Sidratul Muntaha,
Master's Student, people's friendship university of Russia

PRACTICES OF ARTIFICIAL INTELLIGENCE TO TRANSFORM BUSINESS OPERATIONS IN EMERGING ECONOMIES: A CASE STUDY OF BANGLADESH

The present research paper explores the existing practice of artificial intelligence (AI) and its disruption potential to business operations in Bangladesh by reviewing the existing literature and analyzing empirical data. The paper looks at particular AI technologies being implemented, quantifies the real gains achieved by the businesses, evaluates the obstacles to implementation, and offers strategic recommendations. This sample size was chosen considering that 150 respondents were used in 12 different business industries in Bangladesh and data were collected through a structured questionnaire, and analyzed using SPSS (V. 26) and Python-based statistical software. The results show that the use of AI leads to a high level of operational efficiency (78.7% of the respondents have increased it), better decision-making (74.0%), lowered costs (82.0%), improved customer service (70.7%), and streamlined supply chains (76.0%). The biggest barriers are, however, a severe shortage of skilled AI professionals (94.7% reported difficulty), a lack of an adequate data infrastructure (89.3%), high implementation costs (82.0%), and a national AI policy framework (96.0%). It is interesting to note that the absence of awareness and knowledge of AI technology among business leaders was cited by 100% of respondents as a major impediment. The proposed multi-stakeholder framework includes industry-academia collaboration, government-supported AI upskilling, government-backed infrastructure investments, and progressive regulation development. The study has practical implications on business executives, policymakers, and scholarly researchers interested in realizing the potential of AI in improving businesses in

emerging economies.

1. Introduction

Artificial intelligence (AI) has become the foundation of business revolution in the world because of the fourth industrial revolution. AI technologies are radically changing the nature of business competition and value creation, whether it is by automating routine operations or by facilitating advanced predictive analytics (Babu, 2021). In the case of emerging economies such as Bangladesh, AI is a chance of unprecedented potential and a challenge of its own realization. Bangladesh is one nation that has shown impressive economic development in the last ten years to become a lower-middle-income country with an average GDP growth rate of over 6% before the world interruptions. The digital infrastructure has grown tremendously and the internet access is estimated to have up to 126 million users and mobile financial services are estimated to have over 100 billion in yearly transactions (BTRC, 2024). Nonetheless, the use of AI in business is still immature, and there is a high degree of diversity.

The possible use of AI in the industries of Bangladesh is enormous. The manufacturing industry, especially the ready-made garment (RMG) sector, which contributes more than 80% to the export revenues of Bangladesh, may resolve long-standing productivity and quality-control issues with the use of AI-based quality control systems, predictive maintenance, and optimisation of the supply chain (World Bank, 2018). Financial AI-powered fraud detection and credit risk assessment systems and models can also improve the stability and incorporation of the fast-growing digital financial environment in Bangladesh (BIBM, 2017). Retail and e-commerce industries that have seen their demand grow exponentially due to the introduction of apps such as Daraz, Chaldal, and Foodpanda can use AI to predict demand, offer personalized recommendations, and optimize inventory (Rathore, 2023). AI-assisted diagnostics, telemedicine platforms, and patient outcome prediction models may help in the healthcare sector because of

the high resource constraints, where the doctor-patient ratio is 5.26 per 10,000 individuals (Hasan et al., 2023).

Regardless of these promising uses, Bangladesh encounters significant impediments to the use of AI. The AI market is estimated to reach 136.55 billion USD in 2022 and is expected to rise by a compound annual growth rate of 37.3% between 2030 and 2023 (Grand View Research, 2022). But the emerging economies may end up being left behind without strategic interventions. Recent report by the World Bank on Jobs, AI, and Trade in South Asia cautions that Bangladesh and its neighbors are at great risks of being unprepared to embrace the full potential of AI because of the lack of skills, infrastructure, and digital capacity.

The Bangladeshi government has already made its first steps in the development of a national strategy of AI in the form of a draft in 2020 and has developed the vision of Digital Bangladesh. Nevertheless, the process has been slow, and an overall policy framework and incentives to adopt AI in particular are not developed yet (Ahmed, 2023). This lack of alignment between policy and reality leaves businesses with uncertainties on whether to invest in AI.

Although there is a considerable amount of international literature regarding the adoption of AI in business, the situation with Bangladesh is limited. The available literature has investigated the use of AI in banking (Babu, 2021; Khan et al., 2021), healthcare (Uzir et al., 2021), and agriculture (Haque et al., 2021). Nevertheless, the literature gap exists regarding empirical studies on cross-sectoral AI practices, measurement of the barriers to implementation, and solutions relevant to the specific sectors. The paper fills these gaps by conducting an in-depth mixed-method research on AI practices in twelve business industries in Bangladesh.

1.1. Research Objectives

The major aim of the current paper is to evaluate the present condition and trends of artificial intelligence implementation among Bangladeshi companies. The objectives are:

I. To determine the types of AI technologies that are being rolled out in various business segment of Bangladesh.
II. To quantify the measurable effects (benefits) of AI implementation on business performance scores.
III. To determine the issues that businesses have in adopting and scaling AI technologies.
IV. To come up with a strategic framework and a set of recommendations on actions to be taken to overcome implementation barriers.
V. To offer evidence-based information to policymakers, business leaders, and academic researchers.

1.2. Research Questions

This research has answered the following research questions:

i. What are AI technologies that are already being used by businesses in Bangladesh, and what areas of operations are being changed?
ii. What tangible gains have companies achieved using AI in efficiency, cost savings, increased revenue, and customer satisfaction?
iii. What are the main obstacles (technological, organizational, and environmental) to the use of AI in the Bangladeshi business environment?
iv. Which strategic interventions of government, industry associations, educational institutions, and individual companies can fast-track the adoption of responsible AI?

2. Literature Review

2.1. Theoretical Foundations of AI Adoption

Various theoretical approaches can be used to understand the implementation of artificial intelligence in business. The Technology-Organization-Environment (TOE) model that was developed by Tornatzky and Fleischer (1990) provides a multidimensional perspective of the factors affecting technology adoption. When it comes to AI implementation in new economies, the TOE framework assists in discovering technology-related obstacles (infrastructure, data quality, complexity of integration), organizational (leadership commitment, workforce skills, financial resources) and environmental (regulatory framework, competitive pressure, supplier readiness) factors.

The recent studies by Islam et al. (2026) build upon the TOE model by incorporating the dynamic capability theory to study the use of Agentic AI among SMEs in Bangladesh. Their research points to eight major barriers affecting them, such as low internet speed, technological illiteracy, infrastructural inadequacies, a weak government, political instability, high costs, and weak legal systems. This combined theoretical approach is specifically applicable in explaining the peculiarities of businesses operating in the developing economies when institutional and ecosystem factors play a crucial role in determining adoption courses.

2.2. AI in the Bangladeshi Business Context: Current State

Studies with a particular emphasis on Bangladesh have reported an increasing yet disparate uptake of AI in sectors. According to LightCastle Partners (2020), 35 percent of financial sector companies, 20 percent of healthcare providers, 18 percent of manufacturers, and 15 percent of retailers had implemented some type of AI technology. Nonetheless, these numbers are probably exaggerated about significant adoption, with much of it being basic automation and not high-order cognitive AI applications.

Babu (2021) found customer service automation, fraud detection, credit risk evaluation, and other applications in the banking sector had high potential AI. The empirical study by Khan et al. (2021) on the adoption of AI in Bangladeshi banking revealed that organizational readiness, quality of IT infrastructures, and perceived benefits play a crucial role in adopting AI. They however, observed that only a small proportion of banks had adopted AI outside pilot projects.

Healthcare is one of the sectors that have recorded promising pilot projects. A study by Uzir et al. (2021) on the use of AI in healthcare applications in the context of the COVID-19 pandemic revealed that the use of AI-based smartwatches in healthcare to monitor health and improve the user experience are positively associated with user satisfaction and health outcomes. Hasan et al. (2023) introduced an AI-centered model of attaining sustainable development objectives in healthcare with a focus on the possibility of AI-aided diagnostics becoming a solution to resource limitations.

Haque et al. (2021) investigated the use of AI in smart farming in agriculture, such as crop yield estimation, pest detection, and optimization of irrigation. Bangladesh Rice Research Institute has created AI-based crop production estimation and soil quality analyzer systems, but they are at research phase instead of being deployed widely.

The garment industry, which is the economic powerhouse of Bangladesh, has a high potential to integrate AI. The World Bank (2018) stressed that the automation and robotics could solve the problem of the increased labor expenses, stagnation in production, and inconsistent quality. As it was demonstrated by Sikka et al. (2022), AI is used in the textile industry of Bangladesh in its operations, such as automated inspection of fabrics and production scheduling.

3. Methodology

3.1. Research Design

For this study, we used a mix of methods. We gathered numbers from surveys and also got in-depth insights from talking to people in semi-structured interviews. The surveys gave us broad, general findings about how businesses are adopting AI, what good it's doing, and what problems they're facing. The interviews helped us understand the details and context of how companies deal with the roadblocks when putting AI into practice.

3.2. Sampling Strategy

Since there wasn't a complete list of all businesses in Bangladesh that use AI, we picked our participants on purpose rather than randomly. We chose people if: (1) their company had started using at least one AI tool in the last three years, (2) they were in charge of deciding about new technology, like an owner, CEO, director, or department head, and (3) they had been part of putting that AI into use.

We looked at businesses in Bangladesh across 12 different areas: banks and financial companies, factories (including clothing makers), retail stores and online shops, hospitals, IT service providers, phone companies, farming, shipping and delivery, energy and power, schools, drug companies, and hotels.

Following what Sekaran and Bougie (2016) suggest for business studies—that having between 50 and 500 participants is usually good—we aimed for 150 people. We found potential participants in a few ways: (1) by searching online for companies that talked about using AI, (2) looking through lists from industry groups like BGMEA, BASIS, and BACCO, (3) checking who attended conferences, and (4) asking our first participants to suggest others.

3.3. Data Collection

We collected information from January to March 2025. We used a set questionnaire, reaching people in two main ways: (1) online through Google Forms sent out by email and on professional sites like LinkedIn, and (2) in person at businesses in Dhaka, Chittagong, and Sylhet. The questionnaire had 35 questions, broken down into five parts: (A) details about the company and the person, (B) the types of AI used and what they're used for, (C) how people see the benefits and what those benefits are, (D) problems faced when putting AI into action, and (E) ideas for how to fix these issues.

We sent out 214 questionnaires in total, and 158 came back, which is a 73.8% response rate. After tidying up the data, we ended up with 150 usable responses for our final review, making the valid response rate 70.1%. Out of these, 95 were completed online, and 55 were done in person. On top of that, we did 15 more detailed interviews with some participants to dig deeper into certain topics.

3.4. Data Analysis

We looked at the numerical data using SPSS Version 26.0 and Python, along with pandas and scikit-learn tools. For every piece of information, we figured out things like how often something came up, its percentage, average, and spread. We also used cross-tabulation and chi-square tests to see how company traits related to how they adopted AI. For the interview information, we used NVivo 14 to find recurring themes by going through the data repeatedly and labeling what we found.

4. Results

4.1. Demographic and Firm Characteristics

Table 1 shows details about the 150 companies we heard from. Our group covered 12 different industries. Manufacturing, which includes clothing factories, was the

biggest chunk at 22.0%. Next came banking and financial services at 16.0%, then IT services at 12.0%, and healthcare at 10.0%. This breakdown really matches where AI is being used most in Bangladesh.

Table 1: Demographic Characteristics of Respondent Firms

Characteristic	Category	Frequency (N=150)	Percent (%)
Sector	Manufacturing (incl. RMG)	33	22.0
	Banking & Financial Services	24	16.0
	Information Technology	18	12.0
	Healthcare	15	10.0
	Retail & E-commerce	12	8.0
	Telecommunications	10	6.7
	Agriculture	9	6.0
	Transportation & Logistics	8	5.3
	Energy & Utilities	7	4.7
	Education	6	4.0

Characteristic	Category	Frequency (N=150)	Percent (%)
	Pharmaceuticals	5	3.3
	Hospitality	3	2.0
Firm Size	Small (<50 employees)	45	30.0
	Medium (50-250 employees)	58	38.7
	Large (>250 employees)	47	31.3
Annual Revenue	Less than BDT 5 crore	42	28.0
	BDT 5-25 crore	48	32.0
	BDT 25-100 crore	35	23.3
	Above BDT 100 crore	25	16.7
Respondent Designation	Owner/Promoter	18	12.0
	CEO/Managing Director	32	21.3
	Director/Head of Department	45	30.0
	IT/Analytics Manager	38	25.3

Characteristic	Category	Frequency (N=150)	Percent (%)
	Other Senior Manager	17	11.3

Looking at company size, medium-sized businesses (50-250 employees) made up 38.7% of our group. Large companies were 31.3%, and small ones were 30.0%. For yearly earnings, 28.0% of companies made less than BDT 5 crore. 32.0% earned between BDT 5-25 crore, 23.3% between BDT 25-100 crore, and 16.7% brought in more than BDT 100 crore. Having such a varied group means we can compare findings across different industries and company sizes.

4.2. AI Technologies Deployed and Applications

Table 2 lists the AI tools companies are using right now and what they mostly use them for. Machine learning and predictive analytics are the most common AI technologies, with 72.0% of companies using them. Next are chatbots and virtual assistants at 60.0%, then robotic process automation at 48.0%, and computer vision/image recognition at 36.0%. Newer, more advanced tools like generative AI (used by 28.0%) and agentic AI systems (used by 12.0%) are not as common yet, but interest in them is quickly going up.

Table 2: AI Technologies Deployed and Applications

AI Technology	Firms Deploying (N=150)	Percent (%)	Primary Business Applications
Machine Learning/Predictive Analytics	108	72.0	Demand forecasting, credit scoring, customer segmentation
Chatbots/Virtual Assistants	90	60.0	Customer service, FAQ handling, lead qualification
Robotic Process Automation (RPA)	72	48.0	Data entry, invoice processing, report generation
Computer Vision/Image Recognition	54	36.0	Quality inspection, document processing, security
Natural Language Processing (NLP)	48	32.0	Sentiment analysis, document summarization, translation
Generative AI (e.g., ChatGPT, Claude)	42	28.0	Content creation, code generation, marketing copy

AI Technology	Firms Deploying (N=150)	Percent (%)	Primary Business Applications
Recommendation Engines	38	25.3	Product recommendations, content personalization
Speech Recognition/Voice Assistants	24	16.0	Voice-based customer service, transcription
Agentic AI/Autonomous Agents	18	12.0	Automated decision-making, workflow orchestration

It's worth noting that every single company we surveyed said they use at least one AI tool in their daily work. However, how advanced and widespread their AI use is really differs. Bigger companies and those in tech-heavy areas, like banking, phone services, and IT, tend to use AI in more complex and connected ways.

When it came to what AI is used for (companies could pick more than one option), customer service came out on top, with 68.0% of firms using AI there. Then came analyzing data and getting business insights (64.0%), marketing and making things personal for customers (56.0%), and making operations run better (52.0%). Catching fraud and managing risks was mentioned by 44.0% of companies, mainly in financial services. Making supply chains work smoother (40.0%) and predicting when machines need fixing (32.0%) were more common in manufacturing. Only 24.0% of companies reported using AI for HR tasks, like screening job applicants.

4.3. Impact of AI on Business Performance

Table 3 shows how companies felt AI affected their main business results. The feedback was very positive, with most firms saying they saw improvements in every area we looked at.

Table 3: Perceived Impact of AI on Business Performance

Performance Metric	Significant Improvement	Moderate Improvement	No Change	Negative Impact	% Reporting Improvement
Operational Efficiency	78 (52.0%)	40 (26.7%)	28 (18.7%)	4 (2.7%)	78.7%
Cost Reduction	66 (44.0%)	57 (38.0%)	21 (14.0%)	6 (4.0%)	82.0%
Decision-Making Speed	82 (54.7%)	42 (28.0%)	20 (13.3%)	6 (4.0%)	82.7%
Decision-Making Accuracy	63 (42.0%)	48 (32.0%)	33 (22.0%)	6 (4.0%)	74.0%

Performance Metric	Significant Improvement	Moderate Improvement	No Change	Negative Impact	% Reporting Improvement
Customer Service Quality	57 (38.0%)	49 (32.7%)	36 (24.0%)	8 (5.3%)	70.7%
Revenue Growth	45 (30.0%)	52 (34.7%)	45 (30.0%)	8 (5.3%)	64.7%
Employee Productivity	60 (40.0%)	51 (34.0%)	33 (22.0%)	6 (4.0%)	74.0%
Supply Chain Optimization	54 (36.0%)	60 (40.0%)	30 (20.0%)	6 (4.0%)	76.0%
Fraud Detection Capability	66 (44.0%)	48 (32.0%)	27 (18.0%)	9 (6.0%)	76.0%

Cutting costs was the area where the most companies (82.0%) reported getting better. Speeding up decisions came in a close second at 82.7% (that's the total for both "significant" and "moderate" improvement). Improving how efficiently things run was reported by 78.7% of businesses, and more than half of those (52.0%) said the improvement was quite big.

Making more accurate decisions got better for 74.0% of companies. However, 22.0% saw no change, which hints that for some, AI has helped with speed more than precision. Customer service got better for 70.7% of firms, which makes sense given how many companies are now using AI chatbots.

Growing revenue saw the smallest amount of improvement, at 64.7%, with 30.0% of companies saying it didn't change at all. This suggests that even though AI helps with daily operations, turning those benefits into more sales might take longer or need other big changes within the company.

The interviews gave us more details. The CEO of a big phone company told us: "AI has completely changed how we handle customer service. Our chatbot now takes care of 60% of the usual questions, so our human staff can spend their time on tougher problems. Our customer satisfaction has gone up by 15%, and our running costs are down by 25%."

Likewise, the analytics boss at a major bank said: "Our AI system for spotting fraud has cut down fake transactions by 45% and also reduced the number of times it incorrectly flags something by 60%. The system keeps learning and getting better with every transaction."

4.4. Challenges in AI Implementation

Table 4 shows the problems companies run into when trying to use AI. The information points to big roadblocks involving technology, how companies are set up, and the world around them.

Table 4: Challenges in AI Implementation

Challenge	Category	Firms Reporting (N=150)	Percent (%)
Lack of skilled AI professionals	Organizational	142	94.7
Inadequate data quality and availability	Technological	134	89.3
High implementation and maintenance costs	Organizational	123	82.0
Lack of supportive infrastructure (power, internet)	Technological	118	78.7
Absence of comprehensive AI policy/regulation	Environmental	144	96.0
Lack of leadership awareness/understanding	Organizational	150	100.0
Resistance to change from employees	Organizational	116	77.3
Fear of job displacement	Organizational	108	72.0
Data privacy and security concerns	Environmental	112	74.7

Challenge	Category	Firms Reporting (N=150)	Percent (%)
Integration challenges with legacy systems	Technological	98	65.3
Unclear ROI and business case	Organizational	88	58.7

What really stood out was that every single person we asked said that business leaders not knowing enough about AI was a major problem. This tells us that even though more people are interested in AI, many of those in charge don't know enough to create good AI plans, check what different companies are offering, or handle the risks that come with putting AI into use.

Almost all companies, 96.0%, said that not having a full plan or rules for AI was a big issue. A manufacturing executive explained it this way: "We'd like to put money into AI, but we're unsure what new rules might come out. Will the way we collect data still be okay? Who is responsible if our AI system makes a mistake? This uncertainty about policies makes big investments feel risky."

Not having enough skilled workers is a problem for 94.7% of companies. It's especially hard to find data scientists, machine learning engineers, and AI architects. A tech startup founder mentioned: "We're trying to hire AI experts, but we're up against companies from all over the world, or even big international firms in Bangladesh, and we just can't pay what they do. The few skilled people out there expect really high salaries, which is too much for local businesses."

Problems with the quality and availability of data were brought up by 89.3% of firms. A lot of companies don't have their data in a digital, organized way that AI can easily use for learning. As a retail executive put it: "We've got years of

customer purchase info, but it's all over the place in different systems, different formats, and the quality isn't consistent. Getting the data ready for AI has actually taken more time than setting up the AI itself."

High costs to set up AI (82.0%) and problems with basic infrastructure (78.7%) are big hurdles, especially for smaller and medium-sized businesses. While AI services that run on the cloud have helped lower some of these costs, having fast and dependable internet is still a problem in many parts of Bangladesh.

People not wanting things to change (77.3%) and worrying about losing their jobs (72.0%) show the human side of bringing in AI. Workers might feel that AI puts their jobs at risk, causing them to resist the changes, either openly or quietly. An HR director at a big factory shared: "When we brought in AI to check product quality, the factory workers were not happy at first—they thought we were trying to replace them. We had to put a lot of effort into talking with them and training them again to get them to accept it."

4.5. Strategic Solutions: Respondent Recommendations

Table 5 lists the smart ways people suggested to get past the problems of using AI. The information shows a strong agreement on certain actions.

Table 5: Recommended Strategic Solutions

Solution Category	Specific Recommendation	Firms Supporting (N=150)	Percent (%)
Education & Training	Government-backed AI upskilling programs	147	98.0

Solution Category	Specific Recommendation	Firms Supporting (N=150)	Percent (%)
	University curriculum reform to include AI	144	96.0
	Industry-academia partnerships for AI research	138	92.0
	Executive education on AI for business leaders	150	100.0
Policy & Regulation	Finalize and implement national AI policy	150	100.0
	Establish data protection and privacy laws	142	94.7
	Create AI ethics guidelines and governance framework	138	92.0
	Develop sector-specific AI roadmaps	126	84.0
Infrastructure	Invest in high-speed internet connectivity	144	96.0

Solution Category	Specific Recommendation	Firms Supporting (N=150)	Percent (%)
	Establish AI computing/research centers	132	88.0
	Ensure reliable electricity supply	130	86.7
	Develop cloud infrastructure and data centers	124	82.7
Financial Support	Tax incentives for AI investment	146	97.3
	Low-interest loans for AI adoption (especially SMEs)	140	93.3
	Government matching grants for AI pilots	128	85.3
	R&D subsidies for AI innovation	124	82.7
Collaboration	Public-private partnerships for AI initiatives	142	94.7

Solution Category	Specific Recommendation	Firms Supporting (N=150)	Percent (%)
	Industry consortiums for shared AI resources	126	84.0
	International partnerships for knowledge transfer	118	78.7

Everyone agreed most strongly on two things: educating leaders (100% support) and creating a national AI policy (100% support). One person really stressed this, saying: "The government needs to finish the AI policy right away. Every month it's delayed, businesses in Bangladesh fall further behind other companies in the region."

Giving tax breaks for investing in AI got 97.3% support. People suggested specific ways to do this, like letting companies write off AI hardware and software faster, offering tax-free periods for businesses focused on AI, and giving tax credits for research and development.

Investing in basic infrastructure, especially fast internet (96.0% support), is seen as absolutely crucial. While cities like Dhaka and Chittagong have pretty good internet, businesses in other parts of Bangladesh struggle with slow speeds. This makes it hard for them to use AI services that rely on the cloud.

5. Discussion

5.1. Interpretation of Key Findings

What we found in this study shows a complicated picture of how AI is being used in Bangladesh. There's a lot of excitement and clear benefits, but also big problems that need everyone to work together to fix.

The fact that so many companies said AI had a good effect (from 64.7% for making more money to 82.7% for quicker decisions) proves that AI really brings value to businesses in Bangladesh. This fits with other studies worldwide that show AI helps with how businesses run things. But, the lower improvement in making more money compared to other areas suggests that getting AI to boost sales might take more time and depend on other things, like how competitive the market is, the general economic situation, and how well the company can use other tools alongside AI.

Most companies are using AI for things like customer service, analyzing data, and marketing, instead of for their main production or big strategic choices. This tells us that most Bangladeshi firms are still just starting out with AI. More complex uses, like AI systems that make decisions on their own or AI for creating new products, are still pretty uncommon. This is typical for how new technology gets adopted; companies usually try it out on less critical tasks first before fully bringing it into their main work.

6. Recommendations

Based on the findings and discussion, this study offers the following specific recommendations for accelerating responsible AI adoption in Bangladesh:

6.1. For Government and Policymakers Finalize and implement the national AI policy immediately. The draft AI strategy announced in 2020 must be finalized through inclusive stakeholder consultation and accompanied by an implementation roadmap with clear timelines, responsible agencies, and accountability mechanisms. Establish a dedicated AI regulatory authority. An independent body with technical expertise should be created to coordinate AI policy across ministries, provide guidance to businesses, monitor compliance, and represent Bangladesh in international AI governance discussions. Create comprehensive fiscal incentives for AI adoption. Tax incentives should include:

a 200% accelerated depreciation for AI hardware and software, b 5-year tax holidays for AI-focused startups, cR&D tax credits covering up to 50% of qualifying AI research expenditures, and d reduced customs duties on imported AI equipment. Launch a National AI Upskilling Initiative. A coordinated program involving government, industry, and educational institutions should aim to train 50,000 AI professionals over five years, including both new graduates and reskilled existing workers. Funding should prioritize scholarships for underrepresented groups. Invest in digital infrastructure. Prioritize expansion of high-speed internet to all district headquarters and major industrial zones, ensure reliable electricity supply through grid improvements and backup systems, and establish public AI computing centers with high-performance computing resources accessible to researchers and SMEs. Enact comprehensive data protection legislation. Clear rules governing data collection, storage, processing, and cross-border transfer will provide legal certainty for businesses and protect citizen privacy. The legislation should align with international standards to facilitate cross-border data flows.

References

1. World Bank. (2025). *Jobs, AI, and Trade: South Asia Development Update, October 2025*. Washington, DC: World Bank.
2. Rahman, M. M. (2025). AI-Driven Business Model Innovation and TRIAD-AI in South Asian SMEs: Comparative Insights and Implications. *Journal of Risk and Financial Management*, 18(12), 709.
3. Hasan, M. (2026, January 25). Draft AI policy targets innovation, better public services. *The Daily Star*.
4. Government of Bangladesh, ICT Division. (2026). *National Artificial Intelligence Policy Bangladesh 2026-2030 (Draft)*. Dhaka.

5. World Bank. (2025). South Asia Development Update October 2025: Jobs, AI, and Trade (Press Release). Washington, DC: World Bank.
6. The Financial Express. (2026, January 29). Draft AI policy tightens state oversight. *The Financial Express*, Dhaka.
7. UNESCO, ICT Division, a2i, & UNDP Bangladesh. (2026). *Artificial Intelligence Readiness Assessment Report: Bangladesh*. Dhaka.
8. Ohnsorge, F. (2025, October 6). Unlocking jobs through trade and AI in South Asia. *World Bank Blogs*.