

## **NAVIGATING THE FOURTH INDUSTRIAL REVOLUTION: BRIDGING EMPLOYER EXPECTATIONS AND ACCOUNTING GRADUATES' SKILLS IN BANGLADESH**

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### **Abstract**

*The Fourth Industrial Revolution (4IR) has changed the corporate environment worldwide and called for a workforce with sophisticated soft skills and advanced technical ability. With an eye toward the skills gap in the framework of fast digital transformation, this study investigates how closely employer expectations match the competencies of accounting graduates in Bangladesh. Data were gathered from 84 companies throughout accounting, audit, and taxation companies as well as 159 accounting graduates. The study ranks five technical skills—financial accounting, management accounting, taxation, auditing, and information systems—and seven soft skills—communication, critical thinking, entrepreneurship, ethics, leadership, lifelong learning, and teamwork. Findings reveal a significant perception gap in entrepreneurship and teamwork skills, with employers prioritizing resilience and collaborative problem-solving, while graduates emphasize self-awareness and interpersonal respect. Technical skills show greater alignment, though employers expect higher proficiency and adaptability in practical applications. The study highlights the need for curriculum reforms in Bangladeshi universities to address these gaps, emphasizing industry-relevant training and the integration of emerging technologies. This research provides actionable insights for policymakers, educators, and industry stakeholders to improve workforce readiness and bridge the skills gap in developing economies.*

**Keywords:** Fourth Industrial Revolution (4IR), Accounting education, Skills gap, Employer expectations, soft skills, technical skills

### **1. Introduction**

The Fourth Industrial Revolution (4IR) represents a dramatic shift in information and communication technology, including advances like cloud computing, simulation, big data analytics, and the Internet of Things (IoT) (Oke& Fernandes, 2020). The Fourth Industrial Revolution is the paradigm change that makes data collecting, analysis possible, and application across linked devices possible (Başgöl&Coştu, 2025). This change helps companies to improve cost-effectiveness, adaptability, and efficiency,

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therefore enabling the manufacturing of better items at lower prices. Employee acquisition of new competencies and technological proficiencies becomes essential as the integration of high-tech devices into daily operations grows. Manufacturing techniques have changed significantly and a wide spectrum of internal and external corporate activities results from the digitization of sectors (Sankar *et al.*, 2024). Driven essentially by corporate digitization, the 4IR brings major changes to the business environment and shapes customer expectations and preferences. Employees must so constantly update their knowledge to be relevant in the changing employment market and acquire competence in running sophisticated technology instruments (Li, 2024).

Though they have different goals, education and business co-exist in a symbiotic manner. Graduates who finally find their way into different spheres of the employment are produced in great part by academic institutions. With this framework, it is imperative to investigate how the Fourth Industrial Revolution affects accounting education, especially with respect to Bangladeshi employers' expectations. Technical talents, sometimes known as "hard skills," have always dominated the corporate scene; but, these abilities by themselves are insufficient to meet the changing needs of the labor market (Wiggberg *et al.*, 2022; Hossain, 2023). The International Education Standards (IES) give future accountants a well-balanced set of competencies expected to result in professional excellence. The required skill set consists in intellectual capacity, technical and functional proficiencies, personal attributes, interpersonal and communicative abilities, organizational and business management acumen (International Federation of Accountants, IFAC, 2020). Professional accreditation bodies including CPA Australia and Chartered Accountants Australia and New Zealand (CAANZ) set these skills as requirements for professional qualification. Similar three-pillar division of critical skills by the American Institute of Certified Public Accountants (AICPA) is accounting competencies (e.g., risk assessment, analysis, and management); business competencies (e.g., process and research management); and professional competencies (e.g., decision-making, communication, and teamwork).

Reliable sustainable economic development depends on a well-qualified workforce. In this sense, colleges are very important in generating qualified human capital that satisfies business needs. As of 2025, Bangladesh hosts 165 universities, comprising 53 public and 112 private institutions (University Grants Commission, 2025). Among the academic courses available in business schools, accounting continues to be the most sought-after course drawing the largest student count (Twyford & Dean, 2024). Because accounting education directly connects to professional positions in accountancy and offers a possibility of secure employment, it is becoming rather popular. Those wishing to work as Bangladeshi accountants have to satisfy the Institute of Chartered Accountants of Bangladesh (ICAB) membership requirements (ICAB, 2022). But many recently graduated accounting students show little knowledge of industry requirements when they start working. Because of differences between company expectations and the competencies gained during academic training, these graduates may find it difficult to fit to job responsibilities and corporate culture. While graduates may stress their soft skills and result in misalignment in employment preparedness, employers typically give technical skills and job-specific talents top priority (Borg *et al.*, 2021; Al-Asfour & Zhao, 2024).

Moreover, disproportionate focus on some abilities—either too high or low—helps to create mismatched expectations and aggravates conflicts between graduates and companies. Still up for contention is how closely business school courses reflect consumer needs. Improving workforce readiness and guarantees that academic institutions properly equip students with the competences needed in the modern labor market depend on addressing the apparent disparities in skill expectations between employers and graduates. The following objectives are considered:

- i. To examine the impact of the Fourth Industrial Revolution on accounting education in Bangladesh.
- ii. To identify the key competencies required by Bangladeshi employers for accounting graduates in the digital era.
- iii. To assess the alignment between university curricula and industry expectations in the field of accounting.
- iv. To explore the challenges faced by newly graduated accounting students in adapting to workplace demands.
- v. To provide recommendations for bridging the skill gap between academia and industry to enhance employability and workforce preparedness.

The importance of this study is to help comprehend the changing scene of accounting education in relation to the Fourth Industrial Revolution. The necessity for a workforce ready with both technical and soft skills has grown even more important as technology changes sectors. This study intends to expose the gaps in accounting education in Bangladesh by offering insightful analysis of the alignment between university courses and industry requirements.

First of all, this study is important for academic institutions since it emphasizes the need of changing courses to guarantee that graduates have the skills needed in the digital age. This study will guide legislators and teachers on possible areas of development by looking at employer expectations and matching them with university skill sets. Such changes can assist close the gap between theoretical knowledge and practical workforce needs, hence improving graduate employability.

Second, the results of this study will be quite helpful for companies since they will help them to better know the skills acquired by fresh graduates. By use of skill gaps, companies will be able to create more successful training and development initiatives that equip fresh hires with the required knowledge and skills to succeed in a technologically advanced environment. This study can also help companies create closer relationships with colleges to create initiatives more suited for sector demands.

Furthermore, as this study offers empirical data on the present situation of accounting education in Bangladesh, it is important for professional accounting organizations and legislators. Research findings can help to shape national education policies, accreditation criteria, and professional development programs to guarantee that accounting graduates satisfy changing needs of the job market.

Moreover, job seekers in the accounting industry as well as students depend much on this study. Understanding industry trends and employer expectations helps prospective accountants proactively acquire the required skills and abilities improving their employability. It will also inspire students to keep competitive in a

world going more and more digital by means of ongoing education and professional development.

Finally, several stakeholders—including academic institutions, companies, legislators, and students—need this study greatly. This study aims to help Bangladesh produce a better skilled and future-ready workforce by addressing the disparities between accounting education and industry expectations. The results of this study will form the basis for policy creation, industry-academia cooperation, and curriculum enhancement, thereby promoting professional success in the accounting field as well as sustainable economic development.

The rest of the paper is organized as bellow:

The first section presents an overview of the entire investigation. It opens with a review of the study's backdrop, specifically how graduates and employers perceive their skills. The study describes the problem statement, research objectives, and the study's significance.

The second section includes a comprehensive literature assessment on the fourth wave of the industrial revolution as well as the skills required to be employed in the twenty-first century. In addition, the section discusses the underlying disparity between the educational offers of colleges and the needs of businesses.

The third section includes a full discussion of the research design and methods, including sampling design and questionnaire design, followed by variable measurement. The outcomes of the study's data analysis methodologies are presented in the fourth section. Both soft skills and technical skills are discussed in this chapter.

The fifth and final section presents the key findings of the research as well as a discussion of those findings. Finally, the conclusion mentions several limits and future study possibilities.

## **2. Literature Review**

It is also research friendly to give a brief literature review from an overall perspective regarding the gap that exists between industry and academia before beginning our discussion of the literature review that is focused on our research. It will provide us with a better understanding of the overall framework of the research gap pertaining to our research subject.

### **2.1 The fourth wave of the industrial revolution**

The fourth industrial revolution brought about tremendous change and improvement in the area of commerce and trade as a result of numerous breakthroughs in this digital era (Spöttl&Windelband, 2021; Islam & Fakir, 2025). Data facilitated the development of machines that are more easily available, faster, and cost-effective, allowing industrial groups to manufacture higher-quality products at reduced costs. The term "fourth industrial revolution" refers to a series of changes in modern technology, including huge data analytics, the internet, cloud computing, artificial intelligence, nanotechnology, and 3D printing (Hossain, 2023).

When compared to the arithmetic growth of its three predecessors, the Fourth Industrial Revolution's rate of expansion resembles a geometric progression. The one

thing that can be confidently predicted amongst all of the unpredictability is that skill and aptitude will eventually supplant capital as the most significant factor in production (Tajuddin *et al.*, 2022; Yadav *et al.*, 2023). This revolution is expected to disrupt not only enterprises but also employment markets and prospects, requiring significant changes in employee skill sets to compete in a digitally altered environment (Poláková *et al.*, 2023). This revolution is expected to affect not only business, but also job markets and possibilities. Businesses' move to digital platforms has resulted in numerous changes, not just in manufacturing procedures across industries, but also in a wide range of other internal and external practices (Ghosh *et al.*, 2022). These changes have been brought about as a result of the transition. With the digitization of businesses and other organizations as the primary focus, the nature of the requirements and preferences of customers is also undergoing rapid transformation at this time (Acciarini *et al.*, 2022; Ghosh *et al.*, 2022).

## **2.2 Skills Necessary for Being Employable in the Twenty-First Century**

The evolving job market of the twenty-first century demands a diverse skill set that extends beyond traditional technical competencies. Research indicates that employability now hinges on a combination of technical, cognitive, and socio-emotional skills (Hossain, 2023b). Among these, digital literacy, problem-solving abilities, and adaptability have emerged as key attributes for professional success (García-Pérez, 2021). The demand for "soft skills," such as communication, teamwork, and leadership, has also grown exponentially as businesses recognize their importance in fostering a collaborative and innovative work environment (Bobitan *et al.*, 2024).

## **2.3 Gap between the educational offerings of universities and the requirements of businesses**

According to McGuinness and Oritz (2016), a skills gap is an insufficient or unsatisfactory level of expertise among applicants or employees to meet the criteria of their present position. In Bangladesh, this gap is exacerbated by a significant rate of graduate unemployment. Recent data from the Bangladesh Bureau of Statistics (2023) indicates that the unemployment rate among university graduates remains high, underscoring a critical mismatch between the skills acquired in higher education and the demands of the job market. The most recent data from the Bangladesh Bureau of Statistics (BBS) Labour Force Survey (LFS) indicates a persistently high unemployment rate among tertiary-educated individuals (university graduates). According to the BBS Labour Force Survey, the unemployment rate for people with tertiary-level education (university graduates and postgraduates) was 13.11% in 2023 (as reported in analyses of the LFS 2023 data). This graduate unemployment rate is significantly higher than the overall national unemployment rate, which was around 4.48% in the same period. This stark disparity highlights that joblessness is most pronounced among the most educated segment of the population. The rate of graduate unemployment has shown an increasing trend over the years, underscoring a growing challenge in the labor market. Because the curriculum taught in universities and the needs of industry have not kept up over time, a gap has steadily emerged between the two, resulting in graduates who are less suited for industry. Furthermore, there is a lack of consensus in the literature and theory about the essential components for determining if a country is equipped for the fourth industrial revolution (Luz Tortorella *et al.*, 2022). When students graduate from

university and enter the labor sector, they may lack the requisite skill sets, particularly for industry. According to the findings of academics such as Igwe et al. (2021), there is a lack of collaboration and partnership between the academic and corporate worlds to guarantee that students are appropriately prepared for the demands of the workplace. Some sectors are being required to provide on-the-job training because there are learning gaps in the current academic curriculum; also, some industries are being pushed to provide on-the-job training before graduates are prepared for employment (Okolie *et al.*, 2021; Kebede *et al.*, 2024). Given the excessive amount of time and money necessary for extra training, this is an unsustainable practice. It is thought that there is a distinction between theory-based learning and so-called "methodological competencies."

The job of an accountant is not as straightforward as it was in the past because of the growing significance of information technology in the modern-day business environment. Not only are they responsible for preparing the financial statement, auditing, and reporting financial data, but accountants also play the role of information facilitators in organizations (Onodi *et al.*, 2021; Yigitbasioglu *et al.*, 2023; Fakir *et al.*, 2022). Therefore, accountants need to become proficient in new software programs, be capable of making strategic judgments, and assume the role of manager. These require skills in management as well as information, including organizational behaviour, strategic management, and information system skills among others (Li, 2024; Bankins *et al.*, 2024).

Even though today's graduates are more aware of the importance of soft skills such as communication, analytical, professional, and teamwork, employers' expectations have shifted from basic accounting skills to "business awareness" and sensitivity to current real-world issues. Even though today's graduates are more conscious of the necessity for soft skills like as communication, analytical, professional, and teamwork abilities, employers' expectations have also climbed from fundamental accounting skills to requiring graduates. The vast majority of businesses are interested in employing applicants who have relevant job and life experience (Nguyen Ngoc *et al.*, 2022; Li, 2024).

However, students and employers have noted that many university-based accounting programs fail to provide both professional and non-technical skills. This is a concern for the accounting profession (Jackson *et al.*, 2023). This is especially true given colleges' crucial role in bridging the gap between graduates and businesses (Bootsma *et al.*, 2021; Jackson *et al.*, 2023).

This study sought to provide better information in order to bridge the perceived skills gap between employers and graduates, to give unemployed graduates a better understanding of the current market's needs, and to encourage higher education institutions to revise their curricula in order to produce quality graduates.

### **3. Research Design**

#### **3.1 Sampling Design**

The data for this sampling came from a survey that included 159 recently graduated accountants and 84 employers. The recently graduated accountants had an average age of 24 years, with 58% male and 42% female respondents. The employers were primarily from mid-to-senior level management in accounting, audit, and taxation

firms, with an average work experience of 8.5 years. Employers are selected from accounting firms, audit firms, taxation firms, and other organizations that have accounting related degree workforces. Graduates are chosen from universities that have been recognized by the University Grants Commission of Bangladesh (UGC), such as the University of Dhaka, the University of Rajshahi, Jagannath University, and North South University. A simple random sampling technique was employed for this study to ensure each member of the target population had an equal chance of being selected, thereby enhancing the representativeness of the sample and reducing selection bias.

### 3.2 Questionnaire Design

The questionnaire survey method was used to collect the primary data in this study. The survey questionnaires are divided into two parts: questions about soft skills and questions about technical skills. The second component of technical skills is advocated by the relevant academics in Bangladesh. These seven soft talents are communication skills, critical thinking and problem-solving skills, entrepreneur skills, ethics and professional moral skills, leadership abilities, lifelong learning and information management skills, and teamwork. This list includes five technical skills: financial accounting, managerial accounting, taxation, auditing, and information systems.

### 3.3 Measurement

Employers and graduates are required to evaluate and rank the importance of the soft skills and technical skills on a scale ranging from one percent to one hundred percent. The results are analysed using a method called constant sum allocation, which makes it possible to measure the relative importance of each of the attributes individually. In order to facilitate comparison and analysis of the skills gap between employers and accounting graduates in Bangladesh, a mean table is presented here. *The degree to which respondents agreed or disagreed with each statement of all constructs was measured using a 7-point Likert scale (1= strongly disagree, 2=quite disagree, 3=slightly disagree, 4= neither disagree nor agree, 5 = slightly agree, 6= quite agree, 7= strongly agree).* The 7-point Likert scale was selected over alternatives (e.g., 5-point or 10-point) as it provides a wider range of response options, allowing for greater variability and nuance in participant responses, while remaining cognitively manageable and reducing the tendency for central tendency bias often associated with 5-point scales (Joshi *et al.*, 2015).

## 4. Data Analysis and Result

### 4.1 Soft Skills

**Table 4.1:** Relative Importance of Soft Skills between Employers and Graduates

Soft Skills	Employer		Graduates		Mean Difference
	Mean	Rank	Mean	Rank	
Communication Skills					
Able to express concepts confidently both in written and verbal (Vocal)	5.79	3	5.29	3	0.5
Able to listen actively and give a response through communication	6.02	2	5.74	2	0.28

Able to deliver speech clearly through the presentation	5.81	1	5.33	1	0.48
<b>Critical thinking and problem-solving skills</b>					
Able to identify and analyse problems in a complex situation and make justifiable evaluations	5.5	3	5.36	3	0.14
Able to find ideas and alternative solutions	5.9	2	5.46	2	0.44
Able to communicate with the team and solve a problem as a team	6.02	1	5.82	1	0.2
<b>Entrepreneurship skills</b>					
Able to identify strengths and weaknesses.	5.83	2	5.62	1	0.21
Able to deal with failure.	5.8	1	5.4	2	0.4
Able in branding, marketing, and networking skills	5.52	3	5.11	3	0.41
<b>Ethics and professional moral skills</b>					
Able to practice with high moral standards in professional practice.	5.74	2	5.46	2	0.28
Able to practice good ethics while having a sense of responsibility toward society.	5.9	1	5.75	1	0.15
<b>Leadership skills</b>					
Able to lead a project	5.92	1	5.56	1	0.36
Able to respond to someone who questions your decision-making abilities	5.98	2	5.71	2	0.27
Able to strategically train their employees to take on massive roles in the organization	5.8	3	5.25	3	0.55
<b>Lifetime learning and information management skills</b>					
Able to search and manage relevant information from various sources.	6.08	2	5.58	2	0.5
Able to improved self-confidence in various situations.	6.06	1	5.78	1	0.28
<b>Teamwork</b>					
Do you believe you can resolve conflicts with other teams collaboratively?	6.13	1	5.8	3	0.33
Able to contribute to the planning and to organize the group work	6.11	3	5.89	2	0.22
Able to recognize and respect the attitudes, behaviours, and beliefs of other people	6.11	2	5.89	1	0.22

Based on the above findings, we can see that in the case of Communication Skills, employers are showing better interest & preference as because they have practical knowledge of the corporate field & they tend to understand the need of well-established communication to maintain & good business relation between both parties. Whereas fresh graduates show relatively lower communication skills in contrast to the standard need due to lack of exposure to practical field and less awareness about the need of concrete Communication Skills.

In the case of Problem Solving and Critical Thinking Skills, we can see that employers & graduates do not have much opinion gap in ranking the attributes. They both know the importance of those attributes. However, the employers show better preference of the problem situation ability and are willing to search the quality to judge the situation by multiple ways. Whereas fresh graduates lack practical knowledge and therefore they are unable to analyse situation based on academic knowledge and traditional ways. They also tend to not understand the level of importance of the attributes.

We can conclude from Entrepreneurship Skills and Ethics and Professional Moral Skills; we can understand that employers wish to find better mentality to undertake risk and deal with failure. They demand a better scope to identify the market opportunities and business possibilities. Also, they expect graduates to be capable designing and implement effective and efficient business models and niche market by manipulating risk factors and market factors. In the others case they have shown to expect better moral skills and ownership towards the company since they need people who are accountable and liable for the decision they took of the company’s interest.

Ability to lead to delegate and supervise the team members are ranked almost same among the employers & fresh graduates equally as both parties are well aware of the importance of this soft skill. In this case, fresh graduates do not have a very big gap with the employers, because they have practiced teamwork in the university. However, their experience is not up to the mark with the employers' expectations because they are not exposed to corporate responsibilities and are not liable to answer to higher authorities.

**4.2 Technical Skills**

**Table 4.2:** Relative Importance of Technical Skills between Employers and Graduates

Soft Skills (Technical skills)	Employers		Graduates		Mean Difference
	Mean	Rank	Mean	Rank	
Financial Accounting					
Capable of applying knowledge of accounting roles and functions in business.	5.6	2	5.35	2	0.25
Capable of recording and preparing financial statements for a full accounting period.	5.82	1	5.38	1	0.44

<b>Management Accounting</b>					
Ability to apply various Management Accounting methods and techniques.	5.65	1	5.23	1	0.42
Individual analytical ability to solve the problem of the organization	5.77	2	5.32	2	0.45
<b>Taxation</b>					
Required level of Academic knowledge about taxation?	5.46	1	5.25	1	0.21
Required level of Problem-solving skill in taxation?	5.49	2	5.21	2	0.28
<b>Auditing</b>					
Able to apply the concepts of the internal control system	5.5	1	5.22	1	0.28
Able to apply statistical and non-statistical audit sampling techniques.	5.4	2	5.08	2	0.32
<b>Information systems</b>					
Able to apply the key issues of analysis, design, implementation, and operation of an organization's accounting information system.	5.54	1	5.25	1	0.29

In the field of technical skills, no significant gap has been found in Financial Accounting. In Financial Accounting employers want accounting graduates to be the capable of recording and preparing financial statements for a full accounting period as top while graduates are able to record and prepare financial statements for the organization. And they have deep latest academic knowledge of preparing Financial Statements.

In the case of Management Accounting & Taxation, the employers show & expect more preference of the skills to make management decisions & to be accountable for those decisions. Since any company will expect its workers to be responsible & accountable for the actions & decisions they undertake. On the other hand, fresh graduates seem to understand the need of this attribute & skill well, but are unaware of the level of importance of this attribute.

We have observed that in the field of auditing employers also ranked the ability to apply the concept of internal control system as top while graduates are judged as similar as compared to the employers. They both have ability to apply statistical and non-statistical audit sampling techniques. Since this attribute involves use of need of mathematical use & fresh graduates have fulfilled almost the requirements of the employers well.

In the case of implementing the Information Systems to the accounting perceptions, knowledge of applying the computerized systems and using the technological knowledge do not show much difference among employers and the fresh graduates. This is because; fresh graduates have better technological knowledge since they are more

computer-friendly & possess better understanding and knowledge of modern tools & techniques. It has also been observed that employers are more adapted to the use of modern management software & deduce logical conclusion to a problematic situation.

## 5. Discussion

The findings of this study reveal a nuanced landscape of skill alignment and misalignment between employers and accounting graduates in Bangladesh, offering critical insights against the backdrop of the Fourth Industrial Revolution (4IR). While prior research has often focused on skill gaps in developed economies, this study makes a distinct contribution by empirically investigating these dynamics within a rapidly developing nation like Bangladesh, where the pressures of digital transformation intersect with unique socio-economic challenges.

The results indicate that while technical skills show a relative alignment in terms of priority ranking, a significant perception gap exists in specific soft skills, namely entrepreneurship and teamwork. This finding is particularly salient for a developing economy. Employers' emphasis on resilience in dealing with failure (entrepreneurship) and collaborative conflict resolution (teamwork) suggests that businesses in Bangladesh are operating in a volatile environment that demands adaptability and robust interpersonal problem-solving—qualities essential for navigating the uncertainties associated with technological adoption and market fluctuations in an emerging economy. Conversely, graduates' self-perception, which focuses on self-awareness and interpersonal respect, reflects a more theoretical or individual-centric understanding of these skills, potentially cultivated in academic settings without sufficient exposure to real-world, collaborative pressures. This disconnect underscores a critical area for curriculum reform that is context-specific, moving beyond generic soft skill lists to address the particular resilience and collaborative competencies needed in developing economies undergoing digital transformation.

Furthermore, the fact that employer consistently rated the proficiency levels higher than graduates for nearly all skills, even when the ranking was similar, points to a gap in skill *mastery* rather than just skill *recognition*. This highlights a key contribution of this study: it differentiates between understanding the importance of a skill and possessing the practiced ability to apply it effectively in a professional context. For policymakers and educators in Bangladesh, this implies that interventions must go beyond simply listing required skills in curricula; they must integrate immersive, practical applications that bridge the theory-practice divide, a challenge acutely felt in resource-constrained educational systems.

The alignment on technical skills is encouraging but should not be interpreted as a lack of need for enhancement. Employers' higher expectation of proficiency and adaptability indicates that graduates are expected to not only know accounting principles but also apply them flexibly with modern tools. This study contributes to the literature on 4IR by demonstrating that in developing economies, the "technical skills gap" may be evolving from a lack of basic knowledge to a deficit in advanced application and technological integration. Therefore, the focus for accounting education in Bangladesh must shift towards fostering adaptability and technological fluency alongside core technical knowledge.

## 6. Conclusion and Implications

This study concludes that the Fourth Industrial Revolution amplifies pre-existing challenges in aligning higher education with labor market needs in developing economies, while also introducing new, digitally-centric skill demands. The primary contribution of this research lies in its empirical identification of specific, prioritized soft skill gaps (entrepreneurship and teamwork) within the Bangladeshi context, providing a targeted roadmap for intervention rather than a one-size-fits-all approach.

The implications of these findings are multi-fold:

- i. *For Academia and Curriculum Design:* Universities in Bangladesh and similar contexts must critically redesign their accounting programs. Courses in Entrepreneurship and Organizational Behavior should be strengthened to emphasize practical resilience, risk management, and collaborative problem-solving through case studies, simulations, and industry-linked projects. This moves beyond merely teaching concepts to building experiential competence. Furthermore, integrating advanced information systems and data analytics tools directly into the accounting curriculum is no longer optional but essential to meet employer expectations for technical adaptability.
- ii. *For Policy and Accreditation Bodies:* This study provides empirical evidence for national education policymakers and professional bodies like the Institute of Chartered Accountants of Bangladesh (ICAB). There is a pressing need to update accreditation standards to mandate the integration of both advanced technological skills and specific, practice-based soft skills into university curricula. Fostering structured industry-academia collaboration forums can ensure that educational offerings remain dynamically aligned with evolving market needs.
- iii. *For Industry and Graduates:* Employers should recognize the need for initial training programs to bridge the residual proficiency gap for fresh graduates, viewing it as an investment in a future-ready workforce. Conversely, graduates must proactively seek opportunities for lifelong learning and skill enhancement, particularly in areas of technological application and collaborative project management, to improve their employability.

## 7. Limitations and Future Research

This study is not without limitations. The sample, while significant, is confined to specific regions and types of firms in Bangladesh. Future research could employ a longitudinal design to track how skill requirements evolve as 4IR technologies become more deeply embedded in the Bangladeshi economy. Additionally, comparative studies across different developing nations could uncover common patterns and unique national challenges in preparing the accounting workforce for the digital age, further enriching the global understanding of 4IR's impact on professional education.

In summary, this research underscores the critical importance of context-aware educational strategies in the era of the 4IR. For Bangladesh to harness the benefits of digital transformation and ensure sustainable economic development, a concerted effort from universities, industries, and policymakers is required to bridge the identified skill gaps, thereby creating a resilient, adaptable, and future-ready accounting profession.

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