PERCEPTION OF PROFESSIONAL ACCOUNTANTS ABOUT THE APPLICATION OF ARTIFICIAL INTELLIGENCE (AI) IN AUDITING INDUSTRY OF BANGLADESH

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ABSTRACT

Globalization and frequent evolution of technology keeps putting pressure on professionals mastered in different fields which does not leave accountants and auditing professionals behind. With frequent adoption of modern technologies like AI, it has become incumbent on every professional to adopt and regularize the use of such technologies in respective fields. Accounting and auditing, previously a tedious work, has become faster and easier through technologies like knowledge based systems. Although the concept of AI is relatively new in the world of accounting, it is being used extensively by some firms and practitioners and continues to evolve its ways. However, within the context of Bangladesh, the application of AI is still in its infant’s stage. This study aims at exploring the perceptions of accounting professionals about the application of AI in their profession. Respondents of this study are audit practitioners employed in different auditing firms across Dhaka city. We have collected data through five point Likert scale and a questionnaire survey. We have found a variety of perceptions about this technology from the practitioner’s. Result indicates that professionals in Bangladesh still are not fully aware of AI use in auditing. Certain problems like incurrence of huge cost, lack of information security and unsecured jobs create hindrance for AI to get rooted in the auditing industry of Bangladesh.

Contribution/Originality: This study documents the perceptions of professionals about use of artificial intelligence (AI) in the accounting and auditing industry of developing country such as Bangladesh. It finds that there is an unexplored and untapped market for AI in Bangladesh, which can be utilized if proper policy is taken by authorities.

1. INTRODUCTION

Artificial Intelligence inventions continue have transformative impacts on all the sectors of the economy from tech to finance, communications, energy, healthcare, mobility or manufacturing that generate lots of data (Big Data). Artificial Intelligence has also tapped into the insurance industry as Japanese Insurance firms have adopted AI application in calculating insurance payouts that has far better efficiency than humans. Similarly, human pathologists are beat by AI has been able to predict patient survival times for some cancerous tumors. The accounting sector isn’t remaining untapped either. But for long, accountancy profession has lagged behind in comparison to other industries in digitization because of high regulatory requirements for integrity of accounts. But Big Data has brought upon a new paradigm for accountants. With this, newer and newer relevant data has become
available. Along with that, video, audio, and textual information have been made available via Big Data that is able to improve managerial accounting, financial accounting, and financial reporting practices. It is predicted that Big Data will vastly improve effective management control systems and budgeting processes in managerial accounting. In financial accounting, Big Data will bring forth relevant accounting information, thereby enhancing transparency and stakeholder decision making. In reporting, Big Data can assist with the creation and refinement of accounting standards, helping to ensure that the accounting profession will continue to provide useful information as the dynamic, real-time, global economy evolves. Currently AI and Machine Learning are automating book keeping, reconciliations and much more.

With breakthrough innovations in the accounting industry, auditing practices are ever evolving. It is not only enhancing auditing quality but also eliminating time-consuming and manual labor of professionals. As more resources and tools are available to accounting professionals, they can save time by eliminating dreary processes which give them more opportunities in other business strategies. Keeping up with the revolutionary changes in all the sectors other than the accounting industry, it is important to explore the prospects of AI in auditing to facilitate auditing practices with more ease and simplicity. However, Bangladesh is yet to adopt artificial intelligence and other modern technological means in auditing practices extensively. Artificial intelligence and other technological systems are being used at a small scale across the firms in Bangladesh. Thus, this study aims at exploring the current scenario of the applications of artificial intelligence in Bangladesh. Due to limited resources and time, only Dhaka-based audit firms have been taken into account for collecting primary data. This study explores and concludes the current scenario of the auditing industry of Bangladesh in terms of using innovative technologies in daily practices.

2. LITERATURE REVIEW

Expert systems have aided in applying heuristic approach in case of decision-making processes for further developments, such as understanding and learning natural languages (O’Leary & Watkins, 1989). They are also being applied commercially for their sophistication. They remain valuable tools for auditing as they increase auditor efficiency by addressing problems like audit program development, internal control evaluation, and sample size determination (Brown & Murphy, 1990).

An innovative technology like AI inspects every transaction rather than just a sample (Flowerday, Blundell, & Von Solms, 2006). Auditing practices now-a-days also have to deal with numerous fraudulent cases, as concluded by a study (Ata & Seyrek, 2009). Data Mining techniques could facilitate auditors in the task of fraud detection as the technique claims to have advanced classification and prediction capabilities. The result of the study showed that the experimented financial statement data contained falsification indicators. Thus, it was proposed that coupling with this information, Data Mining algorithms, could compute models with accurate classifications. It has been envisioned that Artificial Intelligence incorporated with Data Security Standards (DSSs) can offer flexible solutions by adapting with ever changing conditions. Along with that, they can also be used train to novices through simulation training and cognitive mapping of various decision schema. Audit firms and DSS designers will require to constantly monitor the effect of DSS designs on user’s trust, reliance and ability to gain experience by using the system (Hunton & Rose, 2010). Another concept related to technology in auditing is continuous auditing (CA), which is a technological innovation of the traditional audit process. A study (Zhao, Yen, & Chang, 2004) has claimed that to process financial reports required by investors and other users, CA is the right method to compute those solutions. A future proposition regarding continuous auditing was given in a study (Chan & Vasarhelyi, 2011) that claimed that it will progressively integrate and eventually replace the traditional audit paradigm. There will be lower frequencies of error occurring over more limited set of sequences in information systems. While internal auditors will require to investigate irregularities or exceptions and deal with audit procedures that require judgment and professional skepticism, the external auditors will to become independent certifiers of internal audit’s
CA system. Transactions of the entire population will be tested and monitored which will be more produce more effective results and also increase the probability of detecting material errors, omissions and fraud. Fraud can also be detected using dual level analysis of transaction data and account balances. It will also help resolve management collusions. Robotic Process Automation has consequently disrupted the traditional approach of auditing. Robots are expected to perform audit tasks with zero errors if they are trained perfectly. This will produce higher quality data along with better quality reports and fewer down line error-correction functions. They can also leave trusted and reliable historic data. Theoretically, RPA with auditing seems simpler as robots are limited to the scope of the prescribed script for performing. This process can provide better through the reduction of time between invoice and payment, application and loan approval, or purchase order and fulfillment, satisfaction increases for both the customer and supplier. Human interaction will be kept to a minimal that will lead to improved security. Better security will also be ensured as it will replace outsourced functions with in-house software robots (Moffitt, Rozario, & Vasarhelyi, 2018). In a study (Askary, Abu-Ghazaleh, & Tahat, 2018) showed that quality accounting information can be produced by removing internal control systems weakness through applying Artificial Intelligence. And this could be achieved by the collaboration of accounting profession and Artificial Intelligence expertise that would help functionally develop software as well as apply internal control systems.

Another technological application that aids auditing is artificial neutral network. In a study (Wu, 1994) predictive accuracy of audit neural network was seen to be 94 per cent and 95 per cent for two-layer and three-layer respectively. This proved that there was a high level of correspondence between actual classification and resulting network classification. Neutral network can also be significant for fraud detection as shown in a study (Green & Choi, 1997). The study had an aggregate error rate of 25 per cent and so it was suggested that there should be further research with neutral network and that it should also be adopted by professionals. Similar is the Mahalanobis-Taguchi System (MTS). In a study (Lee et al., 2015) the predictive powers of MTS and logistic regression methods for reduced question items were seen to be 93.8% and 92.5%, respectively. Neutral network method is 100%. With such results, it was concluded that the prediction model constructed using the feature selections to reduce the number of attributes could effectively lower the number of questionnaire items while maintaining high prediction accuracy.

In recent times, in order to reduce expenses and facilitate auditing, usage of special tools such as checklists and questionnaires have been adopted to identify security standard gaps and persisting security measures (Kanatov, Atymtayeva, & Yagaliyeva, 2014). Systematic audits is the primary step that has to be taken for fair and biased informed model selection decisions that is achievable through AI tools (Saleiro et al., 2018).

3. CONTEXT OF THE STUDY AND RESEARCH QUESTIONS

With the continual advancement of technology and the emergence of rigorous competitive environment, Public accounting firms began to adopt more sophisticated means for the purpose of decision-making (Dungan & Chandler, 1985). A comprehensive study (Baldwin, Brown, & Trinkle, 2006) suggested that research on AI for auditing tasks will improve with the collaboration of AI and accounting researchers. The gap between accounting Domains and AI domains should be minimized to improve auditing and assurance. Though most AI research in auditing has involved expert systems, it is claimed that more complex problems can be solved efficiently by using more complex AI applications like fuzzy logic, neutral networks and other techniques that have yet not been applied in accounting. With immense pressure on modern day auditors to progress further in corporate governance as an opportunity, ICT-based assistances are creating new dimensions in the modern world (Omoteso, 2012). AI has positively influenced the field of accounting through automation and using systems that have established their position in regular business activities (Huq, 2014). Artificial intelligence with its high-performance computing power and storage capabilities, has combined with accounting after years of extensive research. It is believed that in the next decade, the accounting industry will be developed by even newer technologies like big data and block chain.
technology. Individuals associated with the accounting industry who have to perform repetitive and standardized accounting operations will be replaced by a form of artificial intelligence which is more advanced and precise. With the invention of “Deloitte Financial Robot, it has further been proved that artificial intelligence is continually disrupting traditional ways through its deep application (Shi et al., 2020).

With the advent of AI in the accounting industry, it is important to know if the accounting profession will be driven by automation (Issa, Sun, & Vasarhelyi, 2016). It is also important to investigate the future of auditors as the study (Issa et al., 2016) concludes that this automation will end up replacing auditors as it is capable analyzing situations and drafting audit plans accordingly. It also raises a significant question as to how AI will transform today’s audit environment.

Auditing of Financial Statements of Companies is compulsory in Bangladesh. Before acceptance of the International Standards of Accounting (ISA) by the institute of ICAB, detection and prevention of errors and frauds were the two most important objectives of auditing in Bangladesh. At present Bangladesh follows ISA guidelines in auditing, which is why AI would definitely speed up the entire process of auditing. Successful implementation of AI requires proper data management and digital infrastructure, smooth internet connectivity, skilled resources, adequate investment, high grade research and development facilities. Certain aspects like ethics, data privacy, security and regulations are crucial for AI. All these aspects are expected to be addressed in this national strategy.

Bangladesh had been conforming to modern views and accepting more digitized version in different aspects. A common observation that traditionally exists regarding Government policies and regulations in Bangladesh is that these sometimes may fail to cover dynamism and variation in the corresponding arena. The history of Artificial Intelligence in Bangladesh is not that old rather it has come to light in the recent decade. At present time accountants have started to accept and incorporate AI in their daily work, even though the audit industry in Bangladesh still might treat AI as a foreign concept, but they have initiated the trainings and laid a foundation for the use of AI in audit procedures. If the standard for AI can be maintained in audit as it has been for other sector, it can then best suit with the relevance and serve the needs of the country. Based on the above gap in the literature, and within the context of Bangladesh, this study aims to answer the following research questions-

(Q1) What is the current scenario of AI in the auditing industry of Bangladesh?
(Q2) What is the perception of Professional Accountants about AI in the auditing industry of Bangladesh?
(Q3) What are the problems of implementing AI in the auditing practices across firms in Bangladesh?

4. RESEARCH METHODS

Both primary and secondary sources were evaluated to collect data. Primary data were used for the purpose of analyzing the perception of artificial intelligence in auditing in the context of Bangladesh. The survey was conducted among auditing professionals employed across different auditing firms in Dhaka city - the capital city of Bangladesh. The survey was conducted in 2020. Descriptive statistics and one sample t test is used to analyze the data and test the hypothesis.

4.1. Sample Design

Convenience sampling was for this study due to the shortage of time and resources. Convenience sampling type of nonprobability sampling where members of the target population that meet certain practical criteria (easy accessibility, geographical proximity, availability etc.) are included in sampling (Dörnyei, 2007).

4.2. Questionnaire Design

A structured questionnaire was used as a tool for data collection. Responses to all the statements in the questionnaire were measured on a five-point scale ranging from 1 to 5 with 1 indicating strongly disagree and 5
indicating strongly agree. This method is especially suited for questionnaire for its suitability for the applications of multifarious statistical tools used in marketing and social research study (Malhotra & Galletta, 1999).

4.3. Hypothesis Development

The following hypotheses were developed to complete this research. The null hypothesis was:

\[ H_0: \text{There is no impact of Artificial Intelligence on auditing in Bangladesh.} \]

The alternative hypotheses used in this study are:

\[ H_1: \text{There is an impact of auditors having AI related knowledge on auditing in Bangladesh.} \]
\[ H_2: \text{There is an impact of AI on auditing accuracy in Bangladesh.} \]
\[ H_3: \text{There is an impact of computerization on audit work in the auditing industry of Bangladesh.} \]
\[ H_4: \text{There is a threat to security in operating audit work through AI.} \]
\[ H_5: \text{There is job uncertainty due to the adoption of AI in auditing in the auditing industry of Bangladesh.} \]
\[ H_6: \text{There is a relationship between AI and costing in AI operated auditing in the auditing industry of Bangladesh.} \]
\[ H_7: \text{There is an impact of AI on assuring internal control while auditing in the auditing industry of Bangladesh.} \]
\[ H_8: \text{There is an impact of AI based knowledge in auditing in the auditing industry of Bangladesh.} \]
\[ H_9: \text{There is an impact of AI on internal auditing of large corporations in Bangladesh.} \]
\[ H_{10}: \text{There is an impact of AI on skill transformation of auditors in the auditing industry of Bangladesh.} \]

4.4. Respondent’s Profiles

Table 1. Demographic profile of respondents.

| Demographic Profile | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------|-----------|---------|---------------|--------------------|
| Gender              |           |         |               |                    |
| Male                | 32        | 59.3    | 59.3          | 59.3               |
| Female              | 22        | 40.7    | 40.7          | 100.0              |
| Audit Firm          |           |         |               |                    |
| KPMG, 4 years       | 17        | 31.5    | 31.5          | 31.5               |
| KPMG, Chartered Accountant | 4   | 7.4    | 7.4          | 38.9               |
| KPMG, 3 years       | 24        | 44.4    | 44.4          | 83.3               |
| ACNABIN, 5 years    | 2         | 3.7     | 3.7           | 87.0               |
| ACNABIN Chartered Accountants, for 3 years. | 4 | 7.4 | 7.4 | 94.4 |
| ACNABIN, 4 years    | 1         | 1.9     | 1.9           | 96.3               |
| ACNABIN, 3 years    | 2         | 3.7     | 3.7           | 100.0              |
| Awareness of use of AI in individual firm | | | | |
| Yes                 | 33        | 61.1    | 61.1          | 61.1               |
| No                  | 21        | 38.9    | 38.9          | 100.0              |
| Use of personalized auditing software | | | | |
| Yes                 | 50        | 92.6    | 92.6          | 92.6               |
| No                  | 4         | 7.4     | 7.4           | 100.0              |
| Awareness of AI systems | | | | |
| Robotic technology  | 3         | 5.6     | 5.6           | 5.6                |
| Knowledge Based System | 39     | 72.2   | 72.2         | 77.8               |
| None of these       | 12        | 22.2    | 22.2          | 100.0              |

Table 1 shows that 54 respondents participated in the study and of which 59.3% were male and 40.7% were female. Respondents were affiliated with auditing firms across Dhaka city. The respondents belonged to 2 firms – KPMG and ACNABIN. Of them, 45 respondents were employed at KPMG while the rest 9 were employed at ACNABIN. 18 of them had been working in their respective institution for 4 years and Chartered Accountants were least in number, which was 8 years. Respondents were also asked if they were aware of the use of AI in their firms, to which 61% had replied yes. 92.6% of the employees replied that their firms has personalized auditing softwares...
installed for audit procedures. Most replied that they had been acquainted with Knowledge Based Systems (72.2%) followed by 22.2% never having heard of any of the systems. 5.6% respondents responded that they were aware of robotics technology.

5. FINDINGS & INTERPRETATION

5.1. Scenario of AI in the Auditing Industry of Bangladesh

There are over 170 accounting firms in Bangladesh and each come with their own working strategy and corporate environment. Since only 2 firms have been taken into consideration for the purpose of this study, it cannot be concluded that the results of the study depict the entire scenario of AI in auditing. However, both the surveyed firms (KPMG and ACNABIN) are MNCs, which gives us a rational idea that AI is being rigorously implemented on multinational accounting firms in Bangladesh. Since 61.1% of the respondents were aware of the use of AI in their respective firms, it can be presumed that it has been 3 years or more since AI had been adopted in the auditing practices of surveyed firms. 92.6% of the respondents agreed that their firm was using personalized audit softwares for auditing. Although it is difficult to ascertain how extensively AI is being implemented in the auditing industry of Bangladesh, it can be concluded that auditing practices are computerized.

5.2. Perception of Professional Accountants on AI in the context of Auditing Practices across Firms in Bangladesh

In Table 2 survey results show that professionals agree or strongly agree to the fact that advent of AI poses direct threat to the jobs of grass-root employees. AI has made tedious and highly manual auditing tasks a lot simpler and quick. Grass-root accountants were previously hired primarily for the purpose of computing framework and data input for auditing. But now since AI can process the 10 hours' worth effort of hundreds of accountants in just minutes with a single click, it does intimidate the accountants.

Most of them also agreed or strongly agreed that AI has made most of the audit work computerized and auditors only required to review them. So it can be concluded that most of the audit work is heavily computerized, that poses a threat to grass-root and mid-level auditing professionals. Not only that, most professionals thought that they were under the pressure of skill transformation due to the advent of AI. Hence, auditors will be at risk if they do not familiarize themselves with AI softwares and their implementation.

| One-Sample Statistics                                      | N  | Mean | Std. Deviation | Std. Error Mean |
|------------------------------------------------------------|----|------|----------------|-----------------|
| Comprehensible idea about the impact of Artificial Intelligence (AI) on audit procedure | 54 | 3.61 | .656           | .089            |
| Improved accuracy of the Audit procedures through AI       | 54 | 3.37 | .623           | .085            |
| Computerization of audit work as a result of AI            | 54 | 3.81 | .754           | .103            |
| Threat to data security                                    | 54 | 3.31 | 1.343          | .183            |
| Threat to job security of grass-root employees             | 54 | 3.98 | .629           | .086            |
| Huge Cost                                                  | 54 | 4.43 | .602           | .082            |
| Internal Control                                           | 54 | 2.83 | 1.397          | .190            |
| AI based knowledge                                         | 54 | 4.13 | .616           | .084            |
| Internal audit of large corporations                       | 54 | 3.67 | 1.414          | .192            |
| Skill transformation of individual auditors                | 54 | 3.56 | .664           | .090            |

Table 3 shows the one sample t-test, where we can see there is a statistically significant difference between the means (p <0.05) of all the factors in consideration. That’s why we can reject the null hypotheses and accept the ten alternative hypotheses of this study.

Overall, this test of hypotheses shows that there is a significant impact of AI variables on the auditing practices of Bangladesh.
Table 3. One Sample T-Test.

| Hypothesis                                                                 | t     | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | Hypothesis |
|---------------------------------------------------------------------------|-------|-----|----------------|-----------------|----------------------------------------|------------|
| There is an impact of auditors having AI related knowledge on auditing in Bangladesh | 40.429 | 53  | .000           | 3.611           | 3.43 - 3.79                           | Accepted   |
| There is an impact of auditors having AI related knowledge on auditing in Bangladesh | 39.734 | 53  | .000           | 3.370           | 3.20 - 3.54                           | Accepted   |
| There is an impact of computerization on audit work in the auditing industry of Bangladesh | 37.169 | 53  | .000           | 3.815           | 3.61 - 4.02                           | Accepted   |
| There is a threat to security in operating audit work through AI           | 18.132 | 53  | .000           | 3.315           | 2.95 - 3.68                           | Accepted   |
| There is job uncertainty due to the adoption of AI in auditing in the auditing industry of Bangladesh | 46.501 | 53  | .000           | 3.981           | 3.81 - 4.15                           | Accepted   |
| There is a relationship between AI and costing in AI operated auditing in the auditing industry of Bangladesh | 54.031 | 53  | .000           | 4.426           | 4.26 - 4.59                           | Accepted   |
| There is an impact of AI on assuring internal control while auditing in the auditing industry of Bangladesh | 14.899 | 53  | .000           | 2.833           | 2.45 - 3.21                           | Accepted   |
| There is an impact of AI based knowledge in auditing in the auditing industry of Bangladesh | 49.286 | 53  | .000           | 4.130           | 3.96 - 4.30                           | Accepted   |
| There is an impact of AI on internal auditing of large corporations in Bangladesh | 19.053 | 53  | .000           | 3.667           | 3.28 - 4.05                           | Accepted   |
| There is an impact of AI on skill transformation of auditors in the auditing industry of Bangladesh | 39.378 | 53  | .000           | 3.556           | 3.37 - 3.74                           | Accepted   |

Table 4 presents that the value of correlation coefficient, R= 0.717 indicates that there is a strong positive correlation between the impact of AI in auditing of Bangladesh and the variables. Here, R square value indicates the overall impact of the independent variables on the dependent variable. So, the independent variables have 41.4 percent impact on the use of AI in auditing practices in Bangladesh. Hence the test is significant.

Table 4. Model Summary

| Model Summarya | Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate |
|----------------|-------|------|----------|-------------------|---------------------------|
|                | 1     | .717 | .514     | .414              | .508                      |

Note: a. Predictors: (Constant), Large corporations should develop their internal audit function to the level of using AI systems to strengthen their internal control systems and reduce business risks. The proper knowledge and awareness about AI influences the level of acceptance and efficiency of auditors while using the technology. Grass root accountants are at risk of losing their jobs due to the advent of artificial intelligence in Audit industry. The threat to the security of data is higher when everything is digitized. AI comes with huge cost of building, updating and maintaining systems along with the inhibition of novices’ knowledge base. Using artificial intelligence has improved accuracy of the Audit procedures to a significant extent. Due to artificial intelligence, a large amount of audit work has been handed over to the computer, and auditors only need to review it. Internal Control can be easily ensured through the use of Artificial Intelligence. Do you have a comprehensive idea about the impact of Artificial Intelligence (AI) on audit procedure?

b. Dependent Variable: The firm you are currently working in has utilized artificial intelligence to their advantage in terms of Audit and Assurance services.

Table 5 reveals that multiple regression analysis is performed to examine the relationship between the independent variables with the topic. Ten hypotheses were analyzed and results are shown in the table. The F-
statistics produced (F=5.162) is significant at 1 percent level (Sig. F <0.01), consequently confirming the fitness of the model.

Table 5. ANOVAa.

| Model      | Sum of Squares | df | Mean Square | F     | Sig.  
|------------|----------------|----|-------------|-------|-------
| Regression | 11.983         | 9  | 1.331       | 5.162 | .000
| Residual   | 11.350         | 44 | .258        |       |       
| Total      | 23.333         | 53 |             |       |       

Note: a. Dependent Variable: The firm you are currently working in has utilized artificial intelligence to their advantage in terms of Audit and Assurance services.
b. Predictors: (Constant), Large corporations should develop their internal audit function to the level of using AI systems to strengthen their internal control systems and reduce business risks. The proper knowledge and awareness about AI influences the level of acceptance and efficiency of auditors while using the technology. Grass root accountants are at risk of losing their jobs due to the advent of artificial intelligence in Audit industry. The threat to the security of data is higher when everything is digitized. AI comes with huge cost of building, updating and maintaining systems along with the inhibition of novices knowledge base. Using artificial intelligence has improved accuracy of the Audit procedures to a significant extent. Due to artificial intelligence, a large amount of audit work has been handed over to the computer, and auditors only need to review it. Internal Control can be easily ensured through the use of Artificial Intelligence. Do you have a comprehensible idea about the impact of Artificial Intelligence (AI) on audit procedure?

5.3. Problems in Implementing AI in the Auditing Industry of Bangladesh

Although the use of AI is in practice across multinational accounting firms in Bangladesh, it still is a long way till AI can be applied extensively in all audit and accounting firms to completely transform the industry. Our research finds some drawbacks in the use of AI. For instance, many accounting practitioners agreed that AI incurs huge cost when it comes building, obtaining and maintaining systems and also training beginners. Bangladesh having a low economy still does not possess the financial capability and resources to be able to fully implement existing technologies in par with other countries. Besides, as discussed before, it poses a huge threat to young professionals as their jobs are more at stake as audit procedures continue to become more and more simplified. Another problem is that it poses a huge threat to data security when it comes to digitalized data processing. Bangladesh having weak digital infrastructure directly impose a threat to information security in the audit industry. However, over the period these problems will be solved with government and private sector interventions.

6. CONCLUSION

This study aimed to understand about the current perception of AI on the auditing industry of Bangladesh. Results reveal that 3 factors dominantly impact the use of AI in Bangladesh. These are comprehensible idea of audit practitioners about AI, computerization of audit work and skill transformation of auditors. Since artificial intelligence is new to Bangladesh, more research should be conducted on AI and accounting industry of Bangladesh in order to forecast future uses for it in the country.

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APPENDIX

Questionnaire Sent to Practitioners

1. Name

2. Gender
   - Male
   - Female

3. Which Audit Firm are you currently working in and for how long have you been working here?

4. Are you aware of the use of artificial intelligence in the firm you're working in currently?
   - Yes
   - No

5. Does the firm have a personalized auditing software to perform usual audit procedures?
   - Yes
   - No

6. Do you have any idea about the following artificial intelligence based systems?
   - Expert System
   - Neutral Network Technique
   - Robotic technology
   - Knowledge Based System
   - None of the above

|                                           | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|-------------------------------------------|----------------|-------|---------|----------|-------------------|
| 7. Having comprehensible idea about the impact of Artificial Intelligence (AI) on audit procedure. |                 |       |         |           |                   |
| 8. Using artificial intelligence has improved accuracy of the Audit procedures to a significant extent. |                 |       |         |           |                   |
| 9. Due to artificial intelligence, a large amount of audit work has been handed over to the computer, and auditors only need to review it. |                 |       |         |           |                   |
| 10. The threat to the security of data is higher when everything is digitized. |                 |       |         |           |                   |
| 11. Grass root accountants are at risk of losing their jobs due to the advent of artificial intelligence in Audit industry. |                 |       |         |           |                   |
| 12. AI comes with huge cost of building, updating and maintaining systems along with the inhibition of novices’ knowledge base |                 |       |         |           |                   |
| 13. Internal Control can be easily ensured through the use of Artificial Intelligence |                 |       |         |           |                   |
| 14. The completion of accounting work is impossible only by relying on accounting software based on programmatic and regularization. |                 |       |         |           |                   |
| 15. The proper knowledge and awareness about AI influences the level of acceptance and efficiency of auditors |                 |       |         |           |                   |
|   |   |   |
|---|---|---|
| 16. | Large corporations should develop their internal audit function to the level of using AI systems to strengthen their internal control systems and reduce business risks. |
| 17. | Artificial intelligence puts auditors under the pressure of skill transformation. |
| 18. | The firm you are currently working in has utilized artificial intelligence to their advantage in terms of Audit and Assurance services. |