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CONTENTS

Workplace Training and Professional Development: Enhancing Learning and Efficiency in the Modern Workplace in Bangladesh

Dr. Serajul I. Bhuiyan*

Abstract

The modern workplace is evolving rapidly due to technological advancements, shifting market demands, and a multifaith workforce. Successful corporate training and professional development frameworks are essential to stay competitive. This research discusses modern workplace training methodologies, including the integration of Artificial Intelligence (AI), microlearning, gamification, cross-training, and virtual Reality. It also discusses the need for training soft skills, inclusive learning programs, and flexible upskilling frameworks. In addition, the paper further addresses the shift to remote and hybrid training patterns and how personalized learning paths impact employee performance. Such new approaches support knowledge retention, engagement, and business agility with a highly skilled workforce to respond to future challenges.

Key Words: Artificial Intelligence (AI), Microlearning, Upskilling, Reskilling, Gamification, Virtual Reality (VR), Augmented Reality (AR), Learning Management System (LMS), Soft Skills, Emotional Intelligence (EQ), Cross-Training, Hybrid Learning Models, Remote Training, Personalized Learning Paths, Inclusive Training Programs, Digital Literacy, Cognitive Science-Based Learning, Adaptive Learning Technologies, Experiential Learning, Learning Analytics, Corporate Training Investment, Workforce Agility, Training Scalability, Diversity, Equity, and Inclusion (DEI), Just-in-Time Learning.

Introduction

As Bangladesh goes through immense economic and technological transformation, workplace development and training have emerged as chief drivers in ensuring business growth and competitiveness. The rapid industrial development, fueled by the Ready-Made Garments (RMG) sector, the expansion of the Information and Communication Technology (ICT) industry, and the increasing presence of Multinational Corporations (MNCs), has increased the level of engagement for a highly educated and adaptable workforce (Rahman & Karim, 2023). Consequently, firms are investing in corporate training courses to enhance productivity, efficiency, and employee participation so that employees are equipped with the skills needed to address industry always demands.

The emergence of Artificial Intelligence (AI), Virtual Reality (VR), and big data analytics is revolutionizing training methodologies. AI-driven Learning Management Systems (LMS) allow organizations to tailor training modules according to individual learning needs, and corporate training becomes data-driven and customized (Hasan & Sultana, 2022). VR and augmented Reality

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allow experiential learning, particularly in industry sectors such as healthcare, engineering, and manufacturing (Haque, 2021). These technologies not only improve the retention of employee learning but also allow for efficient training operations for large and small enterprises.

However, despite growing recognition of the importance of workplace training, several challenges are hindering its widespread adoption in Bangladesh. Many small and medium-sized enterprises (SMEs) are constrained by limited financial resources to invest in employee development programs (Chowdhury & Alam, 2022). Additionally, digital literacy deficits, especially in rural and semi-urban areas, are a significant barrier to the adoption of modern training technologies (Ahmed, 2021). Also, the majority of organizations are still applying the traditional instructor-led training practices that may be inapplicable in addressing the ever-evolving requirements of the job market (BIDS, 2022).

To bridge these gaps, the government, institutions of learning, and business groups must collaborate to develop sustainable training models that respond to the particular needs of the Bangladeshi labor force. Government programs, such as the Skills for Employment Investment Program (SEIP) and the National Skills Development Policy (NSDP), are positive, but far more must be achieved to ensure training programs are made accessible, effective, and responsive to industry needs (Islam & Khatun, 2023).

The study explores the latest trends in employee training in Bangladesh in order to realize the contribution of AI-powered learning, microlearning, gamification, cross-training, and remote learning platforms. It examines their contribution in terms of improved learning effectiveness, employee motivation, and responsiveness of the firm. With the identification of key challenges and opportunities, the study tries a thorough investigation of how organizations in Bangladesh can assist in the development of a sustained improvement culture through strategic workforce development initiatives.

2. The Application of AI in Business Training: Enhancing Learning and Efficiency

Artificial Intelligence (AI) is revolutionizing corporate training by enhancing learning efficiency, simplifying administrative tasks, and turning learning experiences into personalized and goal-oriented employee requirements (Rahman & Sultana, 2022). AI-driven Learning Management Systems (LMS) are enabling essential employee performance analysis, identification of skill gaps, and customization of training modules accordingly (Rahman & Sultana, 2022). By utilizing AI, Bangladesh businesses can offer employees pertinent, targeted training aligned with their career growth and organizational goals (Kabir, 2021).

Artificial intelligence-powered virtual assistants and chatbots are being widely implemented in corporate training packages to offer workers real-time support and advice. AI chatbots serve as virtual tutors and offer answers, track learning, and suggest further training resources (Hasan & Alam, 2023). This not only eliminates human trainers but also offers employees on-demand access to training resources, improving flexibility and engagement (Chowdhury, 2022).

Besides, analytics empowered by AI provide insightful information about employees' performance to enable firms to make informed decisions concerning workforce development. AI applications are able to identify learning behavior trends of employees, predict future training needs, and recommend specific courses to develop individuals and teams (Islam & Karim, 2022). With insights empowered by AI, Bangladeshi firms are able to leverage training investment to ensure their employees receive the most relevant and impactful learning exposures.

The fintech and banking sector in Bangladesh has started adopting AI-powered training solutions to improve customer handling and compliance training. AI-driven simulations and interactive training modules allow employees to understand complex regulatory guidelines and develop problem-solving capabilities in real-time scenarios (Rahman, 2021). Similarly, the RMG sector is implementing AI-driven predictive learning models to train workers in production efficiency, quality checks, and safety measures (Haque, 2022).

Though there are numerous advantages, the introduction of AI to business training in Bangladesh poses some obstacles. The high costs of implementation, limited AI literacy among employees, and resistance to change are among the main drawbacks to its massive adoption (Ahmed, 2021). Small and Medium-Sized Enterprises (SMEs) may also find it hard to implement AI-based training tools due to a lack of financial resources and proper technical skills (Nahar, 2023). Overcoming these hurdles requires strategic investment in AI infrastructure, government support for AI-facilitated workforce development, and capacity-building initiatives to boost digital literacy across industries.

With the growing sophistication of AI technology, its use in business training will become increasingly significant. Organizations in Bangladesh that embrace AI-powered learning systems will be able to enhance worker productivity, mechanize training operations, and maintain their competitive edge in a changing business landscape. Through the inclusion of AI in training programs within the workplace, organizations can build a more adaptive and future-oriented workforce.

3. Microlearning: Enhancing Knowledge Retention and Student Motivation through Bite-Sized Training

Microlearning, or the delivery of learning content in bite-sized, small pieces, is a revolutionary corporate and educational model. By leveraging the focus on short, discrete bursts of training typically ranging from two to fifteen minutes, microlearning gains leverage from cognitive science research supporting increased memory retention and student engagement (Thalheimer, 2017; Pashler et al., 2007). It is especially tailored to the learning demands of learners in the modern day, particularly working professionals, who need mobility, flexibility, and personalized learning experiences.

Microlearning has been again and again substantiated through research to outclass lecture-style training. Hug (2017) mentions that microlearning modules can help to raise knowledge retention rates by up to 70% compared to conventional teaching methods. This growth is attributed to the "spacing effect" and "retrieval practice," both of which are more naturally embedded in microlearning environments (Cepeda et al., 2006). Trainees are not overwhelmed with data but rather constantly exposed to smaller pieces of material over time, enabling repeated retrieval and long-term recall.

Microlearning also improves learner engagement with multimedia elements such as video episodes, animated graphs, quizzes, podcasts, and interactive simulations. These immersive learning environments induce attention and promote active learning (Zhang et al., 2021; Mayer, 2009). Interactive microcontent triggers immediate feedback and real-time tracking, also improving learner satisfaction and achievement.

In the corporate training setting, microlearning has been identified as a way to improve performance and compliance. For instance, according to a study by the Association for Talent Development (ATD, 2018), organizations that implement microlearning see a 50% increase in employee engagement and a 17% increase in productivity. Furthermore, microlearning tools such as mobile applications and Learning Management Systems (LMS) enable just-in-time learning, whereby employees can learn at their point of need—critical in high-speed sectors such as healthcare, IT, and customer service (Bruck et al., 2012).

In summary, microlearning is not a trend but an educationally supported methodology that relies on cognitive theory and technological advancements to address the changing needs of contemporary learners. By improving retention, encouraging participation, and empowering learner autonomy, microlearning presents a scalable and efficient solution for today's training and education initiatives.

4. Soft Skills Training: The Vital Importance of Emotional Intelligence in Contemporary Workplaces

With today's rapidly changing and networked workplace, technical competence alone cannot ensure personal or organizational success any longer. Increasingly, soft skills such as Emotional Intelligence (EQ), communication, flexibility, and leadership are viewed as key competencies that drive productivity, foster collaboration, and drive sustainable growth (Robles, 2012). Emotional intelligence, more broadly defined as the ability to perceive, understand, regulate, and use emotions in oneself and others is at the core of soft skills acquisition and has emerged as a key area of focus in workplace training and development programs (Goleman, 1995; Mayer, Salovey, & Caruso, 2004).

Companies across different industries are spending on emotional intelligence training to manage complex interpersonal dynamics and create a better organizational culture. EQ training equips workers with the ability to manage emotional triggers, empathetic communication, and conflict resolution with aplomb and clarity (Cherniss, 2010). By imparting self-awareness and emotional regulation, these programs yield a more respectful and psychologically safe work environment-dimensions that have been tied directly to employee retention and engagement (Bradberry & Greaves, 2009).

Studies prove the tangible impact of emotional intelligence on workplace performance. A meta-analysis by O'Boyle et al. (2011) found that emotional intelligence has a strong correlation with workplace performance in a range of sectors and roles. People with high EQ are also likely to exercise sound leadership styles, manage stress more effectively, and maintain positive working

relationships, all of which contribute to making an organization effective (Boyatzis, Smith, & Van Oosten, 2019). These findings support Goleman's (2022) argument that emotional intelligence is a more effective predictor of success than traditional IQ or technical proficiency in most working environments.

Furthermore, as the workplace globalizes and diversifies, EQ is more crucial than ever to drive cross-cultural effectiveness and inclusive leadership. Emotional intelligence enables employees to engage positively with individuals of diverse backgrounds, resulting in better understanding and reducing instances of unconscious bias (Bar-On, 2006). Organizations that embed EQ in learning and development are then better placed to construct inclusive teams and retain a competitive advantage.

In summary, emotional intelligence is not an ancillary ability but a strategic asset in the 21st-century workplace. EQ training makes people's emotional reactions align with company values, enhances communication, and develops strong leadership that is resilient. As the necessity for soft skills becomes more and more pressing in a universe driven by automation and hybrid work patterns, emotional intelligence is a mainstay of human-centered, high-performance organizations.

5. The Gamification Revolution of Training: A Serious but Enjoyable Method of Learning

In the midst of the digital revolution and shifting workforce demands, traditional training practices are not sufficient to manage learner focus and sustain interest in the long term. To meet this challenge, gamification has emerged as an important learning and instructional strategy that leverages the elements of games—such as scoring, competition, rewards, monitoring progress, and interactive challenges—to infuse them into learning and professional development environments (Deterding et al., 2011; Kapp, 2012). Much more than mere entertainment, gamification turns learning into a rich, engaging, and motivating experience that maximizes performance as well as participation.

Studies have consistently shown that gamification increases engagement, knowledge retention, and learner satisfaction. Werbach and Hunter (2015) note that gamified learning environments can boost knowledge retention by up to 60% over conventional training. This is because the motivational affordances of game elements tap into learners' intrinsic and extrinsic motivational drivers (Deci & Ryan, 2000). For instance, performance feedback and leaderboards utilize a student's recognition-seeking and achievement motive, while narrative storytelling and questing use emotional involvement and a sense of meaning (Hamari, Koivisto, & Sarsa, 2014).

Corporate learning best suits gamification since it promotes active participation and continuous learning. According to a Deloitte survey in 2016, 80% of the employees reported that they became more productive as training programs made more use of gamification features. Moreover, gamification allows for real-time performance monitoring so that students and teachers can immediately identify progress and areas of knowledge deficiency, thereby enabling personalized learning pathways and just-in-time support (Seaborn & Fels, 2015). This is critical in high-stakes or

fast-changing domains such as finance, healthcare, and technology, where upskilling must be done continuously.

Besides motivation and retention, gamification triggers cognitive involvement through problem-solving, strategic thinking, and decision-making skills that are increasingly valuable in the knowledge economy (Gee, 2003). It also fosters a social learning culture through cooperative challenges, peer-to-peer competition, and collective achievement, promoting teamwork and communication skills (Domínguez et al., 2013).

While beneficial, successful gamification relies on thoughtful design based on instructional theory and learning objectives. Badly designed gamification can lead to learner exhaustion or superficial engagement. Because of this, organizations must ensure that game elements are connected to desired learning outcomes and that learners possess a sense of understanding of how the activities connect to their work (Landers, 2014).

In summary, gamification is not a fleeting trend—it's a research-grounded, student-focused methodology that unites play and purpose in learning programs. Deployed strategically, it not only increases learner retention and engagement but also organizes organizational adaptability and skill building.

6. The Role of Cross-Trained Employees for Business Flexibility

Cross-training employees on other jobs is a business approach that enhances business agility, enabling businesses to react swiftly to evolving market conditions. It minimizes dependency on specific workers, prevents risks due to worker loss, and creates a robust workforce capable of responding to work interruption (Salas et al., 2018). In Bangladesh, industries such as Ready-Made Garments (RMG), banking, and ICT are also gaining an increasing value for cross-training to raise flexibility and effectiveness in operations (Haque & Rahman, 2022).

Those companies that launch cross-training programs observe dramatic productivity increases, innovation, and cooperation between team members. Cross-trained employees, studies confirm, develop broader knowledge of company operations, thus facilitating easier coordination between departments and eradicating bottlenecks (Chowdhury & Hossain, 2021). In banks, for example, employees who are trained across several positions can transfer effortlessly from serving customers, to financial analysis, to compliance management, without disrupting operations, thus improving customer satisfaction (Islam & Karim, 2022).

In addition to the operational benefits, cross-training also contributes to employee career growth and job satisfaction. Employees exposed to other roles acquire new competencies and exposure, thus being more adaptable to career growth within the company (Rahman, 2021). This leads to decreased turnover as employees perceive greater career growth and development opportunities. Bangladesh manufacturing firm research has indicated that cross-training schemes reduce turnover by up to 30% due to the employees feeling more appreciated and committed to their workplaces (Kabir, 2022).

Adopting cross-training schemes, however, in Bangladesh has drawbacks of its own. Resistance by employees, given that they would feel more workload as more work without the same compensations, may deter implementation (Hasan & Alam, 2023). These fears must be addressed by communicating the benefit of cross-training unequivocally, implementing incentives, and integrating planned training routes for balancing workloads (Nahar, 2023). Small and medium-sized enterprises can also fall short of funds to carry out genuine cross-training programs, raising calls for assistance and collaboration by government agencies to fulfill cheap alternatives in training (Ahmed, 2021).

Considering Bangladesh's volatile economy, cross-training is becoming an important aspect of talent development programs. Companies willing to adopt cross-training programs will be in the best position to cope with economic uncertainties, technological shocks, and shifting market forces. By inculcating a culture of ongoing learning and multi-role skills, companies in Bangladesh can create workforce agility, drive innovation, and maintain long-term competitive advantage.

7. Upskilling and Reskilling: Preparing the Workforce for a Rapidly Evolving Job Market

During an era marked by rapid technological advancements, automation, and digitalization, the global workforce is undergoing unprecedented disruption. Traditional linear careers are being replaced by nonlinear, skills-based careers where adaptability is paramount. In this new world, upskilling—the development of current skills in employees—and reskilling—learning completely new sets of skills—are becoming essential strategic imperatives for businesses and national economies (OECD, 2019; World Economic Forum, 2020).

The imperative to close skills gaps is supported by extensive research and evidence. In the report of the World Economic Forum, Future of Jobs Report (2020), 87% of business executives across the globe named existing or imminent skills gaps in their organizations as a front-of-mind issue. Similarly, McKinsey & Company (2021) found that 69% of those firms interviewed globally were undertaking employee skill-building initiatives in a bid to future-proof their staff. These trends indicate a fundamental shift from static education systems to continuous, lifelong learning systems capable of responding to new technologies, shifting market needs, and changing customer expectations (Illanes et al., 2020).

Companies that invest in reskilling and upskilling achieve improved employee retention, increased productivity, and greater organizational agility (Deloitte, 2020). Beyond the domain of business outcomes, workforce reskilling also supports more extensive social ends, including economic mobility and workforce inclusivity, especially because low-skilled labor increasingly can be automated (Brynjolfsson & McAfee, 2014). The financial rationale for reskilling workers is also compelling: the World Economic Forum (2020) estimates that upskilling investments have the potential to add an additional $6.5 trillion to global GDP by the year 2030 and create millions of more jobs.

The tools and modalities for learning skills have remained ahead of the challenge. Online platforms such as Coursera, edX, and Udacity now offer scalable access to quality, employer-viable content.

These are supplemented by AI-powered learning technologies that personalize learning materials, track learners' progress, and predict skills needed according to labor market demands (IBM, 2021). Mentorship programs, experiential learning, and micro-credentialing have also proven to be efficient means of acquiring soft and technical skills in real-world contexts (World Bank, 2021).

Public governments are also intervening. National and sub-national initiatives such as Singapore's Skills Future and the European Commission's Pact for Skills testify to the increasing intervention of public policy to drive lifelong learning and get education institutions in closer alignment with the needs of labor markets (ILO, 2021). These multi-party alliances recognize that the future of work is not just a technology challenge, but a human challenge—requiring sustained investment in the development of talent.

In short, upskilling and reskilling are no longer options—they are the foundation of future-proof and resilient workforces. As digital technologies continue to redefine the skills required to succeed, organizations that embed learning into their culture and strategy will be best positioned to navigate complexity, drive innovation, and thrive in the future of work.

8. Virtual and Augmented Reality in Employee Training: Immersive Technologies Redefining Workforce Development

With companies grappling with the imperatives of a fast-evolving digital economy, immersive technologies such as Virtual Reality (VR) and Augmented Reality (AR) have emerged as a leading set of tools to revolutionize how employees are trained. These technologies break the constraints of the traditional learning environment by creating experiential, interactive, and highly engaging learning experiences. By simulating real-world experiences and overlaying digital information on the physical world, VR and AR are transforming the process of how employees learn skills, remember information, and perform under stress (Bailenson, 2018; Pantelidis, 2010).

Virtual Reality immerses the learner in fully simulated environments that simulate on-the-job conditions. This works particularly well in high-risk sectors such as healthcare, aviation, manufacturing, defense, and emergency services, where experiential practice is needed but real mistakes are costly or dangerous (Johnsen et al., 2018). For instance, VR is used to train surgeons in complex procedures so that they can repeatedly practice in a safe and controlled environment. In the manufacturing sector, employees are able to practice hazardous procedures, such as operating heavy machinery or navigating chemical spills, without the attendant risks (Berg & Vance, 2017).

Augmented Reality, however, enhances real-world settings by overlaying digital information—such as schematics, prompts, or interactive instructions—onto the user's visual field. This technology is especially beneficial in technical and field-based roles, such as equipment maintenance, logistics, and retail. AR technologies enable employees to be hands-free to access context-appropriate information, boost accuracy, productivity, and moment-based decision-making (Pentenrieder et al., 2007). In retail, AR is used in product and onboarding training to support workers in the visualization of customer interactions and shelf layouts (Dacko, 2017).

The effectiveness of immersive training technologies has strong empirical backing. According to a PricewaterhouseCoopers (PWC, 2020) research, employees trained using VR completed courses four times faster and demonstrated 275% greater confidence in applying acquired skills against those who were trained using classroom or internet instruction. The same research indicated that VR instruction improved knowledge retention by up to 75%, a betterment from the typical 10% to 20% achieved by traditional learning. These results pin down the psychological and neurological advantages of experiential learning through active participation, drill, and affective engagement, which enhance the consolidation and application of memory (Makransky & Lilleholt, 2018).

Besides, VR and AR promote equity and access to training by leveling out learning experiences for geographically dispersed teams. Unlike traditional training, which may rely on variable instructor quality or availability of physical resources, VR/AR promises consistency and scalability—crucial in global enterprises with remote or blended workforces (Minocha et al., 2021). VR/AR further allows real-time analytics, allowing organizations to monitor progress, quantify performance, and tailor training paths.

However, its adoption should be properly considered and coordinated with best educational practices. Poor simulation design or inaccessible hardware can downgrade learning outcomes and disenfranchise specific individuals. Thus, human-centric design, solid instruction design, and alignment with widely accepted Learning Management Systems (LMS) are crucial in leveraging the impact of VR and AR initiatives (Radianti et al., 2020).

Overall, Virtual and Augmented Reality are not futurist techie stunts—they are a practical, fact-based answer to powering employee training's next generation. Immersive, replicable, and emotionally engaging experiences, VR and AR, equip today's workers with the skills needed to thrive in a complicated, fast-changing world.

9. Creating an Inclusive Training Program for a Diverse Workforce: Advancing Equity Through Learning

Diversity, equity, and inclusion (DEI) in the global workplace today are not marginal values but strategic imperatives essential to sustainable organizational success. Training programs must also respond to that diversity as workforces become more multicultural, multigenerational, and multidisciplinary. Training programs for an inclusive organization go beyond seeking to acknowledge diversity but to proactively create fair access to professional growth, cultivate psychological safety, and create real representation at every organizational level (Roberson, 2019; Shore et al., 2011).

Organizations that invest in robust DEI training initiatives always experience improved employee morale, engagement, and retention. Roberson (2019) states that organizations with integrated DEI strategies have higher organizational commitment and performance, particularly for historically underrepresented groups. It's not just a social and moral obligation—it's a business imperative. A landmark McKinsey report (2020) found that companies in the top quartile of ethnic and cultural diversity on executive teams were 36% more likely to outperform on profitability, and gender-diverse companies were 25% more likely to outperform industry benchmarks.

Inclusive training goes beyond awareness. They tackle unconscious bias, delve into institutional barriers, and promote inclusive leadership and allyship. These programs give employees the skills to have difficult conversations, recognize microaggressions, and challenge systemic inequities in the workplace (Dobbin & Kalev, 2016; Plaut et al., 2011). A genuine inclusive learning environment recognizes intersectionality—understanding that individual experiences are shaped by more than one interlocking identity like race, gender, age, disability, and sexual orientation (Crenshaw, 1991).

Modern DEI training also employs adaptive learning technologies to support a diverse workforce. Such technologies learn from the behavior of learners and adjust the content presentation based on prior knowledge, cultural context, and learning preferences (Brown et al., 2021). Individualized learning experience destroys one-size-fits-all systems and offers inclusive engagement for neurodiverse learners, non-native speakers, and individuals with disabilities (Burgstahler, 2015). Inclusive training design also encompasses Universal Design for Learning (UDL) principles, encouraging multiple means of representation, engagement, and expression (CAST, 2018).

Above all, inclusion must be embedded at all stages of the training life-cycle—curriculum development through delivery and assessment. The material must incorporate diverse voices and lived experiences, and trainers must be trained in culturally responsive instruction. Furthermore, channels for feedback must be inclusive and ongoing, allowing employees to give feedback openly and assist in shaping continuous improvement in training practices (Thomas & Ely, 1996).

In summary, developing an inclusive training program is both a business strategy and an ethical imperative in today's multicultural workplace. By investing in inclusive training, companies create a culture in which all employees feel valued, respected, and enabled to contribute. These are not just more equitable environments—they are more innovative, resilient, and competitive.

10. The Shift to Remote and Hybrid Training Models Post-Pandemic: Redefining Learning in the New World of Work

The COVID-19 pandemic catalyzed a global transformation of workplace learning, accelerating the transition from traditional in-classroom training to distance and hybrid-based learning modes. What began as an exigency-driven trend has evolved, over time, into a structural change in organizational learning strategy fueled by technological progress, shifting employee desires, and increasing pressure for scalable, flexible, and accessible professional development (World Economic Forum, 2021; McKinsey & Company, 2021).

Virtual Instructor-Led Training (VILT), online learning platforms, asynchronous modules, and real-time collaborative tools like Zoom, Microsoft Teams, and Slack have become bedrocks of the digital learning architecture (Allen et al., 2021). These technologies have enabled organizations to keep operations and upskill workforces across geographical distances, at times lower costs and higher reach. Learning Management Systems (LMS), aided by AI-driven personalization, have also facilitated learning paths and progress tracking based on analytics (Morris et al., 2021; Bonk & Graham, 2020).

While remote learning offers unmatched flexibility, it presents new challenges. Learner engagement, digital fatigue, and reduced face-to-face interaction have emerged as significant concerns. Studies have indicated that prolonged screen time and social isolation can impact attention span, reduce motivation, and increase levels of burnout in students (Nordin et al., 2021; Wiederhold, 2020). Moreover, disparities in access to digital skills and access to proper internet connectivity can exacerbate existing inequalities, making access to inclusive digital infrastructure imperative (OECD, 2020).

To transcend these limitations, many organizations are embracing hybrid training models—a strategy combining virtual and in-person learning strengths. Hybrid training combines the convenience and personalization of online learning with the social and engagement strengths of in-class teaching, creating an active and adaptive learning environment (Hrastinski, 2019). This approach facilitates differentiated learning, allowing learners to choose modalities most appropriate to their learning style, role, and career goals.

Empirical support for the effectiveness of hybrid models is presented. Through meta-analysis, the U.S. Department of Education (Means et al., 2013) indicated that blended learning settings systematically surpass face-to-face or online learning by itself on dimensions of knowledge acquisition and learner satisfaction. Hybrid designs may also incorporate social presence and peer-to-peer learning to assist in developing soft skills and teamwork skills (Garrison, Anderson, & Archer, 2000).

As businesses continue to redefine learning strategies for the post-pandemic period, they must invest in instructional design, faculty development, and metrics for remote and hybrid modalities-specific evaluation. This involves not only technological infrastructure but also the culture of continuous learning, digital equity, and pedagogical innovation.

In short, the shift towards remote and hybrid training is not a temporary fix but a long-term change in the world of work. By embracing flexible and learner-centric models, organizations can build more robust, adaptable, and future-proof workforces that can thrive in the digital age.

11. Personalized Learning Paths: Artificial Intelligence is Transforming Corporate Training

Artificial Intelligence (AI) in corporate learning and development has ushered in a new era of tailored, data-driven training. Traditional one-size-fits-all training models are prone to ignoring the varied backgrounds, learning preferences, and career aspirations of modern employees. In contrast, AI-powered systems are revolutionizing this area by creating adaptive learning environments that dynamically respond to individual learner needs interests, and performance (Chen et al., 2022; Zawacki-Richter et al., 2019).

Personalized learning paths, enabled by AI technology and machine learning techniques, analyze large volumes of data like an employee's job role, past performance, mastery of skills, and behavioral patterns to offer customized content and suggest particular development opportunities (Kumar & Singh, 2021). The systems can customize microlearning courses, suggest master certifications, or adjust content levels of difficulty in real time, optimizing the learning experience for every individual

(Baker & Inventado, 2014). It ensures that the learner experiences timely and appropriately difficult content, increasing motivation and learning retention. The impacts of AI-based personalization on employee engagement and productivity are established. At 78%, in the Workplace Learning Report of LinkedIn (2023), learning and development experts expressed that customized learning is the way forward for improving learner engagement. Furthermore, PwC (2020) studies highlight that firms applying AI-enabled training methods experience up to 40% improved employee performance and retention. This is a consequence of learning experiences that not only save time but also meet the career goals of the employees as well as the needs of the company.

AI-powered dashboards and analytics tools further enhance the advantage of personalized learning by giving instant feedback on learner progress, knowledge gaps, and skill development. Dashboards enable L&D professionals to track individual and cohort performance, gauge the efficacy of training programs, and make data-driven decisions for future instructional design (Ifenthaler &Yau, 2020). Predictive analytics also assist in identifying at-risk learners or high-potential employees so that timely interventions can be made and talent development planning can be initiated.

The integration of AI in training enhances scalability and accessibility as well. With the emergence of cloud-based platforms and Natural Language Processing (NLP), AI systems can support different learners by location and language, breaking down barriers to continuous learning (Holmes et al., 2019). Chatbots and virtual learning assistants also offer 24/7 learner support, offering a seamless and interactive experience outside formal training sessions (Zhang & Aslan, 2021).

However, successful personalized learning applications require more than investment in technology—they require strategic alignment with organizational culture, goals, and ethical considerations. Data privacy, algorithmic bias, and transparency concerns must be addressed to guarantee that AI-powered systems support equity and trust in learning environments (Luckin et al., 2016)..

In short, AI-driven personalized learning paths represent a paradigm shift in corporate training—from one-size-fits-all to context-specific, interactive, and enablement-focused learning processes. With changing AI, this is set to revolutionize how organizations develop talent, foster innovation, and remain competitive in the digital age.

12. Conclusion

In a day of rapid-fire technology and shifting labor market demands, worker training and development are no longer optional but essential pillars of organizational survival. A regularly trained and constantly refreshed workforce is the catalyst for innovation, resilience, and long-term competitiveness. In the same way that work continues to change, so too must the methods by which workers are prepared to meet its challenges.

The intersection of emerging technologies—such as Artificial Intelligence (AI), Virtual Reality (VR), Augmented Reality (AR), and gamification—has profoundly altered the landscape of corporate learning. These technologies don't just digitize material; they render tailored learning experiences, simulate real-world settings, enhance learner engagement, and provide actionable analytics that enable data-

driven decision-making. The result is a more immersive, compelling, and learner-centric model of training that empowers individual growth and organizational responsiveness.

Organizations must go beyond conventional training models to thrive in this evolving environment and invest in comprehensive learning strategies that facilitate continuous development. Microlearning, cross-training, reskilling, and upskilling are essential to maintaining employees' relevance and proficiency in managing evolving roles, technologies, and workflows. Furthermore, embracing inclusive and flexible training models, such as hybrid and remote learning, ensures professional development to engage a dispersed and diverse workforce.

Finally, a progressive training strategy invests in organizational resilience and human capital. Companies that continuously nurture a lifelong learning culture do more than boost employee satisfaction and retention; they stimulate innovation, performance, and future success in an increasingly knowledge-based economy. As the next evolution of work emerges, those who prioritize and refresh learning will drive—not be behind—the next generation of business change.

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A Situation Analysis on the Livelihood and Biodiversity Conservation Situation in Hakaluki Haor of Bangladesh

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Abstract

Haors, recognized for their diverse flora and fauna, are classified as freshwater wetlands. The haor's socio-economic, ecological, and commercial significance makes it a critical element for human livelihood and biodiversity. The primary aim of this study was to examine the livelihood and biodiversity challenges in Hakaluki Haor. Employing a qualitative methodology, the research utilized five distinct data collection tools. The study was carried out in three villages—Khoriatilla, Moimora, and East Judhistirpur—within the Ghilachora union of Fenchuganj upazila in Sylhet district. Demographic data indicated that the economic livelihoods of residents around Hakaluki Haor are heavily reliant on it. These villagers lack access to essential health and education facilities. The findings on livelihood and biodiversity issues were split into two main categories: socio-economic and ecological/biodiversity. Concerning the socio-economic aspect, poverty emerged as the primary issue, impacting education, debt, power inequality, and more. In terms of biodiversity conservation, the majority of residents, both young and old, lack awareness of its importance. Societal issues like poverty and power inequality contribute to a general disregard for biodiversity conservation. The absence of proactive measures by government, NGOs, and the private sector results in systemic stagnation, endangering long-term ecological balance and biodiversity.

Key Words: Haor, Socio-economic, Livelihood, Biodiversity, Conservation

Introduction

Bangladesh, teeming with diverse flora and fauna, enjoys nature's bounty like a child cradled in its mother's lap. Its rich biodiversity encompasses forests, freshwater wetlands, and coastal and marine ecosystems. For example, Bangladesh features protected areas that have international recognition, like the World Heritage site in the Sundarbans, the haors in northeastern Bangladesh, and tropical forests in the Chittagong hill tracts (Foster-Turley et al., 2016).

The term "biodiversity" is used to refer to the broad range of life forms on the planet, including the genetic diversity, the variety of species, and the variety of marine, land, and aquatic environments, as well as their associated developmental and ecological processes (DK, 2015). It is also known as the "library of life" which encompasses all forms of life,

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from bacteria to plants, fungi to invertebrates, and from land to sea and freshwater (Ibid, 2015). Biodiversity is essential for the health of human beings andfunctioning of the ecosystems that comprise the Earth (Museum, 2016). Without biodiversity, our societies would not be able to function (Ibid, 2016). Since 1999, Bangladesh has declared 13 biodiversity-rich areas as Ecologically Critical Areas (ECAs) under the Environment Conservation Act. Among these 13 biodiversity-rich areas, 8 sites are in the Sylhet division and 5 are in the Khulna division. Among the 13 ECAs in the Sylhet division, Hakaluki Haor is a marshland that becomes inundated seasonally and is very important for mother fish breeding and swamp forests. It is a habitat for migratory birds and many native fish species.

The present study was conducted to know about the situation of livelihood dependence on the Hakaluki hoar as well as the present status of the biodiversity conservation situation in Hakaluki haor. 'Hakaluki Haor' is a wetland of great natural beauty. In winter, the loud chirping of the guest birds from different parts of the world, the melodious melody of the shepherd's flute, the free flight of butterflies on the sunflowers, the green beds, and the water playing with the waves filled with monsoons, the calls of the sailors and the leaping of the fish in the fishermen's nets are a wonderful picture of natural beauty.

2. Significance of the Study

According to the Global Standard for the Identification of KBAs based on the World Database of Key Biodiversity Areas (WDKBA), there are 11 criteria that are clustered into five categories; such as threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and irreplaceability (SCBD and UNDP, 2021). Sites that meet one or more of these 11 criteria are regarded as the KBAs. Considering these criteria, nearly 16,000 KBAs have been identified globally among which 20 KBAs are in Bangladesh (Ibid).

Given the importance of biodiversity conservation, this study serves as a valuable resource for policymakers to initiate training and awareness programs within local communities. These efforts aim to highlight the necessity of conserving biodiversity and encourage community involvement in planning, decision-making, and conservation activities. This study underscores the significance of integrating local populations into biodiversity conservation efforts, especially since their socio-economic lives heavily depend on areas like Hakaluki Haor. It advocates for collaboration among government, private sector, and community stakeholders to implement effective biodiversity conservation measures, ultimately protecting the livelihood sources of the local people.

3. Objectives of the Study

The main objective of this study was to understand the livelihood and biodiversity issues in the Hakaluki Haor. This assessment also concentrates on the engagement of the youth as well as the stakeholders from the government, private sector, and communities in biodiversity conservation activities.

4. Methodology

This analysis was done following a qualitative approach. Five types of qualitative data collection tools were used for qualitative data collection; such as informal discussions, village transit, case study, direct observation, and photography. The fieldwork of this study was conducted during the month of July 2023. The researcher built relationships with the local people to gain their trust and ensure their participation in the data collection process. As an outsider, the researcher first visited the local tea stalls where local people gather and share their thoughts through their normal behavior in an uncontrolled environment. During the observation, the field researcher also tried to build rapport with these local people which helped the researchers enter into the community.

Figure: 01 Methodology of the Study
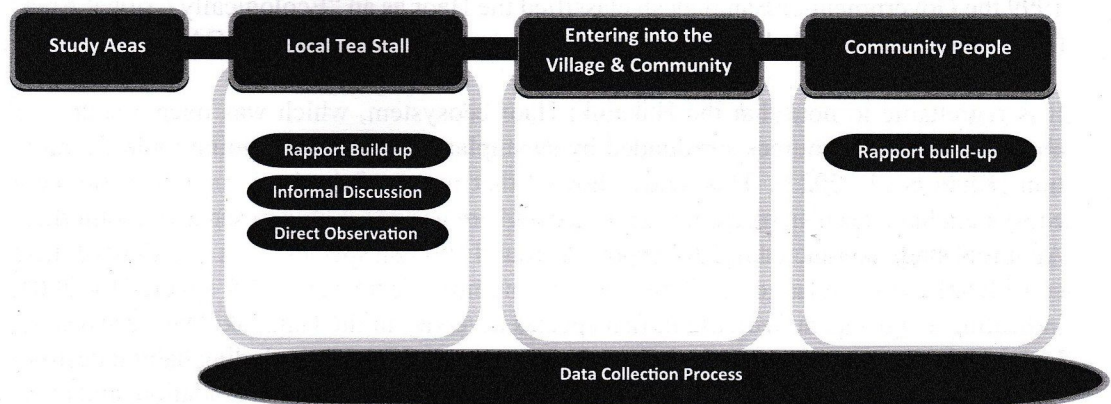
5. Sources of Data

In the present research, the primary data were collected directly from the local people of the three studied villages (Khoriatilla, Moimora, and East Judhistirpur) of Ghilachora union under Fenchuganj upazila of Sylhet District. The secondary sources are different newspapers, periodicals, previous research works, official statistics, mass media information, government reports, web information, and social research journals.

6. Literature Review

Kozeill's (2001) study determined multiple values of biodiversity which include direct use (subsistence and tradable), indirect use (environmental services, information, and evolutionary and non-use value (future options and existence). Bangladesh's unique geophysical location is exceptionally rich in biological diversity (Barua et. al. 2001; Hossain, 2001; Nishat et. al. 2002). Hakaluki Haor is one of only four major "Mother Fisheries" of Bangladesh (FAP, 1995). This freshwater wetland is an important habitat and breeding ground for various species of fish and aquatic species (ibid). Local people have traditionally

used the resources of haor for various livelihood purposes for centuries (Karim, 1993; Ahmed et al., 2008). This is the country's largest freshwater wetland ecosystem (Sunny et al., 2022). Their study showed that in the dry season, the haor covers an area of about 4,400 ha. During the summer rains, the entire Haor floods to about four and a half times this size (18,386 ha) and stays underwater for about five months. All the beels unite as one large lake or haor during this period, making the haor the largest freshwater wetland ecosystem in Bangladesh. This study also investigated that in the past, the haor supported abundant wildlife and aquatic resources, and was covered with swampland. However, in recent times, the haor has rapidly deteriorated and is now facing increasing pressures and threats from various sources, including the over-exploitation of its reeds by local people. About 200,000 people are living around the Haor, and all of them are more or less dependent on the Haor's resources for their livelihood. Due to these threats and the rapid degradation of its resources, and due to the need to protect the Haor's unique ecology and biodiversity, in 1999 the Government of Bangladesh classified the Haor as an "Ecologically Critical Area" (ECA) under the Bangladesh Environment Conservation Act, 1995 (BECA).

It is regrettable to note that the Hakaluki Haor ecosystem, which was once a source of abundant aquatic resources surrounded by swampland, is now undergoing rapid degradation (Khan et al., 2022). This study showed that many of the beel species in the haor ecosystem have been significantly degraded and are no longer able to serve as motherfish. An initial study conducted in 2005 reported around 100 fish species, with one-third of them considered to be endangered. However, this number decreased to 75 species by 2009, indicating a significant decrease in fish species diversity in the Hakaluki Haor ecosystem. Fish species composition may be affected by a variety of factors, including habitat destruction due to agricultural intensification, urbanization, environmental degradation, and over-utilization of resources (Ibid, 2022).

The Hakaluki Haor is a highly productive wetland habitat for a variety of wetland plants and animals (Uddin et al., 2013). This study revealed that due to human and environmental pressures, the habitat has seen a significant decrease in its true structure over the past few decades, resulting in a significant decrease in the number of species. Additionally, the population of the area is leading to a rapid depletion of natural resources, resulting in a range of environmental issues. This study showed that Hakaluki Haor is experiencing a significant amount of siltation in its waterways, with the main sources being the Yuri River and the Sonai River. It is also noteworthy that the Sonai River and its canals are carrying silts from the nearby Kushiyara River, while the Yuri River is carrying large amounts of silt from the surrounding hills. This siltation is occurring in the southeast and northwestern parts of the haor, leading to the consumption of land for settlements and cultivation, which in turn reduces the natural biodiversity of the wetland. Floodwater is a major factor in the siltation process, as it fills up the depth and reduces the carrying capacity of the water bodies, thus impeding the area's multidimensional development. This study showed that during the dry season, the inhabitants of the Haor and surrounding areas are destroying the

stems of the swamp trees to meet the demand for fuel wood, which worsens the erosion of the habitat. The reduction of the swamp forests results in the loss of habitat for the migration and spawning of migratory birds, which results in the degradation of biological production. In recent decades, there has been a rapid expansion of agricultural activities within the wetland area, which has harmed the wetland ecosystems in both qualitative and quantitative terms. Human activities associated with farming in the swamp wetlands during the winter months disturb the migratory birds, and the increasing human settlement of the haor ecosystem has not only occupied the natural habitat but has greatly disturbed the wildlife in the area. Biodiversity and biological production have been declining for the past couple of decades.

Islam et al. (2011) showed the economic activities in Hakaluki haor and their impact on haor ecosystem. According to their study, most of the local people were poor. Among them, more than 90% were dependent mostly on the Hakaluki haor for their livelihood. More than half of their household income came from fish capture, fish culture, and fish trading. This study also showed that about 47% of households collect fuel woodfrom haor. This study revealed that over-exploitation of resources and existing management systems are the main threats to Hakaluki haor.

Choudhury (2005) showed that Hakaluki haor has become a rapidlyeroding landscape and has faced increased pressure and threats from various sources, including over-exploitation of its regeneration by local populations which was once supported by abundant wildlife and aquatic resources. A survey conducted by FAP (1995) showed that there were 125 bird species in the Hakaluki hoar regions. Another study conducted by IPAC in 2009 revealed that there existed only 41 bird species in the Hakaluki hoar regions (IPAC, 2009). That means about 33% of bird species were decreased within 17 years. More than 40% of the freshwater fish species are classified as threatened with natural extinction as a result of wetland depletion (IUÇN Bangladesh, 2000).

Mukul's (2007) study on the Hakaluki hoar showed a rapid reduction of biodiversity in the Hakuluky hoar. This study also revealed some causes for this rapid reduction, such as increasing population density, rural poverty, and lack of employment. He added illegal poaching, environmental pollution and degradation, replacing natural plantations with the monoculture of short rotation and fast-growing species, absence of proper institutional arrangements, frameworks and monitoring, lack of true political commitments and willingness, and lack of people's awareness as underlying factors related to the threats to the biodiversity. He blamed unplanned and rapid urbanization as well as the commercial mentality of the people which includes encroachment, shifting cultivation, introduction of high yielding varieties, transformation of land use patterns and agricultural expansions, change in cropping patterns, commercial shrimp cultivation, expansion of road networks, and unplanned embankments.

Rana et al. (2010) conducted a study in Hakaluki haor situated in Moulovibazar and Sylhet districts on the socio-economic status of the haor-dependent people who lived in the nearby areas of haor. The hoar-based economic activities of the respondents included fishing and related activities (32%) followed by duck rearing (29%), cattle rearing (28%), firewood collection (6%), sand extraction (3%), and reed collection (2%). On average, about 15% of the respondents were completely dependent on the Hakaluki haor, 32% were moderately dependent, while 53% were less dependent. It was also noticeable that the extremely poor were entirely dependent on the resources of hoar. This study also chalked out some reasons for haor protection which included protecting haor as the main source of livelihood (85%) followed by the sources of foods (55%), source of firewood (51%), increasing the number of fishes (34%) and so on.

The study by Ahmed (2007) estimated that one-third of (more than) 100 fish species of the Hakaluki haor are listed as nationally endangered. This study showed that most of the people in the haor areas are directly or indirectly dependent on the hoar and its resources. For that reason, the number of fishermen and farmers was the highest among the haor inhabitant people. This study identified three types of stakeholders in this haor. Firstly, the primary stakeholders which include farmers, fishermen, bird hunters, cattle grazers, tea garden laborers, fuel wood collectors, bamboo and cane product producers, traditional healers (Kabiraj), aquatic weed collectors, and local ultra-poor who collect various resources from the haor. Secondly, the secondary stakeholders are people who are indirectly dependent on the hoar; such as fisheries lease-holders, boatmen, fish cooperative society members, net owners, boat owners, insecticide traders, and mediators (Foria). Thirdly, institutional stakeholders who are engaged in the conservation of haor and its resources. Such as GoB officers, projects, institutions, and NGOs. This study identified some causes for the degradation of wildlife in the Hakaluki haor, e.g., hunting, lack of proper nesting places for birds, lack of food for birds, lack of hiding places, lack of awareness, and preyed by other wildlife. For the degradation of the plant species, this study determined some threats, e.g., over extraction of plants for fuel wood, cattle ranching destroying the natural seedlings of hizol and other plants, shrubs type of plants also collected for fuel wood, ecosystem destruction, conversion into agricultural land, and lack of government initiative. More importantly, this study argued that due to population growth and less availability of resources in the hoar, most of the people had to change their traditional occupation which was mostly dependent on fishing and farming.

A study conducted by Choudhury and Faisal (2005) also disclosed that once covered with abundant wildlife and aquatic resources, the Hakaluki haor is now a rapidly degraded landscape facing increased pressures and threats. Forest resources (wetland and reed land vegetation) of the haor region are also slowly disappearing due to a lack of proper conservation as well as management strategies. Mukul et al. (2018) showed that a major threat to Bangladesh's aquatic biodiversity is (increasingly) soil and water pollution. And thus the biggest victim of this pollution is the aquatic ecosystem.

7. Selection of the Staudy Area

The Hakaluki haor is particularly a good example of such type of water resources that have great ecological, economic, and commercial values. It is one of Bangladesh's largest and one of Asia's largest wetland resources. The haor is spread over Kulaura, Juri, and Baralekha upazilas under the Moulovibazar district and Fenchuganj and Golapganj upazilas under the Sylhet district.

Figure: 02 Hakaluki Haor
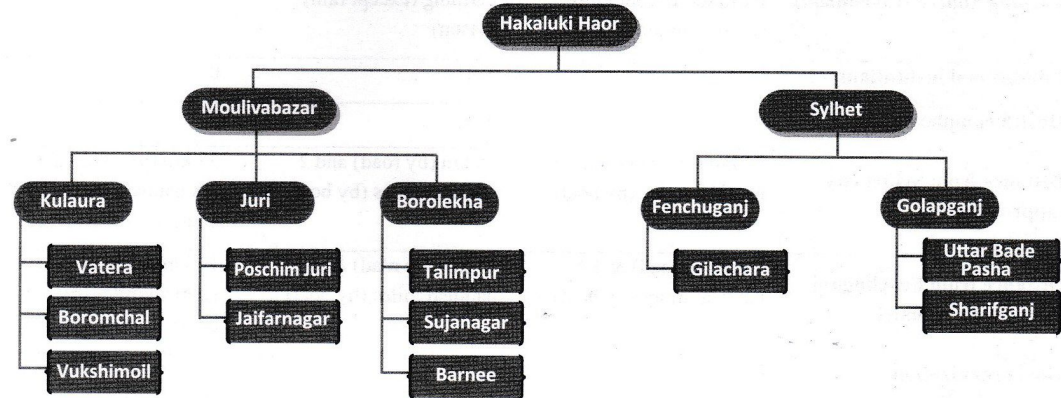
Source: Ahmed (2007)

The total area of this haor is about 39322.422 hectares or 97166.78 acres but in the rainy season, its total area turns into 18,000 hectares. Surrounded by Patharia and Madhav in the east and Bhatera hills in the west, Hakaluki, Asia's largest freshwater haor, is spread over 11 unions of 6 upazilas of Moulvibazar and Sylhet districts. About 70% of Haor is spread in Baralekha, Juri, and Kulaura of Moulavibazar district, 15% in Fenchuganj, 10% in Golapganj, and 5% in Biyanibazar upazila of Sylhet district. This study was conducted in the three villages (Khoriatilla, Moimora, and East Judhistirpur) of Ghilachora union under Fenchuganj upazila of Sylhet District.

8. Demographic Discussion

Based on a brief discussion with the local people of the villages, demographic information of these villages is given below:

Table: 01 Demographic Information of the Study Area

Particulars	Study Areas		
	Village 01	Village 02	Village 03
	Khoriatilla	Moimora	East Judhistipur
Population	300	250	2500 - 3000
Numbers of families	40	25 to 30	150 to 200
Earning Source (Livelihood)	Fishing (rainy season), Farming (except rainy season), migrant work	Fishing (rainy season), Farming (except rainy season)	Fishing, Labor work
Educational institutions	0	0	0
Health complex/other	0	0	0
Distance from Sylhet city (approximate)	32 km (by road) and 1.6 nautical miles (by boat)	35 km (by road) and 2 nautical miles (by boat)	37 km (by road) and 3.8 nautical miles (by boat)
Distance from Fenchuganj town (approximate)	9 km (by road) & 1.6 nautical miles (by boat)	11 km (by road) & 2.7 nautical miles (by boat)	14 km (by road) & 3.8 nautical miles (by boat)
Gov. organization	0	0	0
Private/NGO office	0	0	0
Literacy	Mostly Illiterate	Mostly Illiterate	Mostly Illiterate
Drinking water	Unhealthy	Unhealthy	Unhealthy
Sanitation	Unimproved	Unimproved	Unimproved

Demographic data shows that large families predominate in the studied villages. The economic life of the residents living around Haor is largely dependent on this Haor. Also, many people are involved in tourism, transportation, and daily wage-based work. Residents of these villages are deprived of essential health facilities and education facilities.

The majority of the people have not yet learned the three R's. To get these facilities, they have to travel long distances, which is time-consuming and expensive. Other needs such as literacy, clean drinking water, and sanitation facilities are in poor condition in these areas. Neither government agencies nor private/NGOs were seen to take any effective initiatives for the development of these areas nor did the local residents mention any such issues. This can also be attributed to the low literacy rate, non-availability of clean drinking water, and poor sanitation in these areas.

9. Case Studies
Salam (Fictitious name), **Villiage:** Khoriatilla

Young and smiling *Salam* (20) is a boatman and fisherman in the area. Today, apart from fishing, Hakaluki Haor also offers boat tours to tourists. As a child, he could not complete his primary education as he had to take responsibility for the family. He and his fellow fishermen have not been catching fish as expected for the past few years. It is quite worrying that the problem has worsened this year. As a result, their livelihood is getting worse day by day. *Salam* alleges that this is happening due to the ill will of local powerful people to use *magic* (electric) nets.

Nazrul (Fictitious name), **Villiage:** Khoriatilla

Nazrul (70) has used fishing as a family occupation since childhood. He moved to Dubai as a migrant worker in his middle life and returned to Bangladesh in 2004. He now fishes in Hakaluki Haor. According to him, the Bengali month from Baishakh to Bhadra/Ashwin is a critical moment for fishing. He has a small boat for fishing. But during the rainy season, when the volume of water in Haor increases, fishing with this boat becomes very difficult. However, he is more concerned about the fact that the amount of fish in Haor is decreasing day by day. While fishing, he observed that the number of different species of fish has already reduced surprisingly. If this continues, the ecosystem will be severely damaged. *Nazrul* and his young colleagues are very concerned about using of *magic* (electric) nets by the powerful in the area and have not seen any government, private, or local-level initiatives in his area to address these issues.

Samsuddin (Fictitious name), **Villiage:** Moimora

Moimora is a small island-like area surrounded by Hakaluki Haor. *Samsuddin* (35) and his family live in this village. *Samsuddin* has been fishing for almost 18 years. His 65-year-old father gave up nearly 30 years of fishing career due to illness and physical disabilities. Samsuddin could not complete his primary education. He fishes during the rainy season and earns his livelihood by cultivating the land during the rest of the year. As his father is no longer able to fish, their family income has decreased and they are now living a struggling life. Both he and his father are very concerned about the decline in fish numbers in Hakaluki Haore. This village is a flood-prone area of Hakaluki Haor. During floods, their houses are submerged under water and their livelihood becomes miserable. As there are no shelters in this village or nearby, they cannot take shelter during floods.

When his father used to fish, he (his father) used to catch a lot of fish of different species. But now the amount of fish that *Samsuddin* gets from Haor is very little. *Samsuddin* expressed dissatisfaction with the use of the *magic* (electric) nets by some people in the area. The use of these nets threatens the survival of any fish. He feels that it is possible to bring back the lost days of Haor by curbing the use of *magic* (electric) nets, expanding afforestation in Haor, and dredging Haor.

Amit (Fictitious name), **Villiage:** Judhistirpur

One of their largest fishing communities resides in East Judhistirpur. About 200 families live here. One of those families is that of *Amit* (30). Due to poverty, his family sent him as a child laborer in Uttara, Dhaka. At the age of 17, he returned to his community and started his family profession (fishing).

Besides catching fish, he also sells fish in the small market of East Judhistirpur. He has not been able to catch freshwater prawns for the past few years. Even in the local market, it is not seen much. He claims that these challenges are due to the use of *magic* (electric) nets by some selfish individuals. He has a very small engine boat. But rising fuel prices and lack of enough fish have made his poor and miserable life even more miserable these days.

10. Findings of the Study

Data obtained from case studies, informal discussions with community members including youth and women, and above all direct observation can be divided into two broad aspects; firstly socio-economic aspects and secondly ecological and biodiversity aspects.

Figure: 03 Findings of the Study

Socio-Economic Aspects	Ecological & Biodiversity Aspects
Poverty	Deforestation
School dropout	Using of illegal *magic* (electric) net
Illiteracy	Flood
Child labor	Sedimentation of the Haor bottom
Lack of permanent work	Absence of VCFs/VCGs/CPGs
Indebtedness	No evidence of youth engagement
Migration	No evidence of GOV engagement
Poor infrastructure	No evidence of NGO/private sector engagement
Power inequality	
Lack of awareness	

The figure above shows that in terms of the socio-economic aspect, poverty is the main problem which also affects other aspects like education, debt, power inequality etc.

For example, in the three villages studied, young people who are supposed to attend school and college are directly and indirectly involved in different sources of income. On the other hand, as they are dropping out of education, they are also getting away from the means of acquiring knowledge about the importance of protecting biodiversity. And from this, it can be said that poverty and power inequality in a society are more likely to make the people of the society uncaring of environmental aspects.

Lack of initiative by governments, NGOs and the private sector creates stagnation in the system, which threatens the ecological balance and biodiversity in the long run. During the village transit of the field researchers, no visible initiative of any government or private organization was seen. A banner of the Upazila Fisheries Office regarding fish habitat development was found in poor condition. This is the overall picture of the diversity situation in the Hakaluki area.

11. Recommendations

Considering the analysis, some recommendations are given below:

i. Stopping the use of illegal fishing nets should be strengthened to protect the remaining fish species. In this regard, 1-2 village-based youth groups should be formed, that will monitor these issues.

ii. Afforestation, dredging, and similar activities should be implemented in Hakaluki Haor for ecological balance and biodiversity.

iii. The respective government bodies should ensure an eco-friendly leasing system.

iv. Necessary and effective steps should be taken for the socio-economic and healthy living of the people of the community.

v. Relevant GoB should take necessary steps to recover encroached lands.

vi. The existing law enforcement sectors of GoB should take necessary measures to control over-extraction of haor resources, wildlife killing, and using of harmful fishing gear.

vii. Youth campaigns and related initiatives will be needed to create awareness about biodiversity.

viii. Necessary vocational training should be introduced for the local people especially for the youth to create alternative sources of income and to decrease the unemployment rate.

ix. Although it is unusual, no initiative has been taken in these areas either at the public or private level. Therefore, these organizations should play a more active role in this regard.

x. The GOs and NGOs should arrange awareness-raising seminars and community-level meetings. In this case, the organizers should engage the local people.

12. Conclusion

Environmental sustainability and regeneration are important goals of sustainable development after economic well-being and social and human development (Dalal-Clayton and Bass, 2012). In this sense, development and biodiversity are interlinked (McNeely, 2002). The findings of the study and the literature review reveal that most of the people living near the Hakaluki haor are mostly dependent on this haor and its resources. But the natural resources of the haor have been decreasing day by day for various reasons. Some of the threats are over-extraction of resources, land encroachment, non-eco-friendly leasing systems, unplanned irrigation systems, bird hunting, conversion of agricultural land, cattle grazing, lack of law enforcement, excessive uses of insecticide in the crop field, sedimentation, lack of alternative income sources and lack of awareness of the local people. But it is necessary to conserve the biodiversity of the Hakaluki hoar to maintain the natural ecosystem. It is also essential for the local people to save their main source of income.

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A Survey on Islamic Finance Understanding and Awareness in Bangladesh

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Abstract

One of the primary obstacles to the expansion of Islamic finance (IF) is the lack of adequate awareness and understanding of its principles. This study aimed to assess the knowledge and comprehension of Islamic finance among Bangladeshi individuals who actively use bank accounts for financial transactions. The scope included evaluating their understanding of Islamic financial management rules, familiarity with basic terminology, and awareness of the services, products, and benefits of Islamic finance, including Islamic microfinance. Using convenience sampling, data was collected from 328 respondents and analyzed with SPSS version 16. The findings revealed that respondents exhibited a relatively strong grasp of Islamic financial management rules and core Islamic finance concepts. However, despite residing in a predominantly Islamic country, their understanding of key Islamic finance terminologies was limited. Furthermore, they showed less familiarity with the services, products, and benefits of Islamic finance and Islamic microfinance. These findings carry significant implications for researchers, practitioners, and policymakers working to advance Islamic finance. The study provides both theoretical insights and practical recommendations for enhancing awareness and promoting the adoption of Islamic finance among the general population.

Key Words: Awareness, Islamic economics, Mudarabah, Musharakah, Ijar

1. Introduction

Islamic finance has gained global prominence as an ethical and inclusive alternative to conventional financial systems, rooted in Shari'a principles emphasizing fairness, transparency, risk-sharing, and the prohibition of interest (riba). It provides financial solutions that align with moral and social values, appealing not only to Muslim-majority populations but also to non-Muslims seeking equitable and ethical financial practices. The global Islamic finance industry, valued at approximately $3.9 trillion in 2021, continues to expand, driven by increasing awareness of its social and economic benefits (IFSB, 2021).

In Bangladesh, a predominantly Muslim country, Islamic finance has grown rapidly, with Islamic banking institutions accounting for nearly 27% of total banking assets as of 2022 (Bangladesh Bank, 2022). This growth reflects the potential for Islamic finance to foster financial inclusion, support economic development, and address socio-economic

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challenges. However, despite its expansion, significant gaps in understanding and awareness persist. Studies and surveys consistently reveal that many individuals lack familiarity with core Islamic finance principles, such as riba (interest), gharar (uncertainty), and maisir (gambling), as well as financial products like sukuk, mudarabah, and takaful.

This survey seeks to explore the extent of public awareness and understanding of Islamic finance in Bangladesh, focusing on critical areas identified in previous analyses. Findings indicate a general lack of familiarity with Islamic financial jargon, principles, and products.

For instance, terms like Mudarabah and Musharakah are poorly understood, with nearly 60% of respondents uncertain about their meaning. Similarly, foundational principles such as the prohibition of riba and the ethical obligations of fairness and transparency are recognized by less than half of the participants. The awareness of specific Islamic financial services, such as takaful (Islamic insurance) and microfinance products, is particularly limited, further highlighting knowledge gaps.

The implications of these gaps are profound, as they may hinder the broader adoption and effective utilization of Islamic financial systems in Bangladesh. Enhancing public understanding and awareness is essential for empowering individuals to make informed financial decisions and for leveraging Islamic finance's potential to promote inclusive economic growth. This research, therefore, aims to identify the key barriers to awareness and propose targeted strategies for improving financial literacy in Islamic finance, tailored to the Bangladeshi context.

Through its findings, this study contributes to ongoing efforts to bridge knowledge gaps, ensuring that Islamic finance principles and products are accessible and comprehensible to a broader audience. Such initiatives are vital for fostering trust, expanding the customer base, and supporting the long-term sustainability of Islamic finance in Bangladesh and beyond.

2. Literature Review

2.1. Understanding Islamic Finance

Islamic finance (IF) represents a financial system guided by Shari'a principles, emphasizing ethical and socially responsible practices. Its foundation aligns with the teachings of Islam, which prohibit interest (riba), excessive uncertainty (gharar), and gambling (maysir) in financial transactions. Alamad (2017) describes Islamic finance as a framework for financial activities rooted in Shari'a principles, aiming to ensure fairness, transparency, and mutual benefit. It is not limited to abstaining from interest-based transactions but also involves actively promoting risk-sharing and ethical investment. Central to its philosophy is the notion that money lacks intrinsic value, and profit is derived through legitimate trade or asset-backed transactions (Alamad, 2017).

Islamic finance products and services are designed to comply with Shari'a, addressing diverse customer needs. Core principles include avoiding haram (prohibited) activities, engaging on y in halal (permissible) investments, and ensuring profit-and-loss sharing (PLS) mechanisms (Boukhatem & Ben Moussa, 2018). The Qur'an explicitly forbids riba, emphasizing fairness in financial dealings: "Fear Allah and give up what remains [due to you] of interest, if you should be believers. And if you do not, then be informed of a war [against you] from Allah and His Messenger" (al-Baqarah 278-279). Similarly, gharar, which entails uncertainty or excessive risk, is prohibited to protect parties from ambiguous terms and potential exploitation (Iqbal & Mirakhor, 2011).

Although Islamic finance has shown remarkable growth globally, challenges remain. In Algeria, for example, Benamraoui (2008) found that the Islamic banking sector offers a limited range of products, focusing primarily on short-term financing. Credit risk was identified as a major barrier to the sector's expansion, reflecting broader issues faced by Islamic financial institutions in developing economies.

2.2. Types of Islamic Financial Products

Islamic financial institutions have developed various Shari'a-compliant products to meet the needs of diverse customers. Key offerings include:

1. Mudarabah (Trustee Finance): This partnership-based product involves profit-sharing, where one party provides capital, and the other offers expertise. Profits are distributed based on pre-agreed ratios, while losses are borne solely by the capital provider unless there is negligence or misconduct (Rahman, 2018).
2. Musharakah (Partnership Financing): In this joint venture, all partners contribute capital and share profits or losses based on their respective contributions. It promotes equitable risk-sharing and collaboration (Iqbal & Mirakhor, 2011).
3. Murabaha (Cost-Plus Financing): Under this arrangement, the bank purchases an asset and sells it to the customer at a markup, with payments made in installments or as a lump sum. The seller bears risks until delivery, ensuring transparency and fairness (IFSB, 2019).
4. Ijarah (Leasing): This product allows customers to lease assets, with an option to purchase at the lease's end. It offers flexibility while ensuring compliance with Islamic principles (Visser, 2009).
5. Bai Salam: A forward contract where payment is made in advance for goods delivered at a future date. It supports agricultural financing and provides liquidity to producers (Iqbal & Mirakhor, 2011).
6. Takaful (Islamic Insurance): This cooperative insurance model involves pooling resources to share risk among participants, eliminating elements of uncertainty and gambling (Kettell, 2010).
7. Qard Hassan (Benevolent Loan): Interest-free loans offered to those in need, focusing on financial inclusion and social welfare (Gait & Worthington, 2008).

These products showcase the versatility of Islamic finance in addressing contemporary financial needs while adhering to ethical and religious principles.

2.3. Awareness of Islamic Finance

Awareness is a critical factor influencing the adoption and acceptance of Islamic financial products. Research highlights varying levels of awareness across countries, reflecting differences in education, cultural factors, and market maturity. In the UK, Omer (1992) observed that awareness and preference for Islamic finance increased with religious commitment and education. Similarly, in Malaysia, Hamid and Nordin (2001) found that while consumers were aware of Islamic banking services, they often failed to distinguish them from conventional banking products.

In Australia, Rammal and Zurbruegg (2007) noted a significant interest in Islamic finance but identified a lack of understanding about its principles and operations. In Libya, Gait and Worthington (2009) found that while consumers were familiar with basic products like Musharakah and Qard Hassan, they lacked awareness of other offerings. Studies in Thailand and Pakistan revealed similar gaps, with customers showing limited knowledge of Islamic finance terminology and services (Lateh et al., 2009; Khattak & Rehman, 2010).

In Bangladesh, Chowdhury and Arifuzzaman (2013) demonstrated low awareness levels of Islamic finance among business students, despite their interest in learning more. This reflects the broader challenge of raising awareness in emerging markets. Similarly, in South Africa, Cheteni (2014) found that factors such as age, gender, and education significantly influenced awareness levels. Recent research in India by Islam and Rahman (2017) emphasized that while many individuals were willing to adopt Islamic finance, they lacked sufficient knowledge about its principles and operations.

2.4. Challenges and Opportunities

While Islamic finance offers numerous benefits, including reduced insolvency risks and protection against financial crises, it also faces challenges such as higher costs, limited product diversification, and inadequate awareness (Visser, 2009). Enhancing financial literacy and delivering superior customer experiences are critical to overcoming these barriers. By addressing these challenges, Islamic finance can expand its reach and contribute to inclusive economic growth, particularly in emerging markets like Bangladesh.

3. Methodology
3.1 Measurement development

Data have been collected using a structured questionnaire that was sent to targeted populations. Each respondent is asked to express his/her own level of understanding of Islamic finance. The survey questionnaire has composed of two sections. Demographic information like gender, age group, education qualification, religion, job experience, and professional information was collected under the First Section. The second section of the questionnaire includes questions on awareness and understanding of Islamic fiancé. Six basic Jargon about understanding Islamic Finance Basic Jargon, nine terminologies about understanding the Fundamental Islamic Finance Concepts and Rules, Six Knowledge of Islamic Finance

Services and Products, and Three Benefits and Knowledge share of Islamic Microfinance. The survey for this research used a three-point Likert scale ranging from 1 (Know) 2 (Don't Know) to 3 (No).

3.2 Population and Sample

All respondents who have bank accounts and are familiar with banking transactions make up the population for the current study. Using the formula $n=z2.$ [p*q]/d2, we were able to determine the sample size. P is the estimated percentage of the study variable or construct based on earlier research or pilot studies (70%), q = 1-P (30%), and d is the margin of error (5%). We discovered that the sample size was 384. A total of 400 populations at various levels made up the research sample, and 328 of them (82% of the total disseminated) replied to the survey. Between October 30 and December 15, 2022, the poll was taken.

According to Table 1, men made up 78.10% and women 21.30%. The average age of the respondents was 20–30 years old for 28.3%, 30–40 years for 51.4%, and 40–50 years or more for the remaining 20.30%. In terms of education, 61.7% of people had graduate degrees, compared to 38.3% who had bachelor's degrees. In terms of profession, 35.9% worked for the government or an autonomous body, 46.5% for corporations or the private sector, and 17.60% for any other type of job. 85.1% of those employed were Muslims, while the remaining 4.9% were non-Muslims.

Table 1: Research Sample Characteristics

Characteristic	Variables	Frequency	Percentage
Gender	Male	257	78.1
	Female	70	21.3
Age-group	20-30 Years	93	28.3
	30-40 Years	169	51.4
	40-50 years	57	17.3
	50 and above	10	3.0
Type of organization	Government/Autonomous	118	35.9
	Corporate/Private	153	46.5
	International/Multinational	24	7.3
	NGO/INGO	1	.3
	Others	33	10.0
Educational Qualifications	Bachelor	126	38.3
	Masters	203	61.7
Religion	Muslim	313	95.1
	Non-Muslim	16	4.9

The demographic analysis of the sample highlights a predominantly male composition, accounting for 78.1% of respondents, with females representing 21.3%. The majority fall

within the 30-40 years age bracket (51.4%), followed by 20-30 years (28.3%), suggesting a workforce primarily in their early to mid-career stages. Most participants are employed in corporate or private organizations (46.5%), with a notable proportion working in government or autonomous entities (35.9%), while smaller segments represent multinational organizations (7.3%) and others (10.0%), with minimal representation from NGOs (0.3%). Education levels are notably high, as 61.7% hold a master's degree, while 38.3% possess a bachelor's degree. Additionally, 95.1% of respondents identify as Muslim, reflecting the cultural or regional religious composition of the study area. This detailed demographic profile provides valuable insights into the characteristics of the population under investigation.

4. Data Analysis

Table: Reliability Analysis

Cronbach's alpha coefficient was used to calculate the internal consistency coefficients of the items included in the questionnaire. The Cronbach Alpha testing was used as it is the most well-accepted reliability test tool applied (Sekaran, 2003).

Table 2: Reliability Analysis

Variables	No. Item	Cronbach's Alpha
Understanding of Islamic Finance's Basic Jargon	06	0.861
Understanding of The Fundamental Islamic Finance Concepts and Rules	09	0.878
Knowledge of Islamic Finance's Services and Products.	06	0.874
Benefits and Knowledge share of Islamic Microfinance	03	0.863

The reliability analysis of the study variables demonstrates strong internal consistency across all constructs, as evidenced by the Cronbach's Alpha values, which exceed the commonly accepted threshold of 0.7. The variable measuring understanding of Islamic Finance's basic jargon, with six items, achieves a Cronbach's Alpha of 0.861, reflecting high reliability. Similarly, understanding the fundamental concepts and rules of Islamic Finance, assessed through nine items, shows excellent reliability with an Alpha of 0.878. Knowledge of Islamic Finance's services and products, also measured by six items, achieves a comparable Alpha of 0.874, indicating robust consistency. Lastly, the benefits and knowledge-sharing aspects of Islamic Microfinance, measured with three items, report an Alpha of 0.863, further emphasizing reliability. These results confirm that the measurement tools used are reliable for assessing the constructs, ensuring the accuracy and validity of the data collected for this study.

Table 3: Descriptive Statistics on the Understanding of Islamic Finance's Basic Jargon

No	Items	Mean	SD
IFBJ1	**Sukuk** (an Islamic financial certificate, equivalent to a bond in Western finance)	2.5137	.75746
IFBJ2	**Mouzaraa** (sharecropping, a contract restricted to one crop cycle)	2.5198	.77719
IFBJ3	**Qardh Al-Hassan** (an interest-free loan)	2.2766	.88660
IFBJ4	**Al-Istisna Bay** (a contract to manufacture an item that does not yet exist)	2.5593	.73479
IFBJ5	**Bay' Al-Tawliyah** (Sale at cost without making a profit or losing money)	2.5410	.75243
IFBJ6	**Riba** (Any additional funds returned over the original loan amount or interest when taking out a loan)	2.0973	.93197

The descriptive statistics for understanding Islamic Finance's basic jargon provide valuable insights into participants' familiarity with fundamental terms. Among the six items assessed, the mean scores suggest a moderate level of understanding across the board, with values ranging from 2.0973 to 2.5593 on the Likert scale. The highest mean was observed for **Al-Istisna Bay** (2.5593, SD = 0.73479), indicating a relatively better understanding of this term compared to others. Conversely, **Riba** (interest) recorded the lowest mean score (2.0973, SD = 0.93197), suggesting less familiarity with this critical concept. Terms like **Mouzaraa** (2.5198, SD = 0.77719) and **Bay' Al-Tawliyah** (2.5410, SD = 0.75243) exhibit moderate understanding with low variability, implying consistency in responses. On the other hand, **Islamic loans (Qardh Al-Hassan)** show a slightly lower mean (2.2766, SD = 0.88660), coupled with higher variability, indicating diverse levels of awareness among participants. These findings highlight areas where knowledge enhancement initiatives could be prioritized, particularly on terms like **Riba** and **Qardh Al-Hassan,** which are foundational to Islamic Finance principles.

Table 4: Descriptive Statistics on the Understanding of the Fundamental Islamic Finance Concepts and Rules

No	Items	Mean	SD
UIFCR1	In Islam, dealing with transactions including riba (interest) is severely forbidden.	1.8632	.92203
UIFCR2	In Islam, engaging in transactions based on gharar (uncertainty) is severely forbidden.	2.3131	.86383
UIFCR3	Islam expressly forbids investing in companies engaged in illegal activity.	1.9240	.94207
UIFCR4	Any type of speculation or gambling is outlawed under Sharia (maisir).	1.9970	.94191
UIFCR5	Contracting parties in Islamic finance share in the transaction's gains, losses, and risks.	2.0426	.93932
UIFCR6	Do you think Islamic microcredit is moral investing?	2.1884	.87009
UIFCR7	You may be familiar with Islamic microfinance.	2.1429	.84875
UIFCR8	The consumer is obligated to pay interest when service fees are paid on the borrowed funds.	2.2644	.85894
UIFCR9	Is the general population lacking in knowledge about Islamic microfinance?	2.0274	.94797

The descriptive statistics on understanding fundamental Islamic Finance concepts and rules reveal varying levels of familiarity among respondents. The mean scores range from 1.8632 to 2.3131 on the Likert scale, indicating moderate to limited understanding of the assessed concepts. The lowest mean score (1.8632, SD = 0.92203) pertains to the strict prohibition of riba (interest), suggesting it is less well-understood despite its centrality to Islamic Finance principles. Similarly, the prohibition of engaging in illegal company activities scored a low mean (1.9240, SD = 0.94207), indicating a need for greater awareness. Concepts such as the prohibition of gharar (uncertainty) transactions (mean = 2.3131, SD = 0.86383) and the moral implications of Islamic microcredit (mean = 2.1884, SD = 0.87009) scored higher, reflecting a relatively better understanding.

Awareness of broader Islamic microfinance principles, such as shared risks and rewards (mean = 2.0426, SD = 0.93932) and public knowledge gaps (mean = 2.0274, SD = 0.94797), shows moderate understanding, though variability in responses suggests uneven familiarity across participants. These findings underscore the importance of targeted educational initiatives to deepen understanding, particularly of foundational rules like the prohibition of riba and the ethical dimensions of Islamic microfinance. Such efforts can enhance the effective application of these principles within financial systems.

Table 5: Descriptive Statistics on the Knowledge of Islamic Finance's Services and Products

No	Items	Mean	SD
KIFSP1	Mudarabah (Trustee finance, also known as Girard)	2.0426	.95542
KIFSP2	Musharakah (Partnership Financing)	2.3465	.86338
KIFSP3	Murabaha (Sale at a specified profit margin)	2.2523	.91074
KIFSP4	Ijarah (Leasing)	2.2857	.88542
KIFSP5	Takaful (Islamic Insurance)	2.2067	.91389
KIFSP6	Do you know about Islamic microfinance products?	2.3343	.80248

The descriptive statistics on the knowledge of Islamic Finance's services and products indicate varying levels of familiarity among respondents, with mean scores ranging from 2.0426 to 2.3465 on the Likert scale. The lowest mean (2.0426, SD = 0.95542) corresponds to **Mudarabah (trustee finance),** suggesting that this concept may require more awareness and education. In contrast, **Musharakah (partnership financing)** has the highest mean score (2.3465, SD = 0.86338), reflecting relatively better understanding among participants. Other concepts, such as **Murabaha (sale at a specified profit margin)** with a mean of 2.2523 (SD = 0.91074), and **Ijarah (leasing)**, scoring 2.2857 (SD = 0.88542), indicate moderate familiarity with commonly used Islamic financial services.

Similarly, **Takaful (Islamic insurance)** achieved a mean score of 2.2067 (SD = 0.91389), showing a reasonable level of awareness. The question assessing general knowledge about Islamic microfinance products yielded a mean of 2.3343 (SD = 0.80248), indicating that participants have a broad understanding of available products but may lack depth in specific areas. These results highlight the need for targeted initiatives to enhance comprehensive knowledge of Islamic finance products, particularly for less familiar concepts like Mudarabah. Strengthening understanding in these areas is crucial for improving participation and confidence in Islamic financial systems.

Table 6: Descriptive Statistics on the Benefits and Knowledge Share of Islamic Microfinance

No	Items	Mean	SD
BIF1	Shari'a principles, Islamic Finance is not restricted to Muslims only and is available to non-Muslims as well	2.0608	.94479
BIF2	Islamic Finance is about conducting business in a fair and transparent manner	1.9514	.96149
BIF3	Islamic finance is free of interest and does not support illegal commercial activities.	1.9271	.95994

The descriptive statistics on the benefits and knowledge sharing of Islamic microfinance reflect varying levels of awareness among respondents. The mean scores range from 1.9271 to 2.0608 on the Likert scale, indicating moderate familiarity with the principles and values of Islamic microfinance. The highest mean (2.0608, SD = 0.94479) is observed for the statement highlighting that Islamic finance, based on Shari'a principles, is accessible to non-Muslims as well as Muslims. This indicates a reasonably good understanding of the inclusivity of Islamic finance systems.

The concept that Islamic finance emphasizes fair and transparent business practices has a slightly lower mean score (1.9514, SD = 0.96149), suggesting the need for increased awareness of its ethical foundation. The lowest mean score (1.9271, SD = 0.95994) pertains to the understanding that Islamic finance is free from interest and does not support illegal activities, despite its critical importance in differentiating Islamic finance from conventional systems.

These findings underscore the necessity of targeted knowledge-sharing initiatives to enhance understanding of the ethical, inclusive, and interest-free nature of Islamic microfinance. Such efforts are essential for fostering broader acceptance and adoption of these financial principles, especially among those unfamiliar with its foundational concepts.

Table 7: Descriptive Statistics Understanding of Islamic Finance's Basic Jargon

No	Items	Yes %	Yes Frequency	I do not know %	I do not know Frequency	No %	No Frequency
IFBJ1	**Sukuk** (an Islamic financial certificate, equivalent to a bond in Western finance)	16.1	53	67.5	222	16.4	54
IFBJ2	**Mouzaraa** (sharecropping, a contract restricted to one crop cycle)	17.6	58	69.6	229	12.8	42
IFBJ3	**Qardh Al-Hassan** (an interest-free loan)	29.2	96	56.8	187	14.0	46
IFBJ4	**Al-Istisna Bay** (a contract to manufacture an item that does not yet exist)	14.6	48	70.5	232	14.9	49
IFBJ5	**Bay' Al-Tawliyah.** (Sale at cost without making a profit or losing money)	15.8	52	69.9	230	14.3	47
IFBJ6	**Riba** (Any additional funds returned over the original loan amount or interest when taking out a loan)	38.9	128	48.6	160	12.5	41

The data on understanding Islamic Finance's basic jargon reveals notable variability in participants' familiarity with key terms. For example, Sukuk, a term representing Islamic financial certificates equivalent to bonds, is unfamiliar to a majority, with 67.5% indicating they "do not know" and only 16.1% affirming understanding. Similarly, Mouzaraa (sharecropping for one crop cycle) has 69.6% expressing lack of familiarity, while just 17.6% understand it. The concept of Islamic loans (Qardh Al-Hassan) shows slightly better awareness, with 29.2% understanding the term, though 56.8% remain unaware. Al-Istisna Bay, Bay' Al-Tawliyah, and Riba exhibit similar trends of limited awareness, with 70.5%, 69.9%, and 48.6% of participants, respectively, indicating unfamiliarity. Interestingly, Riba (interest) stands out with the highest proportion of participants (38.9%) indicating understanding, reflecting its central role in Islamic finance teachings. Overall, these results highlight a significant knowledge gap in foundational jargon, emphasizing the need for targeted educational programs to enhance understanding and support wider adoption of Islamic finance practices.

Table 8: Descriptive Statistics Understanding of the Fundamental Islamic Finance Concepts and Rules

No	Items	Yes		I do not know		No	
		%	Frequency	%	Frequency	%	Frequency
UIFCR1	In Islam, dealing with transactions including riba (interest) is severely forbidden	50.2	165	36.5	120	13.4	44
UIFCR2	In Islam, engaging in transactions based on gharar (uncertainty) is severely forbidden	24.6	81	57.1	188	17.6	58
UIFCR3	Islam expressly forbids investing in companies engaged in illegal activity	47.4	156	40.4	133	11.9	39
UIFCR4	Any type of speculation or gambling is outlawed under Sharia (maisir)	42.6	140	43.5	143	13.4	44
UIFCR5	Contracting parties in Islamic finance share in the transaction's gains, losses, and risks	40.1	132	45.6	150	13.7	45
UIFCR6	Do you think Islamic microcredit is moral investing?	29.2	96	48.6	160	21.9	72
UIFCR7	You may be familiar with Islamic microfinance	28.0	92	43.5	143	28.0	92
UIFCR8	The consumer is obligated to pay interest when service fees are paid on the borrowed funds	24.3	80	52.6	173	22.2	73
UIFCR9	Is the general population lacking in knowledge about Islamic microfinance?	41.6	137	45.6	150	12.2	40

The data on understanding the fundamental Islamic finance concepts and rules highlights significant variability in awareness among participants. The concept of riba (interest) being strictly prohibited in Islam is relatively well-understood, with 50.2% of respondents indicating awareness, although 36.5% remain unsure. Similarly, 47.4% are aware that investing in companies involved in illegal activities is forbidden, yet a notable 40.4% express uncertainty. The prohibition of speculation or gambling (maisir) under Sharia is recognized by 42.6%, while 43.5% are uncertain, reflecting a balanced split in awareness. Concepts related to sharing gains, losses, and risks in Islamic finance show moderate understanding (40.1%), with 45.6% unsure.

The notion of Islamic microcredit as moral investing sees lower levels of certainty, with 29.2% agreeing and 48.6% uncertain. Awareness of Islamic microfinance in general and the public's knowledge gaps about it also demonstrate mixed results, with uncertainty levels ranging from 43.5% to 45.6%. Interestingly, concepts like gharar (uncertainty) prohibition and service fees on borrowed funds have the lowest levels of agreement, with only 24.6% and 24.3% awareness, respectively.

These findings underscore the need for targeted educational initiatives to bridge knowledge gaps, particularly on foundational principles like gharar and maisir, and to strengthen understanding of ethical and operational practices in Islamic finance.

Table 9: Descriptive Statistics Knowledge of Islamic Finance's Services and Products

No	Items	Yes		I do not know		No	
		%	Frequency	%	Frequency	%	Frequency
KIFSP1	Mudarabah (Trustee finance, also known as qirad)	43.5	143	47.7	157	8.8	29
KIFSP2	Musharakah (Partnership Financing)	25.8	85	60.5	199	13.7	45
KIFSP3	Murabaha (Sale at a specified profit margin)	30.1	99	56.5	186	12.8	42
KIFSP4	Ijarah (Leasing)	28.9	95	57.4	189	13.7	45
KIFSP5	Takaful (Islamic Insurance)	32.5	107	53.8	177	13.4	44
KIFSP6	Do you know about Islamic microfinance products?	18.2	60	53.5	176	27.4	90

The data on the knowledge of Islamic Finance's services and products reveals varying levels of familiarity among participants, with significant gaps in understanding. The concept of **Mudarabah (trustee finance)** is relatively well-known, with 43.5% of respondents indicating familiarity, though 47.7% remain unsure. **Musharakah (partnership financing),** a foundational principle of Islamic finance, is understood by only 25.8%, while 60.5% report uncertainty. Similarly, knowledge about **Murabaha (sale at a specified profit margin)** and **Ijarah (leasing)** shows moderate awareness levels, with 30.1% and 28.9%, respectively, indicating familiarity, while over half of the participants are unsure about these terms.

Awareness of **Takaful (Islamic insurance)** is slightly higher, with 32.5% expressing familiarity, yet 53.8% remain uncertain. The lowest awareness is observed regarding general knowledge of **Islamic microfinance products,** where only 18.2% of respondents affirm familiarity, and 53.5% indicate uncertainty, while a notable 27.4% explicitly state they lack knowledge.

These findings highlight critical gaps in understanding Islamic finance products, emphasizing the need for widespread educational initiatives and outreach programs. Focusing on promoting awareness of less familiar concepts, particularly microfinance products, could enhance the effective adoption and utilization of Islamic financial services.

Table 10: Descriptive Statistics on the Benefits and Knowledge share of Islamic Microfinance

No	Items	Yes		I do not know		No	
		%	Frequenc	%	Frequenc	%	Frequency
BIF1	Shari'a principles, Islamic Finance is not restricted to Muslims only but is available to non-Muslims	40.7	134	47.4	156	11.6	38
BIF2	Islamic Finance is about conducting business in a fair and transparent manner	47.7	157	43.5	143	8.5	28
BIF3	Islamic finance is free of interest and does not support illegal commercial activities	49.8	164	42.6	140	7.6	25

The analysis of the benefits and knowledge-sharing aspects of Islamic microfinance highlights moderate awareness levels among respondents, with notable areas requiring further clarification. The statement that **Islamic finance adheres to Shari'a principles and is accessible to both Muslims and non-Muslims** is affirmed by 40.7% of participants, while 47.4% express uncertainty. Similarly, **the emphasis on conducting business in a fair and transparent manner** is recognized by 47.7%, reflecting a relatively higher level of understanding, yet 43.5% remain unsure. The most widely understood principle is that **Islamic finance is interest-free and does not support illegal activities,** with 49.8% affirming this knowledge, although 42.6% still indicate uncertainty.

These findings underscore the need to improve awareness regarding the inclusive and ethical nature of Islamic finance. Despite some understanding, the substantial proportion of participants expressing uncertainty across all items indicates that targeted educational campaigns and knowledge-sharing platforms are essential to bridge these gaps. Enhanced awareness could foster a more inclusive understanding of Islamic microfinance's benefits and principles.

5. Analysis of Gaps in Islamic Finance Awareness

The analysis reveals several critical gaps in awareness and understanding of Islamic finance principles, services, and products among respondents. These gaps are evident across various dimensions:

1. Basic Jargon and Terminologies: Many respondents are unfamiliar with foundational Islamic finance terms such as Mudarabah (trustee finance), Mouzaraa (sharecropping), and Bay' Al-Tawliyah (sale at cost). For example, terms like Mouzaraa are unknown to 69.6% of participants, indicating a lack of familiarity with key operational terminologies.

2. Fundamental Principles: While riba (interest) prohibition is relatively better understood, with 50.2% awareness, concepts like gharar (uncertainty) prohibition are less well-known, with only 24.6% of participants indicating familiarity. This shows a significant gap in understanding foundational principles of Islamic finance.

3. Services and Products: Awareness of Islamic financial services such as Murabaha (sale at a specified profit margin) and Ijarah (leasing) is moderate, with around 30% of respondent's familiar, but over 50% remain uncertain. Awareness of Takaful (Islamic insurance) and Islamic microfinance products is particularly low, with significant proportions of respondents either unaware or unsure.

4. Benefits and Ethical Principles: While the ethical and inclusive nature of Islamic finance is acknowledged by some participants (e.g., 49.8% recognize that it is interest-free and prohibits illegal activities), a substantial portion (over 40%) remain uncertain about these principles. The idea that Islamic finance is not exclusive to Muslims and its emphasis on fair, transparent business practices also lack widespread understanding.

5. Islamic Microfinance: Awareness of Islamic microfinance products and their moral and ethical dimensions is notably low, with less than 30% of participants affirming knowledge in several areas. Over half of the respondents are uncertain about the scope and principles of microfinance within Islamic finance.

6. Implications of the Gaps

These gaps suggest a pressing need for:

- Public Awareness Campaigns: Targeted efforts to educate diverse populations about Islamic finance principles, services, and ethical foundations.
- Training and Workshops: Hands-on training to demystify complex terminologies and operational principles.
- Inclusive Knowledge Platforms: Resources designed for both Muslim and non-Muslim audiences to emphasize the universal applicability of Islamic finance.
- Enhanced Communication Strategies: Simplifying jargon and connecting concepts to real-world applications to improve reliability and understanding.

Addressing these gaps is crucial for the growth and acceptance of Islamic finance, fostering inclusivity, and strengthening its position as an ethical alternative in the global financial ecosystem.

7. Conclusion

The findings from the analysis reveal significant knowledge gaps among respondents regarding key aspects of Islamic finance, including its jargon, fundamental concepts, services, products, and microfinance principles. While some participants demonstrate a basic understanding of concepts such as riba (interest) prohibition, Musharakah (partnership financing), and the ethical, inclusive nature of Islamic finance, a substantial proportion remains uncertain or unaware. This highlights the critical need for targeted educational initiatives to enhance comprehension and promote informed engagement with Islamic financial systems.

The data also underscores the importance of addressing misconceptions and providing clear information on less familiar concepts, such as Islamic microfinance products and specific terminologies like Mudarabah and Bay' Al-Tawliyah. By bridging these knowledge gaps, stakeholders in Islamic finance can improve public understanding, drive greater adoption, and support the broader goal of creating ethical, transparent, and inclusive financial ecosystems. These efforts will be vital for fostering trust and participation in Islamic finance among diverse populations.

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Productive Impacts of Selected Social Safety Net Programs in Bangladesh

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Abstract

Social safety net programs (SNPs) are non-contributory transfer programs designed to support the poor and vulnerable groups within society. In Bangladesh, SNPs are crucial for combating poverty. The objective of this paper is to estimate the productive impacts of selected SNPs at the household level in Bangladesh. Using a propensity score matching method, the study identified matched comparison groups to evaluate the impact. The outcome variables examined include: (i) changes in labour allocation/employment, (ii) income-generating activities, (iii) investments in land, tools, animals, family enterprises, durable goods and housing improvements, (iv) investments in human capital, and (v) changes in coping mechanisms. The study used data from the Household Income and Expenditure Survey for the programs of (1) old age allowance (OAA), (2) allowances for the widowed, destitute and deserted women (AWDD), (3) agriculture rehabilitation (ARP), (4) stipend for primary students (SPE), (5) stipend for secondary students (SSHE). The study found that ARP is a promising means of a safety net for marginal and small farmers. It generated significant positive impacts on farm and non-farm income-generating activities, labour allocation, and investment in agricultural assets and inputs. OAA and AWDD contributed positively to some productive outcomes, but the impacts were not significant. SPE and SSHE had minimal short-term impacts on productive outcomes but hold potential for long-term benefits through human capital development. When considering all SNPs collectively, the study found significant impacts on various productive outcomes. Beneficiaries showed greater engagement in non-farm activities while reducing their involvement in farm activities. Moreover, beneficiaries earned significantly higher income from non-farm sectors compared to the farm sector. To enhance the productive impacts of SNPs, this paper suggests that policymakers should design such interventions that bring productive outcomes. This will help not only to protect but also to promote the well-being of poor and vulnerable populations.

Key Words: Social safety nets, Productive impacts, Propensity score matching, Bangladesh

1. Introduction

The most crucial challenge facing Bangladesh is the eradication of widespread poverty. Although poverty reduction in Bangladesh has shown notable progress since the 1990s, the progress has been relatively modest. Despite the poverty rate declining by 1.7% per year at the national level, 31.5% of households were still living in poverty in 2010 (HIES, 2010). Consequently, poverty reduction remains one of the primary agendas of the government of

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Bangladesh. Like many other developing countries, safety net programs (SNPs) in Bangladesh play a vital role in poverty alleviation. SNPs are non-contributory transfer programs designed to support poor and vulnerable groups in society. These programs can be implemented by both the public sector (government and aid donors) and the private sector. Over the last few decades, many countries worldwidehave adopted various SNPs to assist underserved and vulnerable populations, serving as instruments for both 'protection' and 'promotion'. In Bangladesh, SNPs are more than just necessary in combating poverty, especially as an increasing portion of the population falls into the extreme poverty category. Due to the high prevalence of shocks and the large vulnerable population, the government of Bangladesh has steadily increased safety net expenditures since the mid-1990s. However, the benefits provided by these programs remain grossly inadequate.

Safety net programs directly transfer resources to poor people. Bangladesh has a comprehensive portfolio of both food and cash-based SNPs. There are approximately 99 such programs, although the number varies depending on the source. These safety net programs can be categorisedbased on the specific objective they are designed to achieve. For example, programs may aim to develop infrastructure, provide educational incentives to poor students, mitigate the consequences of disasters, or offer livelihood support to disadvantaged groups such as widows, the deserted and destitute, the elderly, and people with disabilities. There are 30 public SNPs in the country covered in the Household Income and Expenditure Survey (HIES) 2010. This study focuses on interventions including (1) old age allowance, (2) allowances for the widowed, destitute and deserted, (3) agriculture rehabilitation program, (4) stipend for primary students,and (5) stipend for secondary students. Among the 30 SNPs, 5 are conditional cash transfers, 10 are unconditional cash transfers, 9 are public works or training-based cash or in-kind transfer programs, and the remaining 6 are emergency or seasonal reliefprograms. In developing countries like Bangladesh, where most of the poor live in rural areas and derive a significant share of their income from agriculture, agricultural development could be a key strategy to reduce poverty. One SNP is directly linked to agriculture – the agriculture rehabilitation program. This program is designed to rehabilitate small and marginal farmers and provide them with agricultural inputs such as seeds, fertilizers and farm machinery (power tillers, threshers, batch driers, irrigation pumps, etc.) through the Department of Agricultural Extension. The objective of this paper is to estimate the productive impacts of selected safety net programs in Bangladesh.

The remainder of the paper is structured as follows: Section 2 provides a brief literature review. Section 3 describes the data sources and explains the empirical methods. Section 4 presents the results and discussions, and Section 4 concludes the paper.

2. Literature Review

Safety net first entered the discourse during the 1980s in response to the (presumably short-term) adverse effects of structural adjustment programs (Adato et al., 2004). The concept gained further prominence in East Asia during the financial crisis (Paitoonpong et al.,

2008). Over the past several decades, many countries around the world have implemented SNPs to support vulnerable and underserved populations, serving as tools for both 'protection' and 'promotion'. Early proponents of SNPs viewed them as instruments of equality. Given their significance and implications forprotecting the underserved, SNPs have consistently attracted considerable attention from researchers, development practitioners, academics, and policymakers.

Devereux (2002) argued that social safety nets can be conceptualized as publicly funded transfer programs aimed at 'consumption smoothing', rather than 'mean shifting', objectives. The study identified three key determinants of poverty: low labour productivity, vulnerability, and dependency. Del Ninno and Dorosh (2003) evaluated the merits of food and cash transfers using propensity score matching and found that the marginal propensity to consume (MPC) wheat is essentially zero for food for work and 0.51 for food for education programs. They also found that the MPC for wheat from small wheat transfers to poor households is approximately 0.25, while the MPC for wheat from cash transfers is zero. Sadoulet et al. (2004) explored the role of conditional cash transfer programs as risk management instruments for the poor. The Independent Evaluation Group of the World Bank (2011) highlighted that evidence from impact evaluations conducted over the past decade offers valuable lessons for designing effective social safety net programs. Grosh et al. (2010), drawing on extensive research, policy, and operational documents from academia and the World Bank's work in over 100 countries, provided practical guidance on designing and implementing safety nets. Their work includes insights on defining eligibility criteria, selecting beneficiaries, setting and paying benefits, and monitoring and evaluating programs and systems.

Matin and Hulme (2003) argued that programs such as income-generatingvulnerable group development (IVVGD), which aim to protect and promote livelihoods, should be a major focus of anti-poverty strategies, as they have significantly expanded the outreach of poverty reduction activities. Ahmed et al. (2007) assessed the relative efficacy of food and cash transfers in improving the food security and livelihoods of the ultra-poor in Bangladesh, focusing on four interventions: (i) IGVGD, (ii) Food Security VGD, (iii) Food for Asset-creation component of the Integrated Food Security program, and (iv) the Rural Maintenance Program. Morshed (2009) analyzed public SNPs using secondary data and previous studies, focusing on program classification, impacts, design, coverage, targeting, leakages and management. In targeting the beneficiaries, Morshed cited Ahmed (2004), who found that 11% of participants in the public employment services (PES) program did not meet any eligibility criteria, while almost none of the beneficiaries met at least three criteria. The World Bank (2006) estimated that '27% of VGD beneficiaries were not poor'. From these findings, Morshed inferred a 26% inclusion error in the VGD program. Morhsed also noted that some programs target geographically food-insecure Upazilas, which improves the likelihood of reaching the poor but excludes highly food-insecure households in less-poor areas. Ahmed and Del Ninno (2000) assessed the efficiency of two major food programs (the VGD and the Rural Development (RD) programs of the World Food Program) in terms of income and grain consumption among beneficiaries. They

concluded that these programs were inefficient in delivering food transfers, as the gap between allocated resources (cash and kind) and receivedresources, termed leakage, was significant. Ahmed and Del Ninno (2002) evaluated the Food for Education program and found it successfully increased enrolment, improved attendance, and reduced dropouts, with higher enrolment gains for girls than boys. Using both quantitative and qualitative approaches Alim and Sulaiman (2009) examined the role of BRAC's Polli Shomaj in improving targeting effectiveness for the 100-day employment generation program. Barkat et al. (2011) evaluated 15 major public SNPs in Bangladesh across three categories: conditional programs, unconditional programs, and education stipends. They reviewed official guidelines for eligibility, kind and amount, frequency and delivery mechanisms while also investigating the implementation mechanisms at the field level. Khandker et al. (2011) examined the impacts of rural road projects using household-level panel data from Bangladesh. They found that rural road investments significantly reduced poverty by increasing agricultural production, raising wages, lowering input and transportation costs, and increasing output prices. Begum and Wesumperuma (2012) reviewed the Old Age Allowance program in Bangladesh and found that it provided immense value to the country's poor older population by meeting basic needs, enhancing their status within families, and improving psychosocial well-being through a reliable income source.

Based on the available information, it can be concluded that there is a considerable gap in examining the productive outcomes of SNPs inhouseholds in Bangladesh. Against this backdrop, the present study aims to estimate the productive impacts of SNPs, which is expected to provide valuable insights for researchers, practitioners and policymakers.

3. Methodology
3.1 Conceptual Framework

Figure 1 illustrates the potential pathways linking the SNPs and productive outcomes. SNPs may influence productive outcomes through the following channels:

- Human capital formation: By facilitating the accumulation and improvement of human capital (training and educational attainment), SNPs can enhance productivity and increase employability over the long term.
- Income generation: By alleviating credit, savings and liquidity constraints, SNPs can encourage income-generating activities. This includes changes in labour allocation (on-farm and off-farm), investments in productive activities (e.g., use of inputs), and accumulation of productive assets (e.g., farm tools, land, livestock, durable goods, or housing improvement).
- Risk management: Regular and predictable provision of SNPs (cash or in-kind) can improve a household's ability to manage risk and shocks. This involves avoiding detrimental coping strategies (e.g., distressed sales of productive assets, children dropping out of school); avoiding risk-averse production strategies (safety or eat first approaches), and increasing riskier but more profitable activities (e.g., cultivating higher-value crops).

- ■ Local economy effects: The injection of cash into local economies can stimulate product and labour markets, generating multiplier effects that benefit the broader community.

- ■ Gender inequalities: SNP support can enhance women's participation in productive activities by addressing inefficiencies in household resource allocation and decision-making, thereby reducing gender inequalities and empowering women.

Several potential outcome variables emerge from these pathways. This study focuses on measuring productive outcomes such as labour allocation (farm vs off-farm, adults vs children), asset accumulation or protection from distress sale, changes in input use and crop production techniques, human capital accumulation, investments, and risk-coping strategies at the household level.It is important to note that while SNPs can directly influence productive outcomes,these impacts may also be mediated by external factors beyond the control of the program, such as price fluctuation, weather conditions, and access to input and output markets.

In our selected SNPs, some programs explicitly focus onincome-generating interventions. For example, VGD includes a training component on income-generating activities. This training helps poor and vulnerable people acquire new skills, enhancing their productivity and income. By providing beneficiaries with higher skills, the training enables them to adopt various coping mechanisms during crises, improve their employability and strengthen their ability to bear risks. Investing often involves considering risks, and poor individuals typically avoid risky investments. SNPs help smooth consumption and enable vulnerable populations to manage greater risks. Through increased income, savings, and provision of insurance via regular and predictable transfers, SNP beneficiaries can (i) avoid detrimental risk-coping strategies, (ii) avoid risk-averse production strategies, and (iii) take greater risks by engaging in more profitable crops and/or activities. Additionally, SNPs contribute directly to asset and infrastructure creation. For example, food or cash-for-work programs support the construction and rehabilitation of rural roads and communication facilities. The labour requirements of these programs alter household labour allocation decisions and may influence the functioning of local labour markets, thus generating multiplier effects.

Cash transfer programs for education, targeted at school-going children, contribute to building lifetime human capital. Such programs attract students from poor families by reducing school dropout rates. Additionally, educational attainment fosters cognitive development and equips children from disadvantaged households with valuable skills. A reduction in dropoutrates can also increase the demand for constructing additional school buildings, reflecting the program's broader impact. Cash for education programs not only improve human capital but also promote better nutritional and sound health outcomes. These factors collectively enhance productivity and improve employability in the long term.

Furthermore, all SNPs, whether or not they include explicit income-generating components, enhance people's Sability to invest in productive activities, accumulate assets, reallocate labour, and adopt innovative and sustainable technologies such as new crop varieties. .

By strengthening these capacities, SNPs play a significant role in reducing vulnerability and fostering resilience for the future.
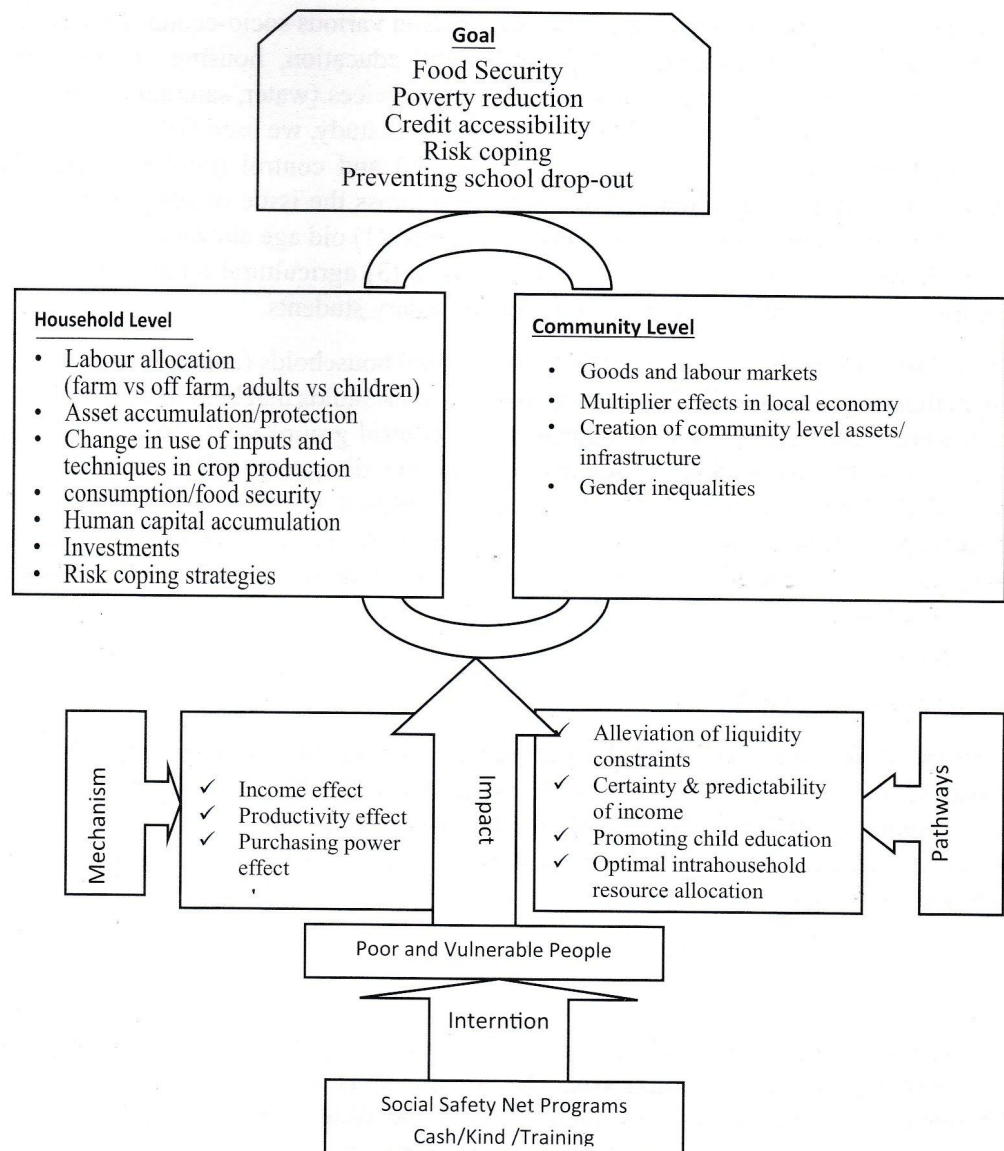
Figure 1: Conceptual framework (Source: Partially adapted from Ben Davis, 2012)

3.2 Data Sources

The main data source for this study is the Household Income and Expenditure Survey (HIES), 2010. The survey employed a two-stage stratified random sampling design. The sample comprised 612 primary sampling units (PSUs) across the country, distributed as follows: 164 PSUs in urban areas, 392 PSUs in rural areas and 56 PSUs in small metropolitan

areas. In the first stage, approximately half of the PSUs were selected. In the second stage, 20 households were randomly chosen from each selected PSU, resulting in a sample size of 12,240 households. Of these, 7,840 households were from rural areas, and 4,400 from urban areas. The survey collected comprehensive data on various socio-economic aspects, including age, sex, marital status, religion/ethnicity, education, housing, income and expenditure, consumption, employment, health, basic services (water, sanitation, electricity etc.), asset descriptions and social safety nets. For this study, we used HIES as a single cross-section data to identify treatment (beneficiaries) and control (non-beneficiaries) groups for estimating the productive outcomes. To address the issue of limited program representation, we focused on a reduced set of programs: (1) old age allowance, (2) allowances for the widowed, destitute and deserted women, (3) agricultural rehabilitation, (4) stipend for primary students, and (5) stipend for secondary students.

Out of 12,240 households surveyed in HIES 2010, 2,989 households (approximately 25%) were beneficiaries of various SNPs. To avoid overlap, households that benefit from a single program were identified. Eligible non-participants (control group) were also considered. Beneficiaries of the six selected programs were further disaggregated. Analysis of the HIES 2010 data revealed that 2,325 participants benefitted from these programs, with 1,795 participants benefitting from a single selected SNP. We selected 3,840 households in the probit model as a probable control group, excluding the treated group of 1,795 households. We analyse the impact of each program separately, as well as the combined impact of all programs.

3.3 Analytical Framework

To assess the impact of social safety net interventions on productive outcomes, we used the propensity score matching (PSM) method. The impact is defined as the difference between the actual outcome and the counterfactual outcome-what would have occurred without the intervention. Formally, the average impact of program intervention can be expressed as follows (Rubin 1974, Ravallion 2008):

$$\overline{I} = \frac{1}{n}\sum_{i=1}^{n}\left(Y_i^T - Y_i^C\right) \qquad (1)$$

where I is the 'impact', Y represents the interpretable impact indicator, T and C represent the treatment group and control (comparison or non-treated) group respectively, i represents the sample units, and n is the sample size. The true impact is unknown because one of Y^T and Y^C remains unknown during evaluation (Dehjia and Wahba, 2002). To elaborate, the phenomenon can be described using the following equation:

$$E(I|X) = E\left(Y_i^T - Y_i^C|X\right) = E(Y_i^T|X, T) - E\left(Y_i^C|X, C\right) \qquad (2)$$

Where X is a vector of the covariates, and E represents expected values. This program impact is commonly referred to as the 'average impact of the treatment on the treated' (ATT).

PSM requires two key assumptions: conditional independence assumption (CIA) and the common support or overlap condition. The CIA indicates that conditional on the observable variables included in the PSMs (probit or logit models), the outcome variables are independent of treatment. In other words, the outcomes for the control group and treatment group would be the same in the absence of the SNP intervention. Therefore, variables that satisfy the CIA must be included in the analysis.

We have employed Nearest Neighbor Matching (NNM) to pair treated and untreated households. The NNM method selects households from the control group as matching partners for beneficiaries based on the closest propensity scores (Abadie et al., 2004; Abadie and Imbens 2006; Gilligan et al., 2009). Using this approach, the treated and control groups are matched to ensure the households are very similar, except for their participation in the program. The steps of the PSM process are as follows: First, select outcome variables and covariates (X) from the HIES dataset, ensuring that the X covariates satisfy the CIA. Second, apply probit regression to estimate P(X), and the probability of being treated, exclude households that do not satisfy the common support or overlap condition, and finally estimatethe average treatment effect using equation (2).

3.4 Productive Outcome Indicators at the Household Level

The productive outcomes of SNP at the household level chosen for analysis are (i) changes in labour allocation/employment, (ii) income-generating activities, (iii) investments in land, tools, animals, family enterprises, durable goods and housing improvements, and (iv) changes in coping mechanisms. A list of measurable outcome indicators is presented in Table 1. These outcomes are thematically divided into four categories:

Labour allocation: There is an ongoing debate about whether SNP interventions reduce work effort. To address this, we focus on selecting specific indicators to assess labour allocation. One key evaluation question is whether SNP intervention increases labour participation in both farm and non-farm sectors. We used average working hours per day per worker in farm and non-farm activities as outcome indicators to measure the impact.

Income-generating activities: A persistent concern in policy discussions surrounding safety nets is whether their provision reduces effort in other income-generating activities. Therefore, income-generating activities are included as a separate category of outcomes. These activities are assessed by indicators such as the number of total income-generating activities per household per active member, total farm income (crop, vegetables, livestock and fishery), and total non-farm income (small business, cottage, industries etc).

Investment: Household investment indicators evaluate whether the SNP interventions lead to increases or changes in the value of farm assets, land purchases, agricultural expenditures, and durable goods and housing improvements. The study measures household expenditures on tools, animals, family enterprises, durable goods, and housing improvements per person, converted into real terms.

Shock and coping indicators: Shock and coping indicators include measures such as per capita consumption, distressed sales, migration, and school dropout etc. Per capita consumption or per capita income is a useful summary measure of household welfare. However, income shocks cause consumption levels to decline in the absence of adequate shock-coping mechanisms. Since consumption tends to be less volatile than income, it can serve as a better indicator of household stability and welfare. Consumption smoothing can reflect a household's ability to cope with shocks and provide insights into differences in permanent income. Other indicators related to shocks and coping mechanisms include insurance, migration and school dropout rates.

Table 1: Measurable productive outcome indicators

Outcomes	Indicator	Measurable indicator	Imputed from HIES
Labour allocation	Relative farm employment	Average working hours per day per worker in farm activities	Calculating daily male and female hours in farm activities
	Relative non-farm employment	Average working hours per day per worker in non-farm activities	Calculating daily male and female hours in non-farm activities
	Relative male employment	Average working hours per day per male worker	Calculating daily male hours
	Relative female employment	Average working hours per day per female worker	Calculating daily female hours
Income-generating activities	Total no. of activities involved	Number of total activities per household per active member	Calculate the total number of activities for each active member of the household and add them to obtain the total for each household
	Total farm income	Per household	Calculating total farm income (crop, vegetables, livestock and fishery)
	Total non-farm income	Per household	Calculating total non-farm income (small business, cottage)
Investments	Own land per person	Own land per person	Own land per person at the household level
	Agricultural Expenditure per Household	Real expenditure on tools, animals, family enterprises per household	Calculate household expenditure on tools, animals, family enterprises, and convert into real terms
	Real expenditure on durable goods & housing improvement	Real expenditure on durable goods & housing improvements per person (may be a separate variable for the highlighted things)	Calculate household expenditure on tools, animals, family enterprises, durable goods & housing improvements per person, convert into real terms

Shock and coping mechanism	Asset sold	Dummy variable: if assets sold due to shock =1	
	Per capita consumption	The sum of the per capita value of food and non-food expenditures. As it is expected that households cope better in shock due to SSN so the variability in per capita food consumption would be lower for the beneficiary group. Thus, per capita food consumption expenditure due to the shock is considered an indicator variable.	Food expenditures are based on reports of the consumption of 33 different foods in the 14 days before the interview from purchases, stocks and amounts received as gifts, barter or in-kind payments. These quantities were converted to values using household self-reports of purchases. Non-food expenditures include purchases of fuel and lighting, cosmetics and other expenses, washing and cleaning expenses, transport/ travel and other misc. charges, ready-made garments, clothing material and tailoring, footwear, medical treatment expenses, housing-related expenses, etc.
	Insurance	Dummy variable: if the income received from insurance (life, health or general) =1	
	Migration	Dummy variable: if any family member migrates to another place =1	
	School dropout	Dummy variable: if any family member (child) drops out of school =1	

4. Results and discussion

4.1 Variables in PS Estimation

The dichotomous dependent variable is a dummy variable representing program participation (treated=1). We selected variables such as the age, gender, and education of the household head, as well as house characteristics, land ownership, and other factors considered when participants are chosen in the SNPs. Two-thirds of the 22 exogenous variables listed in Table 2 have higher standard deviations than their means, indicating wide variations. Regional dummy variables are included to account for rural and urban-specific factors that may influence selection for program participation. We used these variables, along with higher-orderterms for age and education, to identify the best-specified probit models based on balancing properties.

Table 2: Observable characteristics included as dependent & independent variables

Variables	Description	Mean	Standard Deviation
Dependent variable			
Dummy	Dummy variables (Treated=1)	0.32	0.47
Independent variables			
AgeH	Age of household head (years)	46.14	14.26
EduH	Education of household head (years of schooling	2.78	3.96
EduHD	Household head is illiterate=1	0.62	0.49
Land	Owned land (decimal)	35.87	92.66
LandO	Operated land (decimal) (land+lease in – lease out)	54.45	107.11
FishD	Dummy variable (Income from fish=1)	0.15	0.36
FamS	Total household size	4.48	1.83
Chl514	No of Children 5-14 years	1.12	1.08
Male65	No of males 65+ years old	0.12	0.33
Female62	No of females 62+ years	0.15	0.36
FemaleP	Female % in household	52.03	19.28
Disable	Member disable=1	0.12	0.33
Deprat	Dependency ratio	82.68	70.26
DayL	At least a member works as day labour=1	0.03	0.18
mstatF	Women currently unmarried, separated, divorced etc. =1	0.21	0.40
Elect	Electricity connection=1	0.24	0.43
Room	Room per person in the household	0.48	0.50
Landless	Dummy variable (landless=1)	0.66	0.47
Homeless	Dummy variable (homeless=1)	0.10	0.30
R1	Regional dummy (Rural=1)	0.69	0.46
R2	Regional dummy (Urban municipality=1)	0.22	0.42
R4	Regional dummy (Urban SMA=1)	0.08	0.27

4.2 Impact of all selected SSNPs

The impact of all selected SNPs on the outcome variables is presented in Table 3. Various indicators were analysed across four areas: labour allocation, income-generating activities, investment and shock coping strategies. The average treatment effect on the treated (ATT) was significant for income-generating activities (farm), labour allocation (farm self-employment), and investment (agricultural inputs). Interestingly, access to credit was found to reduce the reliance on the safety net. These findings indicate that the SNP system is significantly contributing to productive outcomes. This suggests that policymakers should view the SNP system as encompassing a diverse set of interventions to maximize its impact.

Table 3: Impact of selected SNPs on productive outcomes

Outcome indicators	Beneficiary households (treatment)	Non-beneficiary households (control)	ATT	t value
Number of farm activities	0.46	0.57	-0.12***	-3.61
Working hours per day	12.68	12.10	0.58	1.51
Number of non-farm activities	1.88	1.62	0.27	3.12
Self-employed in farm activities	0.43	0.70	-0.26***	-5.68
Self-employed in non-farm activities	0.47	0.40	0.07	1.80
Salary of non-farm activity (Tk.)	22802.31	15296.02	7506.29***	3.08
Income from crop production (Tk.)	13826.44	25079.59	-11253.14***	-4.52
Income livestock production (Tk.)	3350.57	5229.11	-1878.54	-1.75
Value of agricultural assets (Tk.)	2980.84	7504.59	-4523.76	-1.59
Spending on fertilizer use (Tk.)	886.08	1475.50	-589.42***	-3.45
Total credit (Tk.)	9576.39	9894.30	-317.91	-0.17
Asset sold	0.03	0.04	-0.01	-1.10
Land purchased	0.02	0.03	-0.01	-0.82
Non-food expenditure (Tk.)	48777.29	46348.63	2428.67	0.68
Expenditure on durable goods (Tk.)	4380.38	6674.58	-2294.20	-1.13
Food expenditure (Tk.)	447919.63	451198.02	-3278.39	-0.24
Education expenditure (Tk.)	1065.98	990.20	75.78	0.58

4.3 Impact of Individual Programs

At the individual program level, the analyses revealed the following findings. Out of 17 outcome indicators, OAA had a positive but statistically insignificant impact on five productive outcomes: number of non-farm activities, self-employed in non-farm activities, value of agricultural assets, total credit and expenditure on durable goods. AWDD showed a positive but statistically insignificant impact on several non-farm activities: self-employed in non-farm activities, salary from non-farm activities, income from crop production, spending on fertilizer use, total credit and assets sold. Although OAA and AWDD contributed positively to labour allocation in non-farm activities and facilitated investment in agricultural assets, these results were not statistically significant, preventing firm conclusions regarding their impact on productive outcomes. Access to credit may also have increased due to OAA and AWDD, but this remains inconclusive. ARP significantly influenced several farm-related activities: the number of farm activities, self-employment in farm activities, income from crop production, income from livestock production, value of agricultural assets, spending on fertilizer use, land purchased, and food expenditure. However, ARP had a negative and significant impact on several non-farm activities and self-employment in non-farm activities. Despite this, the analysis suggests that ARP serves as an effective safety net for marginal and small farmers. The average treatment effects on the treated (ATT) for ARP demonstrated significant positive impacts on: income-generating activities (farm and non-farm), labour allocation (farm and non-farm self-employment), and investment (agricultural assets, inputs). SPE had

a positive and significant impact on: self-employment in non-farm activities, indicating that beneficiary households used the stipend for small trading. SSHE had a positive and significant impact on: income from crop production, income from livestock production, spending on fertilizer use, total credit and education expenditure. Beneficiary households appeared to use the stipend for investments in crops and livestock production. ATT for SSHE was significant for: non-farm self-employment and investment in agricultural assets.

Overall, the safety net in primary and secondary education programs (SPE and SSHE) appears to have a limited short-term impact on productive outcomes. However, in all the selected SNPs, several non-farm activities and salaries from non-farm activities were positively and significantly influenced. This indicates that beneficiary households engaged more in non-farm activities, highlighting the potential of these programs to support non-farm income generation.

Table 4: Impact of selected SSNPs on productive outcomes

Outcome indicators	OAA	AWDD	ARP	SPS	SSHSFS	All SNPs
Number of farm activities	-	-	+*	-	+	-*
Working hours per day	-	-	-	-	-	+
Number of non-farm activities	+	+	-*	+	-	+*
Self-employed in farm activities	-	-	+*	+	+	-*
Self-employed in non-farm activities	+	+	-*	+*	+	+
Salary of non-farm activity (Tk.)	-	+	+	+	+	+*
Income from crop production (Tk.)	-	+	+*	-	+*	-*
Income from livestock production (Tk.)	-	-	+*	+	+*	-
Value of agricultural assets (Tk.)	+	-	+*	-	+	-
Spending on fertilizer use (Tk.)	-	+	+*		+*	-*
Total credit (Tk.)	+	+	-	+	+*	-
Asset sold	-	+	+	-	+	-
Land purchased	-	-	+*	-	+	-
Non-food expenditure (Tk.)	-	-	-	-*	-	+
Expenditure on durable goods (Tk.)	+	-	+	-	+	-
Food expenditure (Tk.)	-	-	+*	-	+	-
Education expenditure (Tk.)	-	-	+	+	+*	+

Note: '*' = Significant.

5. Conclusions

It is evident from the quantitative analyses that SNPs have had a significant impact on labour allocation, income-generating activities, investment and coping mechanisms. While not all programs are explicitly designed to yield productive outcomes, some have shown a considerable positive influence on beneficiaries' productivity. Programs related to primary and secondary education have had limited short-term effects on productive outcomes. In

contrast, the Agricultural Rehabilitation Program (ARP) emerges as a highly promising safety net for marginal and small farmers, with significant positive impacts on income-generating activities (farm), labour allocation (farm self-employment), and invest-ment (agricultural inputs). Other SNPs may not have a strong impact on productivity, but they still deliver positive contributions. These findings suggest that safety net programs are valuable tools for supporting vulnerable groups. The enhance the effectiveness of SNPs in Bangladesh, the following recommendations are made: i) clearly define the scope and objectives of social safety nets, ii) Increase the amount of benefits provided through safety net programs, iii) Incorporate training components into SNPs alongsidecash or in-kind support and iv) establish and maintain a strong management information system (MIS) to monitor program effectiveness. These recommendations aim to maximize the productive outcomes of SNPs, ensuring that they better serve the vulnerable populations they are designed to support.

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Communication Skills of a Trainer: Challenges and Way-forward

Dr. Md. Arizul Islam Khan*

Abstract

Trainer is the most important element in a training situation. Very few people are born as a trainer, and most of them who wish to be a good trainer require training for him, to prepare himself to be a ready-man. As a result, those few who are born trainers benefit from training and their effectiveness is enhanced. The trainer who is enthusiastic, energetic and genuinely interested in both the subject and getting his or her message across will evoke the greatest response from the trainees (FAO, 2012). The trainer who lacks interest in training, who has little or no enthusiasm for the subject of the training and who merely goes through the motions of training is a failure. Such a trainer wastes not only his or her own time but also that of the trainees. Communication requires a sender, a message, and a recipient, although the receiver need not be present or aware of the sender's intent to communicate at the time of communication; thus communication can occur across vast distances in time and space. Communication requires that the communicating parties share an area of communicative commonality (Kadam & Others, 2018). The communication process is complete once the receiver has understood the message of the sender.

Key Words: Communication, Transmitter, Message, Receiver, Pedagogy and Andragogy, Barriers, Body-Language, Feedback, The 7Cs

1. Introduction

Training is a process whereby people acquire capabilities to aid in the achievement of organizational goals (Mathis and Jackson, 2007). Training is a process of teaching new employees the basic skills to perform their jobs (Dessler, 2019). Successful training is that which produces the desired result lies almost entirely in the hands of the trainer. In the trainer's hands lies the heavy responsibility for ensuring that the trainees achieve the maximum possible from the training. The communication in a successful training program shows with orally and physically.

A measure of the success of training is the relationship that develops between trainer and trainees. In a sound, productive training situation there is a mutual respect and trust between them, with the trainer taking care to ensure that even the weakest trainee performs to the highest possible level, and the trainees feeling a desire within them to achieve. In this situation the trainer is the motivator, and the trainees are the motivated.

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2. Objectives

The main objective of this article is to address the basic elements necessary for the effective preparation, implementation and evaluation of training, with the aim of that training being "to get the message across".

The special objectives are

(i)   to achieve that intended to provide guidance to trainers in the skills of conveying their message successfully and transferring related information;

(ii)   to familiarize the participants with the elementary principles of successful communication of information and to enhance awareness of the factors that interferes with its effectiveness; and

(iii)   to assist the trainers to identify and become acquainted with the essential elements of getting the message across and becoming an effective communicator.

3. Conception of Effective Communication

Communication (from Latin "communis", meaning to share) is the activity of conveying information through the exchange of thoughts, messages, or information, as by speech, visuals, signals, writing, or behavior. Communication requires a sender, a message, and a recipient, although the receiver need not be present or aware of the sender's intent to communicate at the time of communication; thus communication can occur across vast distances in time and space. Communication requires that the communicating parties share an area of communicative commonality (Bogdanov 2012). The communication process is complete once the receiver has understood the message of the sender.

Many types of communications can be cited, such as: Non-verbal communication, Oral communication, Business communication, Written communication and its historical development, Effective communication etc. Successful communication depends on the message being received by the receiver intact and interpreted by the receiver to have the same meaning as when transmitted. Communication specialists compare the way people communicate to the way a radio transmission takes place. That is to say --

*Transmitter (Speaker/writer) ® Message ® Receiver (Listener/reader)

a) Three types of transmission are identified:
- Spoken
- Written
- Gesture

b) Transmission is in code:
- Spoken language
- Written language
- Gestures / sometimes referred to as "body language"

4. Pedagogy and Andragogy (Science of Teaching)

Pedagogy is the study of teaching Methods and how teachers deliver curriculum; including the strategies teachers use, the theories they apply and how they assess students' learning (Shah, 2025).

Andragogy (Knowledge, the theory of adult learning) attempts to explain why adults learn differently than other types of learners. Adults learn differently than young people. But more importantly, their reasons for learning are very different.

Learning is a means to an end, not an end in itself. Adults often seek-out learning opportunities to cope with life changes. They usually want to learn something that they can use to better their position or make a change for the better. They are not always interested in knowledge for their own sake.

4.1 Techniques for Teaching Adults

- Use problem-oriented instruction; case studies, simulations, problem solving, groups make the instruction relevant to their situation.
- Instruction should be about work-oriented memorization of content.
- Instructors need to put their egos aside and not be afraid to have ideas and instruction challenged. Don't be afraid to give up control.
- Make the environment comfortable and leave time for breaks.
- Trainers should use open-ended questions to bring out the vast experiences of the adult learners.

5. The Importance of Oral Communication

As a trainer much of your effectiveness is measured by your ability to speak with clarity and conviction in getting your messages across.

Men and women in training positions are expected to be highly competent at presenting ideas, giving directions and explaining procedures. In fact, this quality of being an effective communicator is generally considered to be an essential element of the effective trainer's skills.

Communicating clearly – "getting your message across" - is not an inherited ability; people are not born with it. It is a learned skill developed through planning and practice.

6. Consciously Input the Message

The trainers should study the training methodology carefully prior to conducting any session. But it is not meant to be used that methodology as a 'Recipe Book'. The trainers should use their experience and creativity, and adapt the ideas provided in this suitably to match the contexts, levels of the trainees and their needs, within the framework. The trainers should plan each session by themselves with the help of the methods (Kumar, 2000). The trainers are also expected to read and collect additional material in planning some of the sessions.

For examples, Trainers can use of several training methods:

a) Demonstration by the trainer with observation and imitation by the trainee
b) Discussion and debate
c) Discussion with groups
d) Lecture presentation
e) Problem solving and experimentation
f) Role-playing
g) Research
h) Singing
i) Games
j) Electronic media such as TV, video and film

7. Suggestions for Presentation

The trainer should attempt to elicit from the trainees their experiences with transmission, interference and ways of avoiding interference, which are well within the purview of trainee experience. Trainees should be asked to tell the course participants about good communicators and poor communicators they have known, describing why they are memorable. The reasons they give should be related to the types of interference and ways in which interference was or could have been avoided (Husain, 2002).

Such a discussion invariably brings out other indirectly related aspects of spoken communication, which provide points of reference when subjects in later modules are being dealt with.

8. Barriers and Interference to Effective Communication

Many barriers we can see creates disturbances, like; Physical barriers, System design, Attitudinal barriers, Ambiguity of words/phrases, Individual linguistic ability, Physiological barriers, Presentation of information and various types noises etc. Frequently the message suffers from interference. That is, something interferes with the message between its transmission and reception and distorts it. The followings are some types of interference:

a) **Weak transmission**
- Speaking too softly
- Speaking in a flat voice (monotone) without inflection
- Not speaking in a direct line with the receiver
- Insufficient volume of transmission to prevail over competing transmissions and localized noise (static)

b) **Garbled transmission**
The transmitter (speaker) often scrambles the contents of the message so that the facts it contains are not in logical order and often appear unrelated.

c) **Wrong language**
The transmitter may use words, terms and expressions unknown to the receiver.

d) Pitching message at the wrong level

The speaker may transmit information in a context beyond the experience of the receiver (this may involve the use of wrong language). This is sometimes called "transmitting or talking over the receiver's head". Examples are - teaching food control procedures to people who have no experience in food safety or food processing or transmitting detailed and profound scientific messages to a receiver without a scientific background.

e) Receiver not receiving

- Receiver turned off (gone to sleep!)
- Tuned into another transmitter
- Transmission too weak
- Strength of receiver diminished (lack of interest - boredom)
- Receiver distracted by a competing focus of interest (an attractive person walks by)
- Receiver fatigued

f) Competing transmissions

The receiver may be unable to select between transmissions (too many people talking at once).

g) Overloading the message

The receiver does not possess the capacity to retain all of the information contained in the message. This frequently leads to receiver confusion/fatigue and anxiety.

9. Ways of Avoiding Interference

As a trainer it is essential that you get your message across-otherwise your effort to train will be wasted. The trainer's have to capacity to avoid the Interference in a training session like as follows:
- Speak up and out
- Speak slowly and deliberately
- Use language that the receiver understands
- Do not talk over the receiver's head
- Ensure you have the attention of the receiver
- Only transmit your message in suitable surroundings where there is no, or little, competition
- Make the message succinct (as few words as possible) and transmit it in the simplest terms
- Plan the message in logical order

10. Communication Hazard

a) Nervousness, forgetfulness and losing track

At one time or another all trainers (transmitters) experience these problems. Two ways to prevent these difficulties are:

i) Use notes

ii) Rehearse the presentation of your message

Speakers familiar with their message seldom, if ever, suffer from severe interference.

b) Letting the audience gets to you - becoming defensive

Do not get defensive when a trainee asks a question or makes a statement that is or appears to be a criticism of or an attack on you. As a trainer and communicator you must retain your objectivity. To become defensive and subjective quickly signals to the listeners that you are not sure of yourself or your facts and they may assume that what you are saying is unreliable. This can lead to loss of your credibility.

c) Criticism of your Presentation

Look upon critical statements or questions as a form of feedback. The information in them can tell you whether you are on the right track. However difficult it might be, handle yourself pleasantly and diplomatically, using responses such as:

1) I'm glad you brought that up. It's an interesting question
2) Perhaps you could explain that a little more before we have a look at it
3) I can understand how you feel about the matter, but try and look at it this way
4) I understand your concerns. Let's try to come up with some alternatives
5) I can see that the matter is of great concern to you. Let's discuss it personally at the coffee break.

10.1 Respond of Reactions

It is important that your trainees see you as somebody who is honest with them. A good part of this quality of openness is reflected in the way you respond to people when they question your statements, instructions or opinions. Listeners question speakers because they have not received (not understood) the message, or because it is unclear, or because the details are vague. Generally, they are not challenging the speaker as a person; they are simply seeking clarification. In answering questions, make sure you understand the question. If you do not understand the question, ask the questioner to repeat it. If you still do not understand it, start questioning the questioner.

11. Interpersonal Communication

Interpersonal communication involves the information, ideas, and feelings being exchanged verbally or non-verbally between two or more people. Face-to-face communication often involves hearing, seeing, and feeling body language, facial expressions, and gestures (Terra 2014).

In other terms, interpersonal communication is exchanging information, meaning, feelings, and opinions between two or more people via verbal and non-verbal means. Although we

mentioned "face-to-face" communication previously, today's technology compels us to expand its definition to include media such as phone calls and online messaging.

11.1 Types of Interpersonal Communication

Interpersonal communications divided into four distinct types.
   a) Verbal
   b) Listening
   c) The Written Word
   d) Non-Verbal

11.2 How to Build Interpersonal Communication Skills

Building interpersonal communication skills can help you improve your relationships, increase your ability to collaborate effectively with others, and enhance your overall success in life. Here are some tips to help you develop them:

   a. Practice Active Listening
   b. Use Clear and Concise Language
   c. Master Nonverbal Communication
   d. Show Empathy
   e. Build Rapport
   f. Be Open to Feedback

12. Instruction Summery
To be a successful communicator you have to -
   • Use your voice effectively
   • Know your subject
   • Use ICT to present your session
   • Know what you want to say
   • Prepare your message carefully
   • Arrange your points logically
   • Display interest and enthusiasm
   • Sound convincing and sincere

13. Tips may be followed by the Trainers

   a) Start on time
   b) Read the introduction of each session before conducting
   c) Note the important points
   d) Tell those at the beginning of each session
   e) State the objectives of every session
   f) Tell and use variety of strategies in conducting the session
   g) Honour the expertise of the group

h) Maintain equity (e.g. male/female) during group formation
i) Ensure that everyone can see and hear
j) Focus on your own strengths
k) Relieve stress
l) Supply essential reading material to take home
m) Request feedback
n) Finish on time

14. The 7C's of Communication

We must consider 7C's of communication
- Clear
- Concise
- Concrete
- Correct
- Coherent
- Complete
- Courteous

15. Conclusion

Listeners will probably not be able to remember everything you have said, especially if you have presented several ideas. A short, simple restatement of the essential messages helps the listeners to remember and respond (FAO, 2012). You must find out whether you got your message across. Checking this may also introduce you to views of your listeners that were not apparent to you or reveal misunderstandings that need to be quickly corrected. In addition, checking often helps listeners feel involved: they are being consulted.

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Towards Managing Change in the Civil Service of Bangladesh

Md. Zahirul Haque*

Abstract

This article is an effort to explore and develop ideas for a need-based curriculum that is an essential aspect of designing an effective training program. That may inspire a trainee to develop a high level of self-confidence to examine economic, political and social aspects of a crisis to remove hurdles to ensure sustainable development. It's a fine tuning for making professionals, and teaching them how to develop awareness, professionalism, knowledge and active participation (participatory)that may immensely benefit other fellow participants. To ignite inner talents for seeing issues from different perspectives. Their keen insights assist others in fostering a spirit of cooperation and in building common ground. Their contribution will demonstrate maturityand establish a new depth of understanding in the relevant fields. A motivational belief to create an image will be unlocked. A genius of high order is certainly necessary to fulfill the demand of society, to answer some insistent demand of the times. Otherwise,any invention would have been forgotten or put aside till circumstances more propitious for its use arose. An effective training program can prepare employees very efficiently.

Key Words: Effective Training, Need Assessment, Behavioral Change, Efficient Bureaucrats, Organizational Effectiveness, Professional Development

1. Introduction

The main purpose of training is the creation of skilled human resources, essential elements of good governance. They take responsibilities on their shoulders out of conscience and devotion to the nation. But to implement laws, a government needs efficient bureaucratic mechanisms. They can stifle economic growth, discourage innovation and investment, and perpetuate inequality. To build efficient administration in any country, appropriate institutional arrangements, proper enforcement of laws, and a skilled workforce are necessary. The Public Service Commission of Bangladesh is tasked with selecting a skilled workforce according to the government's needs. Similarly, a competent and qualified Election Commission is required to conduct free, fair and inclusive elections which reflects popular choice. All these institutions operate within a defined framework. However, when faced with a disaster or crisis, the true test begins. To overcome such a national crisis, we need competent, efficient, experienced, and civic-minded individuals, along with a tested and informed civil society that provides correct guidance. Effective coordination among different departments is essential, and for this, the provisions of the law are necessary, and to disseminate ideas and goals to the employees, effective and proper training is imperative.

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2. Objectives

The main objectives of this article are:
i.   To make a comparative study among three institutions of the Asia-Pacific Center for Security Studies (APCSS), USA; Civil Service College (CSC) of Singapore with Bangladesh Public Administration Training Center (BPATC), Bangladesh;
ii. To find out the opportunities, challenges and weaknesses of BPATC; and
iii. To explore the strength and opportunities of APCSS and CSC to fit in BPATC.

3. Rationale of the Study

People's perception about the civil service of Bangladesh is now-a-days encountering challenges due to some prevailing bad examples in the bureaucracy. For example, providing services to the citizens, showing positive attitudes, thirst for knowledge, good culture, fostering cooperation etc. have become scarce in the government offices. So, why this is happening we need to assess. Training effectiveness, their contributions and perceived attitude after the training need to be measured to develop efficient and skilled manpower. The training goals and objectives should be determined accurately before training starts.

3.1 Why Measure Effectiveness?

To determine if the training benefits the people. To see the effect on organizational performance and determine the training's return to uncover issues in the training process and improve its effectiveness.

3.2 How to Measure?

Academy to Innovative HR (AIHR) author Shani Jay suggested the following four steps to measure referring to the Kirkpatrick Model of evaluating the results of training and learning programs.

a) Reaction: How do people directly respond to training?
b) Learning: What knowledge and skills they acquire?
c) Behavior: What change occurred in the behaviors of employees after training?
d) Impact: How are organization's goals impacted?

4. Methodology

i)   Review training modules to get practical knowledge about effective training programs.
ii) Interviewing stakeholders to get ideas about benefits they are getting.
iii) Literature review.
iv) Analysis of experiences achieved during service life as a civil servant.

5. Visit Training Institutes

The author has reviewed training modules of three training institutes and experience of four countries to observe field level events and their views about problems and the way forward. He attended all these training courses. A brief is stated below:

5.1 'Managing Change in the Singapore Civil Service' under the 'Matt-2 Training Program'

- It was about a study of successful governance and economic reform based almost entirely on the effective development of human resources.
- To discover the main reform policies which drove these developments, and the underlying strategies which were utilized to realize the reforms, the approaches and techniques which were used, and the reasons for the success and any failuresduring the reform processes.
- Finally, to identify and understand what aspects of the Singapore process may be useful in guiding or supporting the reform process in Bangladesh.

5.2 Asia-Pacific Center for Security Studies

It's a College of Security Studies that offers Executive Courses for mid-career military officers and civilian officials to build lasting relationships, enhance mutual understanding, and foster cooperation for comprehensive security in the Asia-Pacific region. The course consists of three required elements: (i) a core curriculum that examines the economic, political, social and military aspects of comprehensive security, (ii) an Advanced Studies Program of elective courses, and (iii) a Professional Enhancement Program providing computer and English language courses.

5.3. Institute of Management

The author as one of the members of a team visited the Institute of Management under the State University of Jakarta, Indonesia. Their purpose mission was "Encourage Civil Servants" to enhance their motivation to upgrade their performances and positive values and work culture to increase competitiveness, and to apply accountability principles.

5.4 Experience in South Korea

The author as a member of a team visited Samsung factory in 2005 where he learned a new idea regarding marketing/promotion of goods of a company. In the Samsung policy, a salesman is assigned to make a survey (instead of setting any targets), on the consumers about the requirement of any item, types of services it provides, what changes of features they want, and based on the statistical data the company manufactures goods/brands and facilities or accessories.

6. Major Findings

- Try to find solutions where problems exist.
- Frequent review meetings with employees' help to identify problems.
- Don't impose decisions on the employees, rather share with them, listen to them, make it participatory.
- Participatory norm setting creates ownerships, develop code of conduct.
- Learning by journey is an effective tool.
- Frequent change of policy creates a negative attitude on employees.
- Repeated stimulations help in retaining memory.
- Exercise sharpens memory.
- Mentoring is a training method that involves transferring knowledge, skills, and experience from one person to another.

6.1 Example of Good Practices

Recently, the author visited a readymade garments factory in Gazipur with a beautiful environment and sincere workers. A few female workers were wearing green jackets. This is an indication of their pregnancy. The whole factory is so alert for those female workers. It has a daycare center with sleeping places for the children that assures female workers to work peacefully. Their shift break for 5 different floors has a 15-minute gap from each other so that smooth movement of workers is ensured. The manager, administration stands at the entry point with a smiling face, as if he is there to receive workers. If the management becomes caring for its employees, production is enhanced remarkably.

6.2 Few Bad Instances That Create Image Crisis

- A senior professor at Dhaka University made a PowerPoint presentation in 2003 using handwritten slides having data/statistics up to 1992. He didn't even hesitate to admit his inability to teach the participants/trainees with updated knowledge and information.
- A senior secretary of Bangladesh while visiting the USA, left the seminar to meet his children living in a different city far away from the seminar place.
- A joint Secretary of Bangladesh while attending a seminar in Sri Lanka, went shopping and set his juniors to attend in his place.
- A bus driver in Singapore, who was assigned to bring Bangladeshi trainees to the training center on time, became annoyed when he realized that officers were making unnecessary delays. So, he commented- "that's why Bangladesh can't develop".

6.3 Good Example of Singapore

How Singapore has made such a tremendous development just in one generation which Europe and America took two centuries. Their civil service academy designed courses in this way so that their trainees coming out find easily their relevant jobs. The entrepreneurs make liaison with the academic authority so that they can design a need-based training program. The civil servantsof Singapore follow this formula: a) Think Ahead, b) Think Across and c) Think Again before finalizing any project document.

7. Training and Development

Effective Training develops immediate change, analytical power, cognitive power, attitude, and competition that support human resource management. This analytical power is the topmost purpose of education that teaches us proper management talent and knowledge (Aguinis et al., 2009; Stewart et al., 2024). Rosemary Harrison has shown the shift in learning and development. Firstly, unfold the meaning of learning and development in the information age, which is also called digital age or multimedia age, and secondly, it explores points of wastage, overburden and unevenness in learning and development, and thirdly presents the learning and development lean. The future of training and development is lean learning and development which means learning with least possible excess or deficit and waste. Learning and development are not a burden on the training process. It is the optimum utilization of training resources and components. It is planning to yield the best possible results with the least consumption of time and budget (Harrison, 2005).

Training plays a role to immediate changes in effectiveness, while development is related to the progress of longer-term organizational and employee goals. But the terms are often used interchangeably. Training and development have historically been topics within adult education and applied psychology but have within the last two decades become closely associated with human resource management, talent management, human resources development, and knowledge management. Germany has an elaborate vocational training system, whereas the United States and the United Kingdom are considered to generally have weak ones (Thelen, 2004).

Training is teaching, or developing in oneself or others, any skills and knowledge or fitness that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance, that is professional development (Speck & Knipe, 2005). Mentoring is a training method that involves transferring knowledge, skills, and experience from one person to another.

8. Modernization of Modules

In the early days, 1960s and 70s, theory-based research through trial-and-error intervention was the method of training (Bell et al., 2017). And subsequently new training methods such as the use of computers, television, case studies, and role playing were introduced to get better results. The 1980s focused on how employees received and implemented training programs, and encouraged the collection of data for evaluation purposes, particularly management training programs. The ideas of training and development became popular in the 90s with the concept of lifelong learning fostering a positive culture of training and development.

Since the 2000s, training has become more trainee-focused, which allows those being trained more flexibility and active learning opportunities. These active learning techniques include exploration/discovery learning (Birdi et al., 1959).

9. Self-Realizations/Hypothesis

Training and development encompass three main activities: training, education, and development. The only thing that is constant is change. Change culture, an overview that ensures improvements in the civil sectors. Changing in the mindset of civil servants. Colonial regulations and general orders need to be rewritten to instruction manuals (Ho, 2007).

10. Research Gap

From the personal experience of the author, he has identified the following areas as gaps while formulating training modules:

10.1 Needs Assessments

Most importantly Key Performance Indicators (KPIs) are set to measure the effectiveness of the training. KPIs can vary based on the training program and organizational needs but may include training metrics such as employee performance, productivity, knowledge acquisition, customer satisfaction, or employee engagement. Carry out a pre-training assessment to identify the baseline of employees' knowledge, skills, or performance levels before the training program (Brown, 2002).

But the author's experience says that at BPATC, the participants were not asked about their needs for the current job responsibilities. His observations about APCSS, USA; CSC, Singapore, that these centers evaluated their achievements and exchanged views for further improvement. In BPATC, Dhaka, he undergone several training courses. But when he wanted their suggestions of 'Senior Staff Course' with the previous batch he came to know that all modules are being prepared traditionally. Feedback from the participants is not being considered when preparing modules for the new courses. Assessment can predict the degree of effectiveness of training and development programs and how closely the needs were met, the execution of the training (i.e., how effective the trainer was), and trainee characteristics (e.g., motivation, cognitive abilities). (Tannenbaum & Yukl, 1992).

10.2 Principles

- Improving self-efficacy, which increases the learner's personal belief that they can fully comprehend the teachings (Aik & Tway, 2006).
- Maintaining a positive attitude, as an uncooperative attitude towards learning could hinder the individual's capability to grasp the knowledge being provided.
- Increasing competence, which is the ability for an individual to make good decisions efficiently.

10.3 Motivation

Creating a positive and dynamic attitude can help employees achieve their highest level of productivity. This issue should be focused seriously. Because it can create an engaged workforce that enhances individual performance.

10.4 Feedback

Feedback helps bridge any gaps between outcomes and organizational goals by providing insights into how well the training aligns with desired competencies and performance metrics. Traditional constructive feedback is not a modern acceptable method as the training is not equitably distributed. Rather, to address these disparities, authorities may implement diversity policies and mentorship programs to provide extra support to underrepresented groups.

11. Recommendations

i)   Appreciation by the centers, creation of interest inside the minds of trainees.
ii) Do's & don'ts, protocol/bylaws of state function; diplomatic relations.
iii) Annual survey among citizens to get feedback about services rendered by the bureaucrats.
iv) Generally, genius people introduce new ideas but if the current society is not capable of receiving the concepts, it is useless like an unseen wildflower whose fragrance is wasted on the desert air.
v)   A modern Research and Development (R&D) center in the training institutes may be very effective in this purpose.
vi) A training center must be equipped with the latest technology as well as the most brilliant trainers to support continuous improvement.
vii) The employees are the ones who know the problems within their respective areas and the best suited to find the right solutions.
viii) Regular reforms in a training institute are needed in long term policy making and priority setting.
ix) Gantt Chart, a graphical representation, is a very good tool and should be followed to avoid waste of time. It saves time and money by setting priority and pragmatic check list of tasks.

12. Areas of Application

- To be applied to all foundation courses for the civil servants.
- Authorities/employers should be approached for suggestions when designing training.

13. Inference

All the public institutions should be made stable, effective and protected from any irregularities. Sometimes traditional rules should be changed to cope with the latest cultures.
- American author G. Michael Hopf said: "Hard times create strong men, strong men create good times, good times create weak men, and weak men create hard times."
- Nobel laureate (2024) Daron Amemoglu has proved that the main cause of development behind the scenes is effective and stable institutions.

14. Conclusion

The effectiveness of training and development depends mainly on how a program is designed. A student has dreams when he is graduated, his dreams become bigger. He needs an appropriate job. His enthusiasm becomes limitless. A training program successfully imparts new knowledge and skills to employees, enabling them to perform their jobs better, leading to improved productivity, performance, and ultimately, achieving organizational goals; it is measured by assessing the impact on employee knowledge, skills, and behavior change after completing the training, as well as considering the return on investment for the organization.

The "effectiveness of a training program" refers to how well a training program achieves its intended goals, measured by the improvement in participants' knowledge, skills, and performance on the job, ultimately contributing to positive business outcomes and demonstrating a return on investment (ROI) for the organization; it essentially assesses whether the training successfully transferred learned skills into real-world applications.

When information and ideas flow both ways, the chances of making a breakthrough will be higher than if information and decisions are taken in one direction. But the key decisions should be taken by the leaders, political/public service, which they are accountable for. Working manuals should be updated to disseminate new information across the department (Ho, 2007).

Every civil servant is a leader and a role model, whether to their teams, their colleagues or the customers they serve. By improving the way, we lead and manage change we can improve many aspects of our work, reducing bureaucracy, making efficiencies and becoming more responsive in delivering public service. Every employee should be made enthusiastic about responsibility and outcomes.

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PROSHIKHYAN: Journal of BSTD

GUIDELINES FOR CONTRIBUTORS

1. Article should be in English and original. BSTD may use 'Turnitin' software for plagiarism check. It should not be under consideration of any other publication at the same time.

2. Article should be submitted through e-mail (bstddhaka@gmail.com) in double space with sufficient margin.

3. A half page "**Abstract**" containing the objective, methodology, major findings, conclusion, and recommendations, where applicable, are to be added at the top of the article.

4. Article should be on the areas relating to training and development and preferably between 3,500 and 5,000 words.

5. Provide 3 to 5 keywords at the end of abstract. Please try to avoid keywords consisting of multiple words (using "and" or "of"). Do not use any abbreviations in key words unless these are firmly established in the field.

6. Divide your article into clearly defined and numbered sections with headings. Number subsections 1.1 (then 1.1.1, 1.1.2, ...), then 1.2, etc. Give subsections a brief heading. Headings should appear on a separate line.

7. PROSHIKHYAN follows the **Harvard Referencing Style**. Some of the examples are given below:

   - Where simple references are made these should be inserted at the appropriate place in the text in parentheses, giving author's surname, date of publication of the work under reference and the relevant page numbers. [Example: (Rahman, 1993:41-9)].

   - In-Text Citations, (a) In case of **Author-Year**, place the author's last name and the year of publication in parentheses after the quote or paraphrase [Example: "According to Smith (2023), climate change is a major global challenge."]; (b) In **Direct Quote**, include the page number in parentheses after the quote [Example: As Johnson (2022, p. 45) states, "The effects of climate change are becoming increasingly severe."]; (c) If **Multiple Authors**, list all authors' last names separated by "and" for the first citation. Use "et al." for subsequent citations if there are more than three authors. [Example: "Climate change is a complex issue (Smith, Johnson, & Williams, 2021)."]

   - Where references are made with notes/comments, the same should appear as **Notes**, indicated sequentially throughout the article by superscripting in raised Arabic numbers and the corresponding **Notes** should appear at the end of the article.

   - To use **Footnotes**, Numbering: Begin with a superscript number (e.g., [1], [2], [3]....) where you want to insert the footnote. [Example: Text - The research by Smith[1] suggests a correlation between... Footnote: [1] Smith, John. "Title of Article." Journal of Research, Vol. 10, No. 2, 2023, pp. 50-65.

   - **A reference list** arranged alphabetically should appear after the list of **Notes** (if any). The style should be as follows: author's surname and other names/initials, year of publication (in parentheses), title of publication, place of publication and the publisher [Example: **(a) Book:** [Sing, Inderjit (1990) *The Great Ascent: The Rural Poor in the South Asia,* Baltimore: John's Hopkins University Press.]; **(b) Anthology:** [RDRS (1991) 'Northern Bangladesh: An Integrated Social Literacy program', in V. McGivney and F. Murray (Ed.) *Adult Education in Development: Methods and Approaches from Changing Societies,* Leicester: National Institute of Adult Continuing Education, pp. 45-47.]; **(c) Journal:** [Khan, Adil (1993) 'Managing Project Sustainability', *Asia-Pacific Journal of Rural Development*, Vol. III, No. 1, July 1993, pp.71-74.]; **(d) Website:** [**With author:** World Health Organization (2023). *Coronavirus disease (COVID-19).* https://www.who.int/about.] **Without author:** [*Climate Change 2021: The Physical Science Basis* (2021). https://www.ipcc.ch/report/ar6/wg1/].

8. Numbers from zero to nine should be spelled out. Numerical should be used for all other numbers.

9. The name(s) of the author(s) and his/her/their professional background and institutional affiliation together with mobile contact number and e-mail address of the first/single author should be clearly mentioned in the first page of the article. Article should be sent electronically to BSTD using its e-mail address: bstddhaka@gmail.com mentioning attention to Editor, BSTD Journal.

BANGLADESH SOCIETY FOR TRAINING AND DEVELOPMENT (BSTD)

Introduction

The Bangladesh Society for Training and Development (BSTD) is the apex professional organization for the trainers of Bangladesh. Established in 1980, its "General Members" comprise trainers from both public and private sectors. People interested in training and human development may register themselves as, "Associate Members". It is a non-profit democratic body whose structure, objectives and development activities are defined by a unanimously adopted constitution. It is incorporated as legal entity under the Societies Act XXI of 1860. The society is a member of International Federation of Training and Development Organizations (IFTDO) and Association of Management Development Institutions in South Asia (AMDISA).

Objectives

The general objective of the society is to promote human resource development among its members as well as other concerned professionals through conducting training and other professional activities. The specific objectives of BSTD as articulated in its constitution are:

- To develop the professional skill of its members in training, and take necessary steps for the development of training institutions;
- To provide training, conduct research, undertake publications, coordinate among training institutes for bringing them closure and exchange experiences through training materials and information;
- To help develop professional pride of training profession and trainers and protect the latter's professional interest;
- To facilitate exchange of views, promote fraternity and professionalism among the trainers, researchers and development managers within Bangladesh and abroad;
- To create awareness about the role of training in solving local, national and regional problems;
- To plan and organize seminars, workshops and conferences primarily for developing the skill of trainers;
- To provide advisory and consultancy services in the field of training and management, in order to develop, implement, monitor, evaluate the policies, strategies and activities of the government and NGOs;
- To give award and/or accord recognition for contribution in the field of training and offer fellowships for encouraging training-related activities; and
- To undertake welfare activities among its members.

Management

The professional and administrative responsibilities of BSTD are performed by two bodies: General Assembly and Executive Committee. The General Assembly is the supreme policy making body and consists of institutional members, individual general and life members. The operational activities are accomplished by a 23-member Executive Committee which is duly elected by the General Assembly. The professional functions of the Executive Committee are also facilitated by five sub-committees. A full time Executive Officer is the head of the administrative team managing the office of the society which is located in society's own premises at Centre Point Concord, 14A & 31A, Farmgate, Dhaka-1215. The contact information of the society is as follows: Phone: 88-02 41024413, 01817072603; E-mail: bstddhaka@gmail.com

Focus and Activities

The main focus of BSTD is on human resource development. This is achieved through various professional activities, such as:

- Designing and conducting innovative and model training programs
- Publication of the professional Journal "PROSHIKHYAN" (Training)
- Conducting research, consultancy and evaluation work
- Organizing workshops, seminars and conferences on training and human development
- Observing National Training Day on 23rd January every year
- Recognizing the best trainers through annual professional award
- Maintaining liaison with international training and development organizations
- Informing the trainers about latest developments in the training sector in home and abroad through its quarterly News Letter "Proshikhyan Barta".

In addition, BSTD communicates with the various ministries, departments, and agencies of the government and with NGOs and international organizations in order to innovate training fields, training methods, conduct and promote the cause of training and trainers in Bangladesh.