO.

The return has to be submitted twice a year, first return by thirty-first January of the year in which the deduction or collection was made and the second one is by thirty-first July of the next year following the year in which the deduction or collection was made. According to section 75AA of the ITO, the Deputy Commissioner of Taxes (DCT) shall select returns filed under section 75A for audit with prior approval of the National Board of Revenue (NBR). While conducting audit the DCT shall examine whether taxes at were deducted at prescribed rates and deposited to the treasury. If there is any non-compliance revealed, the DCT can take penal action as per law.

Section 75A and 75AA authorize the DCT to examine whether taxes at source are deducted properly and deposited to the treasury. There is nothing provided whether the information received can be used to cross verify the income of the recipients of the bills. Besides, the audit process requires approval from the NBR. Anecdotal evidence shows that the process consumes time and there is apathy among the DCTs to audit the returns. Moreover, the institutions which are required to submit returns, very often do not submit the returns. The NBR should monitor the issue actively.

**Section 75B: Obligation to furnish Annual Information Return.**

Section 75B provides that Government may, by notification in the official gazette, require any person or group of persons responsible for registering or maintaining books of account or other documents containing a record of any specified financial transaction, under any law for the time being in force, to furnish an Annual Information Return, in respect of such specified financial transaction. The Annual
Information Return referred to in sub-section (1) shall be furnished to the Board or any other income tax authority or agency, in such form, manner and within such time as may be prescribed.

From a simple perusal, it can be said that the law is insufficient to gather necessary information for compliance purpose. First of all, before information is sought, there must be notification in the official gazette. Secondly, it is not mandatory for the NBR to seek information. There is discretion on the part of the authority whether it would ask for the information or not. Thirdly, transactions have not been listed. It leaves enough discretion for the authority to apply the law in a different way. Under the circumstances, it can be said that the law is not comprehensive and from the time of its enactment, the law has hardly been put in application.

Section 108: Information regarding payment of salary to be furnished by the employer to the income tax authority.

Section 108 says that every person responsible for making any payment constituting income classifiable under the head “Salaries” not being payment made by the Government, and the prescribed officer in cases where such payments are made by the Government, shall, before the first day of September each year, furnish to the Deputy Commissioner of Taxes, a statement prepared in the prescribed form and verified in the prescribed manner so as to give the following information, namely:-

(a) the name and address of every person to whom such payment has been made, or was due, during the preceding financial year if the payment exceeds such amount as may be prescribed;
(b) the amount of payment so made, or due;
(c) the amount deducted as tax from such payment; and
(d) such other particulars as may be prescribed.

Section 108A: Information regarding filing of return by employees.

Section 108A was inserted in the ITO by Finance Act 2018. This section makes it compulsory for the employee to furnish the following information:

(a) Taxpayer’s Identification Number;
(b) Date of filing of the return of income;
(c) The serial number provided by the income tax authority upon filing of the return.

The makes it compulsory for the person responsible for making any payment which is an income of the payee classifiable under the head “Salaries” to furnish to the income tax authority by April each year a statement containing the following information.

(a) The name, designation and the Taxpayer’s Identification Number;
(b) Date of filing of the return of income;
(c) The serial number provided by the income tax authority upon filing of the return.

The section makes an exception that the provisions of the law shall not be applicable in case of a payment made by the Government.

Section 109: Information regarding Payment of interest

According to section 109 every person responsible for making any payment of interest constituting income not classifiable under the head “Interest on securities” shall, if such payment exceeds fifteen thousand taka before the first day of September each year, furnish to a prescribed officer a statement prepared in the prescribed form and verified in the prescribed manner so as to give the following information, namely:-

(a) the name and address of every person to whom such payment has been made, or was due, during the preceding financial year;
(b) the amount of payment so made or due; and
(c) such other particulars as may be prescribed.

Section 110: Information regarding payment of dividend

According to section 110, the principal officer of every company shall, before the first day of September each year, furnish to the prescribed officer a statement prepared in the prescribed form and verified in the prescribed manner, so as to give the following information, namely:-

(a) the name and address of every shareholder, as entered in the register of shareholders, to whom a dividend or the aggregate of dividends has been paid or distributed during the preceding financial year if such payment exceeds such amount as may be prescribed;
(b) the amount of dividend or dividends so paid or distributed; and
(c) such other particulars as may be prescribed.

It is observed that, though not stand alone, the ITO contains some legal provisions regarding third party information reporting. The regime is not as broad as it
is in the developed economies like the USA, Australia and other OECD countries. Developed economies largely rely on income related taxes. Compliance in case of personal income tax is over 82% in those developed countries. To ensure high level of compliance the governments of those countries have taken necessary measures. Including third-party information reporting. OECD (2009) states, “Governments have evolved a number of instruments to ensure a high degree of compliance is achieved in relation to income-related taxes. The key instruments are: 1) withholding of tax at source obligations of payers; and 2) systematic reporting to revenue bodies by payers of income paid to payees, hereafter referred to as ‘information reporting obligations’. In practice, these instruments are deployed almost universally for employment and/or investment income. Research findings from a number of countries indicate that, subject to effective administration, these instruments result in very high levels of voluntary compliance in practice, often well over 95%.” In Bangladesh there is a strong tax withholding regime. Chapter VII of the ITO and the corresponding rules contain the detailed provisions of deduction of tax at source. Against this backdrop, now it is time that Bangladesh should go for a broad-based third-party information reporting system. But for that what is imperative is that Bangladesh should develop its capacity to deal with the information received through TPIRS. A strong TPIRS provides huge information that need to be stored, matched and analyzed by the tax office. So, the tax office must have the capacity to deal with the information. For a successful TPIRS Lederman (2010) prescribed some conditions which are worth noting here. According to Lederman, for a successful TPIRS, the following six contexts are essential.

a) The party furnishing the information report to the tax authority should be at arm’s-length from, and there should not be any collusion between the taxpayer and the information provider.

b) Firms that have enough bookkeeping infrastructure should be required to information report.

c) Information reporting parties should be fewer in number than taxpayers reported on, allowing the government to centralize the sources of information.

d) "Information reporting is most effective when it provides all of the information necessary for the government to match the third-party report with corresponding amounts on the taxpayer’s return; partial reporting reduces enforcement efficiency.”

e) There should be few ways for the taxpayer to cheaply avoid information reporting.

f) Transactions that do not contribute substantially to the tax gap in the absence of information reporting should not be prime targets for information reporting.

The conditions put forward by Lederman (2010) are very important for a successful TPTIR. Along with those some more issues deserve attention against the backdrop of a developing country like Bangladesh. The issues are discussed briefly.

Building capacity of the tax administration

A broad bases TPIR system would provide information in bulk. The tax office should have the capacity to process the information received from the third party. Information received must be stored and matched with the information provided by the taxpayers. Besides, there is secrecy issue with the information gathered. So, the tax department must have a strong ICT system to deal with the issues. It is imperative that skilled human resources are developed and retain with incentives and motivations. Moore et al (2015) state, “The greatest challenge for tax administrations is retention of skilled staff, particularly those with scarce and valuable skills, especially in IT, accounting, and forensic auditing. This is a general problem for the public sector everywhere in the world, but it is particularly acute in low-income countries where there is a smaller pool of people with these skills, and so they are sometimes ‘poached’ by private firms. Although revenue authorities already pay their staff well compared to the rest of the civil service, there are cases in which higher remuneration for particularly valuable staff is justified, since losing them can have costly repercussions.” Under the circumstances, Bangladesh tax administration should consider the issue of skilled manpower and ICT seriously.

Bringing digital economy within reporting network

Currently, the tax administrations around the world are facing big trouble in taxing digital economy. There are no symmetrical rules of international tax law to deal with the problem. Saiya (2020) states, “Triggered by the desire to protect tax base and uncertainty about a mutually-accepted solution, several countries introduced unilateral measures like equalisation levy, withholding tax, digital services tax, VAT/GST, etc.
With the pandemic and the resulting economic slump causing deficit in tax revenues of governments, it is likely more countries may implement such measures. While these measures may/may not fill coffers of governments, they add to the complexity of doing business for a global corporation. Besides additional compliance and tax cost, they add to risks from non-compliance, unintended litigation, increased efforts and ultimately increased cost of doing business.” Under the circumstances, it is proposed that the tax administration of Bangladesh should take measures to bring the digital economy within third-party reporting network so that the digital economy can be taxed properly.

**Garnering political will**

For any kind of reform political will is imperative. If the politicians are not interested in tax reform, then no reform can be done in the revenue administration. Prichard et al (2019) state, “There is now near-universal agreement that political hurdles are frequently the most important barriers to reform – and thus agreement about the importance of problem-focused political economy analysis to inform reform efforts. A problem-focused political economy analysis aims to provide a sophisticated assessment of the politics of reform that anticipates likely challenges – both inside and outside of tax agencies – and potential strategies for confronting them. The starting point is an assessment of the extent of political support for reform and the configuration of political interests. The core concern is not with an exhaustive mapping of possible interests, but a focused interrogation of the interests that are likely to shape the prospects for the success of reform, with a view to (a) informing the design of reform that is most likely to succeed amid existing political constraints (“incentive compatible reform”); and (b) supporting the design of strategies to minimize resistance and build support for reform.” So needless to say, that political barrier would undermine any reform effort by the tax administration. Before going for a broad based TPIR, the first thing is to convince the politicians regarding the positive impact of the law.

**Helping tax officials for tax reform**

Besides the political economy of tax reform, it is imperative that the tax bureaucrats have the interest and scope for tax reforms. Tetlow et al (2020) state, “While it is ultimately ministers who decide on tax policy and tax reform, civil servants still have an important role to play. Ministers rely on civil servants for advice and to implement decisions.” According to Tetlow et al (2020) the tax bureaucrats can help in tax reform in three ways. Firstly, they can supply important evidence base for tax reform and also the costs of reforms and weaknesses of the existing system. Secondly, they can make the useful analysis of the issues that can contribute to public debate and finally, they can make substantial contributions by designing and implementing packages of reform in collaboration with ministers. In Bangladesh, anecdotal evidence shows that most of the top tax bureaucrats try to avoid the hassle of tax reform. They usually want to retire from civil service quietly taking care of their retirement benefits and other related issues. To put it otherwise, they do not find any motivation to take the challenges of tax reform. The capacity of the tax bureaucrats must be increased through proper training and incentives. Tetlow et (2020) state, “For civil servants to play an effective role in tax reform, they need to have the capacity to engage in long-term strategic thinking and planning – investing for windows of opportunity. This needs to take place alongside pressing short-term work, most notably preparing budget policies.” Government of Bangladesh should think of the issue and involve the bureaucrats in the implementation of tax reforms and remove their apathy for reform.

**5.0 Conclusion**

Despite arguments for and against the TPIR system, it is established through empirical studies that proper presence of a strong TPIR system boosts voluntary compliance to a great extent. For a developing country like Bangladesh TPIR can be of great help to increase tax compliance. One thin, however, should be borne in mind that TPIR is not the panacea for tax compliance problem. At the same time, it is imperative that a robust tax culture is developed in Bangladesh over the years. Also, there must be appropriate penal provisions in the tax statute to discourage collusion between the parties involved in the process of third-party information reporting. To reduce tax evasion opportunity to do so must be reduced through increasing visibility of income as Lederman (2020) states, “Information reporting thus decreases the perceived opportunity to evade tax. It is not surprising that there is a strong correlation between the presence or robustness of TPIR and reporting compliance. Opportunity is an essential element of fraud and similar wrongdoing.” However,
information is not enough. The information received through TPIR must be analyzed and matched by expert hand. As Solheim (2019) comments, “TPIR is a bit like cooking. Fantastic raw materials will not end up as gourmet meals on their own. You need a talented and skilled chef and a kitchen with the right tools, as well… TPIR is a superb ingredient in the hands of a skilled chef in a well-equipped kitchen, but add that you really need a close partnership with your suppliers to make it happen without prohibitive costs.”

Reference

Income Tax Ordinance, 1984
Kopczuk, Wojciech and Stremrod, Joel. 2006. Putting Firms into Optimal Tax Theory, American Economic Review, 96(2), 130-134.
The National Investment and Infrastructure Fund Ltd has marked the final close of its NIIF Master Fund at $2.34 billion (Rs 17,293 crore) after receiving commitments from a fifth set of Limited Partners. The firm said that Canadian pension fund Public Sector Pension Investment Board (PSP Investments), US International Development Finance Corporation (DFC), and existing investor Axis Bank, signed agreements for investments of around $107 million (about Rs 790 crore) with NIIF Master Fund. International investors have rights to co-invest an additional $3 billion alongside the fund.

Alibaba, Tiger Global, SoftBank Vision Fund, Sequoia Capital China, and FountainVest Partners have invested an USD1.6b Series E for China-based edtech Zuoyebang. Existing investors Sequoia Capital China led an USD515m Series E for Hong Kong-based on-demand delivery company Lalamove, with follow-on from Shunwei Capital Partners and Hillhouse Capital. Trustbridge Partners led a USD500m funding round for China-based healthtech DXY, with participation from Tencent and GL Ventures. Oceanpine has reached an USD400m final close for its second fund targeting investments in tech and health care.

Ontario Teachers’ Pension Plan (OTTP) has agreed to invest KRW300b (approximately USD275m) in South Korea-based fried chicken restaurant chain BHC Group, facilitating a full exit for Elevation Equity Partners. CITIC PE, CICC Capital, and Primavera Capital led a CNY1.8b (approximately USD279m) Series C for China-based AI chip designer Enflame Technology, with follow-on from Tencent Holdings, Summitview Capital, and Redpoint Ventures China. Mekong Capital has reached an USD246m final close for MEF IV. The vehicle will make growth equity investments in Vietnamese companies operating in the retail, education, restaurants, consumer services, health care, and fast-moving consumer goods sectors.

TPG’s The Rise Fund led an USD210m Series D for Meishubao, a Chinese online art education platform, with participation from Fortune Capital, Winsdom Capital, SAIF Partners, Bojia Capital, and Chuangzhi Capital. OPFinnfund Global Impact Fund I has reached a EUR135m (approximately USD166m) second close. The impact vehicle, which targets investments in emerging markets across renewable energy, financial institutions, and sustainable agriculture, reached a EUR76m (~USD93.5m) first close in June 2020. The second round of funding ended in December 2020 and raised EUR58m (~USD71.5m).

The Carlyle Group led an USD123m Series D for China-based biotech firm Abbisko, with participation from Warburg Pincus, OrbiMed, and Lake Bleu Capital. Janchor Partners, Sage Partners, SHC, and Greater Bay Area Homeland Development Fund also participated in the round, and existing investors Lilly Asia Ventures, Temasek Holdings, Qiming Venture Partners, Hankang Capital, and CICC Capital followed on.

5Y Capital (formerly Morningside Venture Capital), Hillhouse Capital’s GL Ventures, and Capital Today led the USD150m first tranche of a Series C for China-based AI chip designer Horizon Robotics, with participation from Guotai Junan International and KTB. Everstone Capital has agreed to sell India-based bread and bakery brand Modern Foods to Mexican bakery giant Grupo Bimbo for an undisclosed amount. CITIC Capital has invested an undisclosed amount in MaxInf, a China-based provider of baby travel safety systems.
The Journal is running a series of updates on IFRS, IAS, IFRIC and SIC. In this issue, Mr. Mohammad Samsul Arefin ACMA (UK), CGMA, FCMA has taken the responsibility to update the reflection on some latest pronouncements by IASB in their website.

Mr. Arefin has been working as Head of Internal Audit & Compliance in RAK Ceramics (Bangladesh) Limited.

IFRS Update

The International Accounting Standard Board (IASB) published updates on amendment initiatives to its respective standards and other undertakings during last 2 months (November – December 2020). Some important updates are as follows:

Amendments to IFRS 16 - Sale and Leaseback Transactions:

The International Accounting Standards Board proposed to amend IFRS 16 Leases by specifying how a company measures the lease liability in a sale and leaseback transaction.

Sale and leaseback transactions are transactions for which a company sells an asset and leases that same asset back from the new owner.

IFRS 16 includes requirements for how to account for sale and leaseback transactions at the time the transaction takes place. However, it does not specify how to measure the lease liability when reporting after that date.

The proposed amendment would improve the sale and leaseback requirements already in IFRS 16 by providing greater clarity for the company selling and leasing back an asset both at the date of transaction and subsequently. By doing so, the amendment would help ensure the Standard is applied consistently to such transactions.

The proposed amendment would not change the accounting for leases other than those arising in a sale and leaseback transaction.

The proposed amendment has been drafted and is open for public comment until 29 March 2021.
The extract of this amendment is as follows:
(Paragraphs 100, 102 and C2 are amended and paragraphs 100A, 102A–102B, C1C and C20E are added)

Assessing whether the transfer of the asset is a sale:

- **100** If the transfer of an asset by the seller-lessee satisfies the requirements of IFRS 15 to be accounted for as a sale of the asset:

  (a) the seller-lessee shall:
    
    (i) initially measure the right-of-use asset arising from the leaseback at the proportion of the previous carrying amount of the asset that relates to the right of use retained by the seller-lessee. The seller-lessee shall determine that proportion by comparing the present value of the expected lease payments (see paragraph 100A), discounted using the rate specified in paragraph 26, to the fair value of the asset sold. Accordingly, the seller-lessee shall recognize only the amount of any gain or loss that relates to the rights transferred to the buyer-lessor.
    
    (ii) recognize a lease liability arising from the leaseback. The seller lessee shall initially measure the lease liability at the present value of the expected lease payments (see paragraph 100A) that are not paid at the commencement date, discounted using the rate specified in paragraph 26.

- **100A** for the purposes of applying paragraphs 100–102B, the expected lease payments comprise the following payments relating to the right to use the asset during the lease term at market rates:

  (a) fixed payments (including in-substance fixed payments), less any lease incentives;
  
  (b) variable lease payments (regardless of whether they depend on an index or a rate);
  
  (c) amounts expected to be payable by the seller-lessee under residual value guarantees; and
  
  (d) payments of penalties for terminating the lease, if the lease term reflects the seller-lessee exercising an option to terminate the lease.

- **102** The entity shall measure any potential adjustment required by paragraph 101 on the basis of the more readily determinable of:

  (a) the difference between the fair value of the consideration for the sale and the fair value of the asset; and
  
  (b) the difference between the present value of the contractual payments for the lease and the present value of the expected lease payments

- **102A** The seller-lessee shall subsequently measure:

  (a) the right-of-use asset arising from the leaseback applying paragraphs 29–35.
  
  (b) the lease liability arising from the leaseback applying paragraph 102B.

- **102B** The seller-lessee shall subsequently measure the lease liability arising from the leaseback by:

  (a) increasing the carrying amount to reflect interest on the lease liability (see paragraph 37).
  
  (b) reducing the carrying amount to reflect the expected lease payments for the reporting period as determined at the commencement date, or if applicable the revised expected lease payments for the reporting period as determined at the date of re-measurement.
  
  (c) re-measuring the carrying amount as specified in paragraph 36(c), except in the circumstances described in paragraph 42(b). In applying paragraphs 40(a) and 45, the revised lease payments as described in those paragraphs shall be the revised expected lease payments at the date of re-measurement. Except for a change in the lease term or a lease modification (see paragraphs 40(a) and 45), the seller-lessee shall not re-measure the lease liability to reflect a change in future variable lease payments.
  
  (d) recognizing any difference between the actual payments made for the lease (excluding any above-market terms described in paragraph 101(b)) and the expected lease payments for the reporting period as specified in paragraph 38. If there are shortfalls in the actual payments made (i.e. the payments made are less than the payments due) or recoveries of shortfalls, the seller-lessee shall also adjust the carrying
amount of the lease liability and make a corresponding adjustment as specified in paragraph 38.

**Lease liability in a sale and leaseback:**
- C20E A seller-lessee shall apply Lease Liability in a Sale and Leaseback retrospectively in accordance with IAS 8 to sale and leaseback transactions entered into after the date of initial application. However, if retrospective application to a sale and leaseback transaction that includes variable lease payments would be possible only with the use of hindsight, the seller-lessee shall determine the expected lease payments for that transaction at the beginning of the annual reporting period in which the seller-lessee first applies the amendment (date of initial application of the amendment). In such circumstances, the seller-lessee shall:
  (a) measure the lease liability arising from the leaseback at the present value of the remaining expected lease payments at the date of initial application of the amendment, discounted using the rate specified in paragraph 37;
  (b) measure the right-of-use asset arising from the leaseback at its carrying amount as if the amendment had been applied since the commencement date, but measured using the remaining expected lease payments at the date of initial application of the amendment plus the actual payments made for the lease until that date; and
  (c) recognize the cumulative effect of applying the amendment as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate) at the date of initial application of the amendment.

**IASB issues Discussion Paper on Business Combinations Under Common Control:**

**03 December 2020**

The IASB has published a discussion paper (DP) on how the Board might explore standard setting relating to business combinations under common control (BCUCC).

IFRS 3 Business Combinations set out reporting requirements for mergers and acquisitions—referred to as business combinations in IFRS Standards. However, that Standard does not specify how to report transactions that involve transfers of businesses between companies within the same group. Such transactions are common in many countries around the world.

Comments on the discussion paper are open until 1 September 2021.

**IASB issues request for information as part of the Post Implementation Review (PIR) on IFRS 10, 11 and 12:**

**10 December 2020**

The IASB has issued a request for information (RFI) as part of its post implementation review (PIR) on IFRS 10, 11 and 12, which have been effective since 1 January 2013 and set out accounting and disclosure requirements for consolidated accounts and joint arrangements. The RFI has a deadline for comments of 10 May 2021.

PIRs are carried out to assess the effects of a new Standard after entities have applied the requirements for some time, so the IASB can determine if the effects of the Standard are what they expected.

**Source of information:**

IASB website
BDO Global
UPDATE ON Financial Market

The Journal is running a series of updates on Financial Market of Bangladesh (i.e. Money Market and Capital Market). In this issue of THE COST & MANAGEMENT, Mr. Mohammad Shamsur Rahman, FCMA has given a reflection of relevant changes and updates on Financial Market. The analysis of the market has been done considering the period from November 01, 2020 to December 31, 2020. Mr. Rahman is currently working as Chief Regulatory Officer (CRO) of Chittagong Stock Exchange Limited.

Bangladesh Economic Outlook

- Reserve money recorded an increase of Taka 38,133.80 crore or 15.19 percent at the end of October 2020 against the increase of Taka 22,919.70 crore or 10.05 percent at the end of October 2019. Of the sources of reserve money, net foreign assets of Bangladesh Bank increased by Taka 66,376.20 crore while net domestic assets of Bangladesh Bank decreased by Taka 28,242.40 crore at the end of October 2020 as compared to October 2019.
- The twelve-month average general inflation increased to 5.77 percent in October 2020 which was 0.37 percentage point higher than the target of 5.40 percent for FY21.
- The point-to-point Food inflation increased to 7.34 percent in October 2020 from 6.50 percent in September 2020 while non-food inflation decreased to 5.00 percent in October 2020 from 5.12 percent in September 2020. As a result, point to point general inflation increased significantly to 6.44 percent in October 2020 which was 5.97 percent in September 2020.
- Total merchandise commodity export during July-October, FY21 increased by USD 123.39 million or 0.97 percent to USD 12,844.64 million compared to USD 12,721.25 million during July-October, FY20. However, according to EPB data, merchandise commodity export in October of FY21, was lower by USD 125.43 million or 4.08 percent and stood at USD 2,947.80 million from USD 3,073.23 million in October of FY20.
- Custom based import during July-September, FY21 fell by USD 1,637.50 million or 11.43 percent and stood at USD 12,686.50 million against USD 14,324.00 million during July-September, FY20. Settlement of import LCs during July-September, FY21 decreased by 13.75 percent and stood at USD 11,501.27 million against USD 13,335.28 million of July-September, FY20. Fresh opening of import LCs during July-September, FY21 decreased by 8.90 percent and stood at USD 13,300.44 million against USD 14,599.31 million of July-September, FY20.
- Receipts of workers’ remittances during July-October, FY21 increased by USD 2,664.64 million or 43.25 percent and stood at USD 8,825.64 million against USD 6,161.02 million of July-October, FY20.
- The weighted average call money rate in the inter-bank money market decreased to 2.06 percent up to November 24th of FY21 from 2.61 percent in October of FY21.
- The general index of industrial production (medium & large-scale manufacturing) increased by 9.29 percent and stood at 470.58 in July of FY21 over July of FY20.
- Bangladesh Taka and Indian Rupee (INR) appreciated by 0.12 percent and 2.10 percent respectively against the US dollar at the end of October 2020 as compared to its level of end June 2020. As per the latest available data, Bangladesh Taka has recently been depreciating against the Indian Rupee.
- Trade balance recorded a lower deficit of USD 2039 million during July-September, FY21 as compared to the deficit of USD 3840 million during July-September, FY20. Current account balance incurred surplus at USD
3534 million due to significant increase in inflow of workers’ remittances. The overall balance also achieved a remarkable surplus of USD 3098 million during July-September, FY21 as compared to the deficit of USD 204 million during July-September, FY20, with the support of surplus in current account balance.

- NBR tax revenue during July-September, FY21 stood at Taka 49,989.72 crore which was higher by Taka 1,974.02 crore or 4.11 percent against the collection of Taka 48,015.70 crore during July-September, FY20. While, total tax revenue during July-September, FY21 stood at Taka 50,884.84 crore which was higher by Taka 1,629.89 crore or 3.31 percent against the collection of Taka 49,254.95 crore during July-September, FY20.

The summary of the economic outlook depicted below:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>30 November 2020</th>
<th>30 December 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Exchange Reserve (In million US$)</td>
<td>41269.02</td>
<td>43172.47</td>
</tr>
<tr>
<td>Interbank Taka-USD Exchange Rate (Average)</td>
<td>84.8000</td>
<td>84.8028</td>
</tr>
<tr>
<td>Call Money Rate (Weighted Average Rate)</td>
<td>1.86</td>
<td>2.12</td>
</tr>
<tr>
<td>Import (C&amp;F) (in million US$)</td>
<td>4632.50</td>
<td>4818.40</td>
</tr>
<tr>
<td>Import (f.o.b) (in million US$)</td>
<td>4304.00</td>
<td>4457.00</td>
</tr>
<tr>
<td>Export (EPB) (in million US$)</td>
<td>3018.76</td>
<td>3078.95</td>
</tr>
<tr>
<td>Rate of Inflation on the basis of Consumer Price Index for National (Base:2005-06=100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Twelve Month Average Basis</td>
<td>5.77</td>
<td>5.73</td>
</tr>
<tr>
<td>b) Point to Point Basis</td>
<td>6.44</td>
<td>5.52</td>
</tr>
<tr>
<td>GDP Growth Rate (in percent, Base: 2005-06=100)</td>
<td>8.15 (2018-19)</td>
<td>5.24 (2019-20)</td>
</tr>
</tbody>
</table>

Source: Bangladesh Bank

Bangladesh Capital Market Updates

- The stock market regulator has approved National Polymer’s application to raise Tk 547.38 million through rights issue. The company will issue one rights share against existing one share (1R:1). The company will issue more than 36.49 million rights shares of Tk15 each, including Tk 5.0 as a premium. The raised fund will be used to cope with the business growth, strengthen the capital base of the company, repay bank loans and purchase land. AAA Financial & Investment Ltd will be the issue manager of the company’s rights issue.

- The Bangladesh Securities and Exchange Commission has approved the following proposal to raise fund from the capital market through an initial public offering under fixed price and book building method:

<table>
<thead>
<tr>
<th>Name/Nature</th>
<th>Amount</th>
<th>Purpose</th>
<th>Issue managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mir Akhter Hossain Limited</td>
<td>Tk 125 crore</td>
<td>Purchase machinery, repay bank loan, and bear the IPO expense.</td>
<td>IDLC Investments Limited</td>
</tr>
<tr>
<td>NRB Commercial Bank Limited</td>
<td>Tk 120 crore</td>
<td>Purchase government securities, invest in the secondary market and bear the IPO expense.</td>
<td>Asian Tiger Capital Partners Investment Limited and AFC Capital Limited</td>
</tr>
<tr>
<td>Desh General Insurance Company</td>
<td>Tk 16 crore</td>
<td>Invest in treasury bond, fixed deposit receipt (FDR) and capital market along with bearing the IPO expenses.</td>
<td>Prime Finance Capital Management</td>
</tr>
<tr>
<td>Sonali Life Insurance Company</td>
<td>Tk 19 crore</td>
<td>Invest the fund in government securities, fixed deposit receipts (FDRs) and in the secondary market.</td>
<td>ICB Capital Management and Agrani Equity and Investment Limited</td>
</tr>
<tr>
<td>Index Agro Industries Limited</td>
<td>Tk 50 crore</td>
<td>Construct a building and buy machinery along with bearing the IPO expenses.</td>
<td>AFC Capital Ltd and EBL Investments Limited</td>
</tr>
</tbody>
</table>

- The Bangladesh Securities and Exchange Commission has allowed the following institutes to float for raising fund through bond:

<table>
<thead>
<tr>
<th>Name of Institute</th>
<th>Nature of Bond</th>
<th>Amount</th>
<th>Trustee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Islami Bank</td>
<td>Unsecured contingent-convertible bond, Mudaraba perpetual bond</td>
<td>Tk 500 crore</td>
<td>EBL Investment Limited</td>
</tr>
</tbody>
</table>
Islami Bank Bangladesh Limited | Non-convertible, fully redeemable, unsecured and unlisted | Tk.600 crore | Green Delta Insurance Company
First Security Islami Bank | Unsecured, contingent convertible, floating rate, Mudaraba Perpetual bond | Tk. 600 crore | Green Delta Insurance Company
United Commercial Bank | Unsecured, floating rate, conditional convertible, perpetual bond | Tk. 400 crore | MTB Capital
Trust Bank Limited | Unsecured, non-convertible and floating-rate, subordinated bond | Tk. 400 crore | Green Delta Insurance Company

- The Bangladesh Securities and Exchange Commission has approved the following proposal to raise fund from the capital market:

<table>
<thead>
<tr>
<th>Name of Sponsor</th>
<th>Nature of fund</th>
<th>Amount</th>
<th>Trustee and Custodian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candle Stone Investments Partner Ltd</td>
<td>Candle Stone Rupali Bank Growth Fund</td>
<td>Tk. 100 crore</td>
<td>Investment Corporation of Bangladesh (ICB) and Brac Bank</td>
</tr>
<tr>
<td>UCB AML First Mutual Fund</td>
<td>Open-end mutual fund</td>
<td>Tk.20 crore</td>
<td>Sandhani Life Insurance Company and BRAC Bank</td>
</tr>
</tbody>
</table>

DSE and CSE Market Updates (from November 01, 2020 to December 30, 2020)

- The DSE Broad Index (DSEX) at the end of December 2020 stood at 5402.07 which was 11.47 percent higher than the index of 4846.1 at the beginning of November 2020. The daily turnover was highest on December 30, 2020. Changes in indices of DSE (from November 01, 2020 to December 30, 2020):

<table>
<thead>
<tr>
<th>Indices</th>
<th>Open</th>
<th>Close</th>
<th>Point Change</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSEX</td>
<td>4846.1</td>
<td>5402.07</td>
<td>555.97</td>
<td>11.47%</td>
</tr>
<tr>
<td>DSES</td>
<td>1098.8</td>
<td>1242.11</td>
<td>143.31</td>
<td>13.04%</td>
</tr>
<tr>
<td>DS30</td>
<td>1680.13</td>
<td>1963.96</td>
<td>283.83</td>
<td>16.89%</td>
</tr>
</tbody>
</table>

(*considering 1st November as base)

- The CSE All Share Price Index (CASPI) at the end of December 2020 stood at 15592.92 which was 12.79 percent higher than the index of 13824.13 at the beginning of November 2020. The daily turnover was highest on December 14, 2020. Changes in indices of CSE (from November 01, 2020 to December 30, 2020):

<table>
<thead>
<tr>
<th>Indices</th>
<th>Open</th>
<th>Close</th>
<th>Point change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASPI (All share index)</td>
<td>13824.13</td>
<td>15592.92</td>
<td>1768.79</td>
<td>12.79%</td>
</tr>
<tr>
<td>CSE-30</td>
<td>11370.18</td>
<td>12426.52</td>
<td>1056.34</td>
<td>9.29%</td>
</tr>
<tr>
<td>CSCX</td>
<td>8319.75</td>
<td>9403.55</td>
<td>1083.8</td>
<td>13.03%</td>
</tr>
<tr>
<td>CSE 50 (Benchmark)</td>
<td>995.32</td>
<td>1160.37</td>
<td>165.05</td>
<td>16.58%</td>
</tr>
<tr>
<td>CSI (CSE Shariah Index)</td>
<td>888.07</td>
<td>1018.84</td>
<td>130.77</td>
<td>14.73%</td>
</tr>
</tbody>
</table>

(*considering 1st November as base)

- The total market capitalization of all shares and debentures of the listed securities of DSE stood higher by 13.45 percent at Tk. 4482.30 billion as on December 30, 2020 from Tk. 3950.99 billion on November 01, 2020. On the other hand, the total market capitalization of all shares and debentures of the listed securities of CSE stood higher 15.23 percent at Tk. 3754.94 billion as on December 30, 2020 from Tk. 3258.59 billion on November 01, 2020.

Source: website of BSEC, DSE & CSE

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Why do you pursue CMA education from ICMAB? Explain in detail?

ICMAB is the govt. recognized professional Accounting body in Bangladesh which provides the prestigious CMA degree. I came to know about ICMAB and the need for professional accountant in our country from my university teacher. I was curious about the profession and asked a number of seniors about the persuasion of CMA degree. Their reply was very positive and they suggested me for enrolling myself for pursuing this prestigious degree. Having a dream to become a future corporate leader I was then sure that I need to pursue a professional degree along with my academic study. I took a single step and enrolled myself in pursuing CMA degree. The environment of dynamic education enables in building professional networking and acquiring market driven skills. The most attractive thing about CMA degree is that anyone can pursue this prestigious and leading professional accounting qualification with a minimum cost.

How do you make a comparison between CMA education and other academic qualifications?

As I’ve enrolled myself in pursuing CMA degree when I was a third-year student of BBA, I’ve noticed the different scenarios of a professional education and academic education. Academic qualifications focuses mainly acquiring theoretical and research based knowledge while CMA degree focuses on practical knowledge in Costing and Managerial Accounting. Academic good grades are not the real indicator of practical skill which employers are seeking the most. Professional qualifications like CMA takes the responsibility to fill the void and produces more practical and skilled human resources.

What are the main challenges you faced in studying for CMA education?

For me, main challenge is to maintain both my academic studies as well as professional studies. Though the study of CMA offers some extra benefits for my regular academic study, I have to take some extra pressure. For example, I have to sit for both academic and professional exams. Another challenge is to maintain proper study plan and manage time for bigger CMA syllabus.
Do you think that CMA qualification will help you to get added advantage in the job market?
Completing CMA degree indicates that a person has proper knowledge in the fields of costing, budgeting, financial planning and also in financial control. I believe this would add extra advantages in the job market. I have the dream of working in top position of an organization and becoming a future corporate leader. This leading professional degree would make my dream true and offer the complete skill package for that.

What are the strategy you are following to complete the CMA education on schedule?
There is a proverb that practice makes a man perfect and this the main strategy I used to follow. Besides, I believe there is no short cut in passing professional exams. Before every exam I used to keep enough time for my preparation and go through the texts thoroughly. Practicing from reference book and answering to the points of the question with related notes for each of the question. I take help from seniors and mentors who have enough knowledge and experience on subject matter. Self-study, group discussion and practicing more and more is the best strategy for me.

What do you expect to get from ICMAB as a student?
In this competitive market one should have sufficient skill on related fields of costing and managerial decision-making process. ICMAB authority continuously trying to improve the student friendly environment and making a student competent in this field. Besides these I expect that ICMAB should arrange more online based Motivational program, Skill development program in this COVID-19 pandemic crisis. Also, they could take this crisis as opportunity and improve infrastructure to provide more online based education and skill development programs for the welfare of the students all over the country. Depression management and soft skills development program should be arranged both online and offline on regular basis.

Could you remember any memorable event during your study at ICMAB?
Out of so many memorable events at ICMAB, one event reminds me the starting of the journey with ICMAB. It was my first examination result date. When I got the result of clearing knowledge level in the first attempt, I acquired the confidence and strength to continue and become a cost and management accountant.

To fulfill your future dream comes true; do you think the CMA qualification will be able to fulfill your Aspirations?
Without having proper knowledge of business, it is tough to make glorious future in corporate sector. I strongly believe CMA qualifications would be the best assist to fulfill my dream of becoming a successful corporate leader. It would surely help in attaining required skills and developing a successful professional career.

[Interviewed by: Sazedul Hoq ACMA]
ICMAB Celebrates International Accounting Day 2020

The 10th November is celebrated globally as the “International Accounting Day”. Institute of Cost and Management Accountants of Bangladesh (ICMAB) celebrated the occasion on Tuesday, 10th November, 2020 with special significance. To observe the day, ICMAB arranged a procession and marched the institute arena. Office bearers, former presidents, present council members, members, students and institute’s employees attended the procession.

Later in the evening, a discussion program was held in the Institute auditorium. Prof. Dr. Md. Hamid Ullah Bhuiyan, Chairman, Financial Reporting Council, Bangladesh graced the occasion as the Chief Guest. Mr. A. K. M. Delwer Hussain FCMA, Vice President SAFA, Past President and Council Member, ICMAB attended as special guest.

Chief Guest Prof. Dr. Md. Hamid Ullah Bhuiyan provided an overview of accounting profession development in the country and highlighted the relentless contribution professional accountants made there. He emphasized on the professional accountants’ involvement in ensuring financial clarity and development of an economy. He illustrated how some big organization faced existential threat and how the entire economy had to struggle due to the manipulation in financial credentials. He agreed, for better financial reporting and transparency, cost audit
should be made compulsory for each organization. He assured that he would take necessary steps for the implementation of cost audit and ensure the better utilization of cost accounting professionals.

Special Guest Mr. A. K. M. Delwer Hussain FCMA described the CMA profession as a symbol of clarity. He represented to the chief guest how CMA professionals could create a great impact on the development and clarity in economic perspective. He suggested that CMA professionals would deserve their fair share in the arena of professional accounting.

President ICMAB Mr. Md. Jasim Uddin Akond FCMA said that ICMAB is dedicated to play its role for the clarity and development of our economy through the practice of Cost and Management accounting. He thanked the chief guest for coming and requested him to take necessary steps for implementing Cost Audit in all limited companies and relevant organizations. He also emphasized on Cost of goods sold certification by professional Cost and Management Accountants.

Dr. Syed Abdulla Al Mamun FCMA, Deputy CEO, CRISL- made a presentation on “International Accounting Day and Professional Aspiration for Sustainable Economic Growth in Bangladesh”. The program moderated by Mr. A.K.M. Kamruzzaman FCMA, Council Member, ICMAB. Welcome address was given by Mr. Md. Munirul Islam FCMA, Secretary, ICMAB. Vote of thanks was given by Mr. Abu Bakar Siddique FCMA, Vice-President, ICMAB.

Cost Audit will be implemented soon-Commerce Secretary
The Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized a discussion session titled "Treatment of Various items of Cost in Light of the Covid-19" on November 16, 2020 evening. Honorable Commerce Secretary of GoB Dr. Md. Jafar Uddin attended the program as Chief Guest while Vice President of South Asian Federation of Accountants (SAFA) and Past President of ICMAB Mr. A. K. M. Delwer Hussain FCMA was present as special guest.

Chief Guest Dr. Md. Jafar Uddin said that, Cost and Management Accounting is a noble profession, it ensures clarity and explanation. Honorable Prime Minister took some strong initiative and efforts, he commented, and that’s why our economy is doing well. Our production and export are going with nice flow and that’s why giving everyone proper stimulus package was possible. He said that he would take necessary steps to implement cost audit at the earliest time. Special Guest Mr. A. K. M. Delwer Hussain FCMA drew attention of chief guest by discussing the importance of cost audit implementation for the development of national economy. He said that, CMA professionals need their proper share and right for working. He thanked the chief guest for always being there for this Institute and its development as a guardian.

ICMAB President Mr. Md. Jasim Uddin Akond FCMA thanked all the honorable guests and participants, and emphasized particularly on ensuring Cost Audit Certification by a professional CMAs for every listed companies. He said that CMA professionals could create a great impact by putting their expertise in ensuring clarity in
various economic aspects. He requested the honorable guests to create more scope for the CMA professionals in relevant fields so that they could give their effort for the development of this country.

Mr. Mohammad Shaheed, FCMA, FCA, Managing Partner, AUDIICOST, Cost & Management Accountants gave a detailed Presentation on “Treatment of Various items of Cost in Light of the Covid-19”. Mr. Abul Bashir Khan FCMA Chief Financial Officer, SMC Enterprise Limited participated as commentator on this presentation.

Vice President of ICMAB Mr. Md. Mamanur Rashid FCMA moderated the entire program interactively and also commented on the topic. He emphasized on the certification of Cost of Goods Sold statement by CMA professionals and the creation of a panel of independent directors from CMA professionals to appoint them in various listed companies.

ICMAB Secretary of ICMAB Mr. Md. Munirul Islam FCMA delivered welcome address. Vice President of ICMAB Mr. Abu Bakar Siddique FCMA offered the vote of thanks to the participants and discussants of the program.

**ICMAB-DCCI MoU Signed**

*ICMAB-DCCI looking forward to work together*

The Institute of Cost and Management Accountants of Bangladesh (ICMAB) and Dhaka Chamber of Commerce & Industry (DCCI) signed a Memorandum of Understanding (MoU) for mutual beneficiary activities on November 24, 2020. Mr. Md. Jasim Uddin Akond FCMA, President ICMAB and Mr. Shams Mahmud, President, DCCI signed the MoU at the ICMAB Bhaban, Nilkhet, Dhaka on 24th November, 2020 on behalf of respective organizations.

Under the MoU, both organization will jointly work and collaborate regarding training courses, seminars, workshops, business conferences, job fair etc. Research activities will be conducted in a mutually agreed manner by both organizations. ICMAB students will get waiver in different training courses conducted by DCCI. Both of the organization will share knowledge management and provide appropriate faculty/instructor for different programs according the need.

ICMAB President Md. Jasim Uddin Akond FCMA emphasized on ensuring cost audit certification by professional CMAs for every listed companies. He also mentioned about certification of ‘cost of goods sold’ statement by CMA professionals. He said that CMA professionals could create a great impact by putting their expertise in ensuring clarity in various economic aspects. He expressed a great hope that with this new relation with a vibrant organization like DCCI, CMA professionals would be able to create a positive impact in our business sector with their technical input.

DCCI President Shams Mahmud said that signing the MoU would usher a new opportunity for both the organization to work together for the betterment of business community. He also appreciated the professionals
of ICMAB for their hard work to ensure transparency in the financial system of a company. He also called upon the ICMAB to work closely with the industries and firms to strengthen both-way relation.

Vice President of South Asian Federation of Accountants (SAFA) and Past President of ICMAB Mr. A. K. M. Delwer Hussain FCMA, Vice President Mr. Abu Bakar Siddique FCMA, Vice President Mr. Md. Mamunur Rashid FCMA, Secretary of ICMAB Mr. Md. Munirul Islam FCMA, Treasurer Mr. Md. Ali Haider Chowdhury FCMA, ICMAB Council Member and Joint Secretary of Finance Ministry (GoB) Mr. Md. Mahful Alam Khan, DCCI Senior Vice President N K A Mobin FCA, DCCI Vice President Mohammad Bashiruddin, Convenor Golam Zialani, leaders from both organization were also present during the signing ceremony.

Inauguration of Skill Development Program and Launching of CMA Directory App

The Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized “The Inauguration Session of Skill Development Program (SDP) for students & Launching of CMA Directory Mobile App” on November 28, 2020 evening. Prof. Dr. Satya Prasad Majumder, Vice Chancellor, Bangladesh University of Engineering and Technology (BUET) joined the program as Chief Guest while Mr. A. K. M. Delwer Hussain FCMA, Vice President, SAFA attended as special guest.

Chief Guest Prof. Dr. Satya Prasad Majumder congratulated the institute for its modern effort to learning and skill development. He said that, accounting is very relevant and important skill for the engineers, because their technical skill also requires the capacity of proper calculation. He gave importance on learning and mentioned that, through technological help we must continue our learning process in this COVID period, make us ready for the upcoming changes and become capable to work in the upcoming era of 4th industrial revolution. He also launched the ‘CMA Directory Mobile app’ during the program.
Special Guest Mr. A. K. M. Delwer Hussain FCMA said that, skill development is such an important thing for any professional that it defines the fate of their career. CMA professionals are very much capable to work for the development of national economy. He requested the chief guest to tell about the CMA professionals on a positive note in various places and incorporate them in different relevant works with BUET.

ICMAB President Mr. Md. Jasim Uddin Akond FCMA thanked all the honorable guests and participants, and specially showed his gratitude to the honorable chief guest for coming to this institute. He mentioned about the importance of skill development for learners from all phase and become capable to give their effort for the development of this country.

Mr. Md. Touhidul Alam Khan FCMA, Additional Managing Director, Standard Bank Limited gave a fluent and connective presentation on “Skill Development: Learn, adapt and accelerate” where he highlighted the importance of skill development portraying various points and areas of soft skills and its proper implementation.

Mr. Md. Mamunur Rashid FCMA Vice-President & Chairman, Education Committee, ICMAB gave a brief description of the institute and the profession and also informed the recent reformation procedures of CMA curriculum for preparing the students competent in the competitive professional field.

Treasurer of ICMAB Mr. Md. Ali Haider Chowdhury FCMA moderated the entire program connecting the audience and discussants and also gave his analysis on the topic.

Secretary of ICMAB Mr. Md. Munirul Islam FCMA delivered the welcome address and Mr. Abu Bakar Siddique FCMA, Vice President, ICMAB offered vote of thanks to the participants and audience of the program.

Success Milestone 2020: Gratitude to the Stakeholders
The Institute of Cost and Management Accountants of Bangladesh (ICMAB) arranged a showcase program titled “Success Milestone 2020: Gratitude to the Stakeholders” where the office bearers of the institute and branch councils for the year 2020 described their activities and achievements in their tenure. The program was held at ICMAB Ruhul Quddus Auditorium, Nilkhet, Dhaka on Tuesday December 15, 2020 evening.

Vice-Presidents of ICMAB Mr. Abu Bakar Siddique FCMA and Mr. Md. Mamunur Rashid FCMA, Secretary Mr. Md. Munirul Islam FCMA, Treasurer Mr. Md. Ali Haider Chowdhury FCMA, Dhaka Branch Council Chairman Mr. A.K.M. Zakaria Hossain FCMA, Vice Chairman Mr. Md. Bakhtiar Alam FCMA, Chattogram Branch Council Chairman Mr. Md. Anisuzzaman FCMA, Khulna Branch Council Chairman Mr. Abdul Motaleb FCMA took part in program to represent their activities and achievements throughout the year. ICMAB President Mr. Md. Jasim Uddin Akond FCMA thanked everyone for being with them and keep their promises for the CMA profession and the Institute.

How Artificial Intelligence (AI) & Block chain will Transform Accounting & Auditing
The Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized a Workshop on “How Artificial Intelligence (AI) & Block chain will Transform Accounting & Auditing” on December 24, 2020 evening using “Zoom Video Conferencing”. Sr. Secretary, ICT Division, GoB, Mr. N M Zeaul Alam attended the program as Chief Guest while Vice President of South Asian Federation of Accountants (SAFA) and Past President of ICMAB Mr. A. K. M. Delwer Hussain FCMA was present as special guest.

ICMAB President Mr. Md. Jasim Uddin Akond FCMA presided over the workshop and Dr. Hazik Mohamed, Managing Director of Stellar Consulting Group (Singapore) & Fintech Expert/Trainer; iFintell Business Intelligence (Malaysia) delivered the presentation on “How Artificial Intelligence (AI) & Blockchain will Transform Accounting & Auditing”. Former Chairman of Dhaka Branch Council of ICMAB Mr. G. M. Omar Faruque Chowdhury FCMA moderated the entire program connecting the audience and discussants and also gave his analysis on the topic. Joint Secretary (E-Service Policy & Act Branch), ICT Division, GoB Mr. A.K.M Abdullah Khan was present as Commentator.

Treasurer of ICMAB Mr. Md. Ali Haider Chowdhury FCMA delivered the welcome address and Mr. Abu Bakar Siddique FCMA, Vice President, ICMAB offered vote of thanks to the participants and audience of the program.

Interactive Session on ICMAB New Curriculum 2021

The Institute of Cost and Management Accountants of Bangladesh (ICMAB) is at the verge of new Syllabus. Present Council has a vision as well as electoral mandate to deploy new Syllabus. In this regards, the Institute organized an interactive Session on “ICMAB New Curriculum 2021” held on December 26, 2020 at 6.30 p.m. physically at ICMAB Ruhul Quddus Auditorium, ICMA Bhaban, Nilkhet, Dhaka as well as online through “BdREN Zoom Video Conferencing”.

Honorable President of the Institute Mr. Md. Jasim Uddin Akond FCMA attended the program as Chief Guest. Vice President of South Asian Federation of Accountants (SAFA) and Past President of ICMAB Mr. A. K. M. Delwer Hussain FCMA and Council Member and Past President Mr. Abu Sayed Md. Shaykhul Islam FCMA were present.

Mr. Md. Mamunur Rashid FCMA, the Chairman, Education Committee & Vice President, ICMAB delivered introductory speech and moderated the program. Vote of thanks was given by Mr. Md. Munirul Islam FCMA, Secretary, ICMAB. Along with them other members of Education Committee were also present at the Dias.
Mr. Md. Syed Abdulla Al Mamun FCMA, Project Coordinator, ICMAB New Curriculum 2021 illustrated the analytical framework of ICMAB Curriculum 2021. He informed the member of the institute that the proposed syllabus would be scalable and flexible. He also added that the New Curriculum 2021 would be aligned with IFAC framework and IAESB Guideline & Framework. He described the flow of Curriculum development. He mentioned that the conversion policy would be such that it would reduce the extra burden from the students. He thanked the team leaders and content writers of the pillars to make this tremendous job happen. He also thanked Mr. Md. Jasim Uddin Akond FCMA, President, ICMAB and Mr. Md. Mamunur Rashid FCMA, the Chairman, Education Committee & Vice President, ICMAB for their dynamic leadership.

There were seven pillars in the New Curriculum. They are: 1) Cost & Management Accounting, 2) Financial Accounting & Corporate Reporting, 3) Economics, Finance & Financial Market, 4) Auditing, 5) Corporate Laws, VAT & Taxation, 6) Information Technology & Business Analytics and 7) Management, Business Planning & Strategy. Respective Leaders of the Pillars presented their respective pillars. Mr. Muhammad Nazrul Islam FCMA presented CMA pillar, Mr. Mohammad Zakaria Masud FCMA presented FACR, Mr. Mannan Bapari FCMA presented EFFM, Mr. Md. Anisuzzaman FCMA presented Audit, Dr. Mohammad Moniruzzaman ACMA presented CLVT, Mr. Md. Faruque Sikder FCMA presented ITBA and Dr. Md. Musfiqur Rahman FCMA presented MBPS.

Around 100 participants were physically present in Auditorium. Around 160 were connected in Zoom. Around 125 were connected in FB live. In total around 400 people participated in the program.
DBC Knowledge based Program on “Foreign Financing and Project Cost Minimization: A Practical Approach (Bank Finance Module-04)

The Dhaka Branch Council (DBC) of ICMAB organized Knowledge based Program on “Foreign Financing and Project Cost Minimization: A Practical Approach (Bank Finance Module-04) of the members on November 12, 2020. Mr. A.K.M. Zakaria Hossain FCMA, Chairman of Dhaka Branch Council presided over the program. Mr. Mannan Bapari ACMA, CERM, Council Member of Dhaka Branch Council and program coordinator offered welcome address and introduced the Resource Person. Mr. Muhammad Mahbubur Rahman Bhuiyan FCMA, FCA, DGM, Accounts and Finance, Abul Khair Group, and Mr. Abu Sufian FCA, DGM, Central Treasury and Finance Division, Abul Khair Group were present as the key note paper presenter. Mr. Md. Amirul Islam, Joint Director, Foreign Exchange Investment Department, Bangladesh Bank was present in the program as the Commentator and Mr. Md. Abdul Aziz FCMA, Past President & Council Member ICMAB and Chairman, Waso Credit Rating Company (BD) Ltd. was present as the Guest of Honor of the session. Mr. Md. Bakhtirar Alam FCMA, Vice-Chairman of DBC, Mr. Safiul Azam FCMA, Secretary of DBC, Mr. Muhammad Nazrul Islam FCMA, Council Member of DBC and Dr. Syed Abdulla Al Mamun FCMA, Council Member of DBC were also present on the program. Ms. Shahana Parvin FCMA (F-0977) nicely conducted the program. A good number of members were present and actively participated in the session. Mr. Rana Protap Ghosh FCMA, Treasurer of Dhaka Branch Council offered vote of thanks.

DBC Outbound Leadership Development Program at Cox’s Bazar
The Dhaka Branch Council (DBC) of the ICMAB organized DBC Outbound Leadership Development Program at Cox’s Bazar with a Sea Cruise to Saint Martin titled “Leadership for Financial Professionals in an Unprecedented Crisis” for CMA members at Hotel Royal Tulip, Cox’s Bazar. The program was held on November 19-22, 2020. DBC Chairman Mr. A.K.M. Zakaria Hossain FCMA presided over the program. Resource person of the program was Mr. Abu Daud Khan, Managing Director and CEO, Enroute International Ltd.

Mr. A.K.M. Delwer Hussain FCMA, Vice-President of South Asian Federation of Accounts (SAFA) was present as the Special Guest. Hon’ble President of the Institute Mr. Md. Jasim Uddin Akond FCMA was present as the Guest of honor. A Large number of ICMAB members participated in the training program.

DBC Knowledge-Based Program on Income Tax Management: “Personal Tax Assessment, Preparation of Tax Return, Reconciliation of wealth statement & life style statement, practical approach”
The Dhaka Branch Council (DBC) of ICMAB organized Knowledge-Based Program on Income Tax Management: “Personal Tax Assessment, Preparation of Tax Return, Reconciliation of wealth statement & life style statement, practical approach” of the members on November 26, 2020. Mr. A.K.M. Zakaria Hossain FCMA, Chairman of Dhaka Branch Council presided over the program. Mr. Safiul Azam FCMA, Secretary of Dhaka Branch Council offered welcome address and introduced the Resource Person. Mr. H. M. Mainuddin Ahammed FCMA, Chief Executive Officer, LSF & Company, Cost & Management Accountants was present as the key note paper presenter. Mr. Jayanta Kumar Podder FCMA, CEO & Principal, Podder & Associates was present in the program as Chief Guest. Mr. Muhammad Nazrul Islam FCMA, Council Member of DBC and Dr. Syed Abdulla Al Mamun FCMA, Council Member of DBC and Mr. Mannan Bapari ACMA, Council Member of DBC were also present on the program. Mr. Md. Zakaria Habib Khan Shishir FCMA nicely conducted the program. A good number of members were present and actively participated in the session. Mr. Rana Protap Ghosh FCMA, Treasurer of Dhaka Branch Council offered vote of thanks.

Inauguration of DBC Annual Indoor Games Fest 2020 and Certificate distribution of DBC Leadership Program at Cox’s Bazar

As a routine event, the DBC of ICMAB organized “Inauguration of DBC Annual Indoor Games Fest 2020 and Certificate distribution of DBC Leadership Program at Cox’s Bazar at the ICMAB Ruhul Quddus Auditorium, ICMAB Bhaban, Nilkhet, Dhaka on December 05, 2020. Mr. Md. Akhter Hossain, Honorable Secretary, Ministry of Youth and Sports, Government of the People’s Republic of Bangladesh was present as the Chief Guest. Mr. A.K.M. Delwer Hussain FCMA, Vice-President of South Asian Federation of Accountants (SAFA) was present as the Special Guest and Mr. Md. Jasim Uddin Akond FCMA, honorable President of ICMAB was present as the Guest of honor.
They jointly inaugurated the inaugural ceremony of the competition. They were accompanied by DBC Chairman Mr. A.K.M. Zakaria Hossain FCMA. A large number of members along with other councilors of DBC were also present in the occasion. The Chief Guest, Special Guest & Guest of Honor distributed Certificates among the participants. A few games particularly the Carom, Table Tennis and Pool Game were inaugurated during that occasion. Mr. Mohammad Mahbubur Rahman FCMA (F-0746) nicely conducted the program.

Celebrate Victory Day

The Dhaka Branch Council (DBC) of The Institute of Cost & Management Accountants of Bangladesh (ICMAB) has celebrated 49th Victory Day through Discussions, Cultural Program, and Kids’ Art Competition on Friday, 18 December 2020 at ICMAB Bhaban, Nilkhet, Dhaka. The Program was presided over by DBC Chairman Mr. A.K.M. Zakaria Hossain FCMA. Mr. AKM Mozammel Haq, MP, Honorable Minister, Ministry of Liberation Wars Affairs, Government of the People's Republic of Bangladesh was present as Chief Guest. Mr. A.K.M. Delwer Hussain FCMA, Vice President of South Asian Federation of Accountants (SAFA) was present as Special Guest.
Mr. Md. Jasim Uddin Akond FCMA, President of ICMAB was present as Guest of Honor. Mr. Ruhul Amin FCMA, Former Vice President of ICMAB and Mr. Md. Ali Haider Chowdhury FCMA, Treasurer of ICMAB jointly inaugurated the program. Among others current office bearers and councilors of ICMAB & DBC and a large number of fellow and associate members of ICMAB and their families were also present and enjoyed the program. The function included Prize Distribution and Cultural program on victory day followed by dinner.
International Accounting Day-2020

Chattogram Branch Council of The Institute of Cost and Management Accountants of Bangladesh (ICMAB) celebrated International Accounting Day-2020 on 10th November, 2020 at CMA Bhaban, Agrabad, Chattogram. Marking the day, the CBC of ICMAB arranged a gathering in CMA Bhaban, CDA R/A, Agrabad, Chattogram and the rally marched around the CDA R/A.

The Chairman of Chattogram Branch Council of ICMAB Mr. Md. Anisuzzaman FCA, FCMA presided over the program and Mr. Imtiaz Alam FCMA, FCA, honorable council member of ICMA Bangladesh led the rally of International Accounting Day-2020. Among others Mr. Mohammad Jamal Mia FCMA, Mr. Md. Arshad Ullah FCMA, Qazi Md. Abul Kashem FCMA, Mr. Golam Kibria FCMA, Mr. Md. Nizam Uddin FCMA, Mr. Shahidul Hoque FCMA attended the rally. In addition to this, the CBC office bearers, Council members of Chattogram Branch Council of ICMAB, honorable Fellow & Associate members and a large number of students and employees of the ICMAB Chattogram Branch attended the rally spontaneously.

Discussion on “The Teaching of Prophet Muhammad (PBUH) for the Professional Life”
Chattogram Branch Council of The Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized a discussion program on “The Teachings of Prophet Muhammad (PBUH) for the Professional Life” on Thursday, November 19, 2020 evening at CMA Bhaban, CDA R/A, Agrabad, Chattogram.

Mr. Md. Anisuzzaman FCMA, FCA, Chairman, Chattogram Branch Council of ICMAB presided over the program while Dr. Mofizur Rahman Al-Azhari, Professor, Quran and Hadith, International Islamic University Chattogram (IIUC) was present as the discussant of the program. Mr. Mohammad Arif ACMA, FCA, Vice-Chairman, CBC, ICMAB, Mr. Mohammad Ahsan, FCMA, Treasurer, CBC, ICMAB were also present in the program.

Dr. Rahman in his speech described about the Prophet Muhammad’s (PBUH) teaching of economic, political, social and professional life. He also added that how we could lead our professional life by following his teaching.

After the discussion, Dr. Rahman answered the questions of esteemed members of the Institute on the topic.

A Large number of fellow and associate members of the institute were present in the program. The refreshment of the program was arranged by Mr. Imtiaz Alam FCA, FCMA, Chairman, Infinity Group of Companies & Corporate Support Ltd. and National Council Member, ICMAB.

The program was nicely conducted by Mr. Shahidul Hoque FCMA, Secretary, CBC and vote of thanks was given by Mr. Mohammad Arif FCA, FCMA, Vice-Chairman, CBC.

CPD on “Operation and Risk in RMG Financing and Way of Risk Mitigation”.

Chattogram Branch Council of The Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized a virtual CPD program on “Operation and Risk in RMG Financing and Way of Risk Mitigation” on Thursday, 28 November, 2020 evening at CMA Bhaban, CDA R/A, Agrabad, Chattogram.

Mr. Md. Anisuzzaman FCMA, FCA, Chairman, Chattogram Branch Council of The Institute of Cost and Management Accountants of Bangladesh (ICMAB) presided over the program while Mr. Mohammed Mohiuddin FCMA, Managing Director, Island Securities Ltd., Chattogram and Past President, ICMAB was present as the Chief Guest of the program. Mr. Kayesh Chowdhury, Regional Corporate, Corporate Banking Division, Brac Bank Ltd., Chattogram was present as Session Chairman and the key note paper was presented by Mr. Mohammad Rafiqul Islam CDCS, CSDG, CITF, (Qualified Trade Finance Specialist-QTFS), FVP & Head of Branch, Dhaka Bank Limited and Chairman, Learning Line Bangladesh.
In his speech Mr. Islam highlighted the operational activities including risk and its management in RMG financing and the way of risk mitigation in this sector. He also suggested how we could sustain this thriving sector and mitigating the challenges during the pandemic.

At the time of speech Mr. Mohammad Muhiuddin FCMA expressed his views about how we could take the opportunities from global pandemic. He also warned that if we were not aware of the system of globalization, we would fail to catch billion dollar foreign market.

At last the session chairman thanked Chattogram Branch Council for arranging such a timely suited program and invited him as session chairman. A Large number of fellow and associate members of the institute were present in the program. The program was nicely conducted by Mr. Md. Shahidul Hoque FCMA, Secretary, CBC, ICMAB and vote of thanks was given by him.

“Class Orientation Program for the Session of July-December, 2020”

Chattogram Branch Council of the Institute of Cost and Management Accountants of Bangladesh (ICMAB) has organized “Class Orientation program” for July-December, 2020 session on December 04, 2020 at CMA Bhaban, Agrabad, Chattogram.

Mr. Md. Anisuzzaman FCA, FCMA, Chairman, Chattogram Branch Council of ICMAB presided over the Program while Mr. Md. Jasim Uddin Akond FCMA, honorable President, ICMAB was present on the program as Chief Guest. Also Mr. Md. Ali Haider Chowdhury FCMA, Treasurer, ICMAB and Mr. Imtiaz Alam FCMA, FCA, national Council member, ICMAB and Chairman, Infinity group of Companies & Corporate Support Ltd. were present in the program as special guest and guest of honor respectively. Mr. Imtiaz Alam FCA, FCMA in his speech congratulated both the newly admitted students and the newly qualified CMAs of ICMAB, Chattogram Branch. He highly motivated and encouraged the students to work hard for completing CMA qualification at the earliest possible time.

In the discussion of professional matters, Mr. Md. Ali Haider Chowdhury explained the scope of CMA professionals in the government, semi-government, corporation, autonomous body and corporate body in home and abroad and how they could contribute in their workplace through this pandemic.
“In spite of this pandemic, we are continuing our whole educational and professional activities through online by maintaining health security and social distance” said the president. At the end of his speech, he expressed his satisfaction for being able to present in the program and thanked CBC for arranging such kind of program.

A large number of senior Fellow and Associate members of ICMAB based in Chattogram region and students of Chattogram Branch attended the program. The whole program was nicely conducted by Mr. Shahidul Hoque FCMA, Secretary, CBC and vote of thank was offered by Mr. Mohammed Arif FCA, FCMA, Vice-Chairman, CBC.

Discussion on “Professional Matters”

Chattogram Branch Council of the Institute of Cost and Management Accountants of Bangladesh (ICMAB) organized a discussion on “Professional Matters” at CMA Bhaban, CDA R/A, Agrabad, Chattogram as on December 04, 2020.

Mr. Md. Anisuzzaman FCA, FCMA, Chairman, Chattogram Branch Council of ICMAB presided over the Program while Mr. Md. Jasim Uddin Akond FCMA, President; ICMA Bangladesh was present on the program as Chief Guest. Mr. Md. Ali Haider Chowdhury FCMA, Treasurer, ICMA Bangladesh and Mr. Imtiaz Alam FCMA, FCA, National Council Member, ICMA Bangladesh were present in the program as special guests and guest of honor respectively. The Chief Guest in his speech discussed about different matters related to the profession and the development as well as modernization of CMA profession. A large number of Fellow and Associate members of ICMAB Chattogram region attended the program.
Khulna Branch Council (KBC) of ICMAB organized a Table Tennis Tournament on 27-28 November 2020. Mr. Abdul Motaleb FCMA, honorable Chairman of KBC inaugurated the Tournament. A good number of Fellow and Associate members of the Institute and students of KBC participated in the tournament. Mr. Iresh Kumar Mandal & Mst. Masuma Akter Anny became champion and Mr. Md. Mominur Islam & Mr. Md. Asif Hossain become Runner-up in the tournament.

Mst. Masuma Akter Anny was selected Man of the Match. After completion the tournament, KBC arranged a prize giving ceremony followed by a dinner. Secretary of KBC Mr. Azizur Rahman ACMA, Treasurer Mr. A. K. M. Nazmul Alam ACMA and a good number of fellow and associate members as well as students of Khulna Branch were present on the occasion.

Reception to Sirajum Munira Mou for achieving MBBS degree
Mst. Sirajum Munira Mou, daughter of Prof. Sheikh Ziaul Islam FCMA and Mrs. Tahmina Islam achieved MBBS degree in this year. To celebrate this happy moment, Khulna Branch Council (KBC) of ICMAB organized a grand reception program on December 20, 2020 at CMA Bahaban, Khulna. Honorable Chairman of KBC Mr. Abdul Motaleb FCMA handed over an honorary crest to Mst. Sirajum Munira Mou. Secretary of KBC Mr. Azizur Rahman ACMA, Treasurer Mr. A. K. M. Nazmul Alam ACMA, a good number of fellow and associate members and a large number of students of Khulna Branch were present on the occasion.

Exclusive Training program on Basic Excel

Khulna Branch Council (KBC) of ICMAB organized a 10-days long exclusive training program on Basic Excel at ICMAB Khulna Branch, Khulna. Mr. Mithun Dutta, Senior Student of ICMAB Khulna Branch was the resource person of the training program.

The training program was specially designed for the students of ICMAB Khulna Branch to develop their basic knowledge on MS Excel. The program was inaugurated by Mr. Abdul Motaleb FCMA, Chairman of KBC. More than 30 students of Khulna Branch participated in the training program.

We Mourn

Mr. Shubash Chandra Dutta FCMA (F-0069) breathed his last on Friday, 13 November, 2020 at Square Hospital, Dhaka infected by Corona Virus). He was suffering from liver disease.
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