Abstract

This study investigates the challenges and opportunities surrounding warehouse operations in Bangladesh, encompassing both the manufacturing and service sectors. This paper demonstrates above mentioned scenario in the context of supply chain management (SCM). Despite enduring a series of disruptions, including the pandemic and geopolitical tensions, notably the situation between Ukraine and Russia, the Bangladeshi economy has displayed remarkable resilience. In the fiscal year 2019-20, there was a significant decline in GDP growth, dropping from 7.88 percent in the pre-pandemic year to 3.45 percent. However, there was a notable resurgence in GDP growth, surging to 6.94 percent in FY 2020-21 and further rising to 7.10 percent in FY 2021-22. Unfortunately, the economic growth for FY 2022-23 has been impeded by the Russia-Ukraine crisis.

The Gross Domestic Product (GDP) of an economy is a composite of contributions from three key sectors: agriculture, industry, and services. As the economic landscape evolves, the significance of the agriculture sector diminishes, while the industrial sector gains prominence. This research is developed based on primary and secondary data sources, encompassing online databases, journals, review papers, and more. The primary data collection includes a comprehensive survey questionnaire completed by 207 respondents from 24 industrial sectors in Bangladesh. The study addresses multiple challenges faced by warehouse operations and offers recommendations for best practices and a strategic way forward in the global arena for Bangladesh, where priorities such as achieving net-zero emissions, sustainability, and the adoption of lean warehouse operations are paramount.

Furthermore, the study provides a novel approach by recommending implementation of the Integrated Supply Chain Performance Measurement (ISCPM) model, along with its ten attributes, as an integral component of adopting global best practices for practitioners and researchers, which would contribute and unlock further research opportunities to develop this sector.
Keywords: Warehouse Operations, Manufacturing, Service, Performance Measurement, Sustainability, and Net Zero.

1. Introduction

Bangladesh has confronted a series of disruptions, encompassing the pandemic COVID-19, geopolitical instability, devaluation of the currency, a crisis involving the US dollar, and tensions between Ukraine and Russia. These factors have collectively resulted in significant upheavals and amplification of the bullwhip effects within supply chain management (SCM). Additionally, the presence of natural disasters like floods, cyclones, and earthquakes has added another layer of complexity to logistics operations. It's important to highlight that the challenges and operational attributes of warehouses vary significantly depending on whether they serve the manufacturing or service industry. [36]

Irrespective of all these, the Bangladeshi economy has demonstrated a resilient recovery from the impacts of the global COVID-19 pandemic.

During the fiscal year 2019-20, there was a significant drop in GDP growth, plummeting from 7.88 percent in the pre-pandemic year to 3.45 percent. However, there was a remarkable resurgence in GDP growth, reaching 6.94 percent in FY 2020-21 and 7.10 percent in FY 2021-22. Unfortunately, the economic growth for FY 2022-23 has been hindered due to the Russia-Ukraine crisis. [35]

The Gross Domestic Product (GDP) of an economy is the summation of contributions from three key sectors: agriculture, industry, and services. As the economic structure evolves, the dominance of the agriculture sector diminishes in significance, while the industrial sector gains prominence. Additionally, the service sector emerges as a substantial contributor to GDP and plays a significant role in generating employment opportunities in Bangladesh. The service sector, often referred to as the tertiary sector, encompasses various areas, including retail, education, healthcare, real estate, banking, hospitality, social services, computer-related services, gas and electricity utilities, water supply, media, communication, and recreational activities. [21,22,37,61,62]

When discussing contemporary warehouse management and its optimal strategies, Bangladesh lags behind its neighboring regions [39]. This discrepancy arises from historical neglect, particularly in the context of qualified professionals and educational programs specialized in supply chain management (SCM) and warehouse management.

Until just a few years ago, the sector was predominantly staffed by individuals lacking formal SCM education or certification in warehouse management.

Consequently, the management style adhered to a traditional, sales-centric structure, with sales and distribution reporting directly to the Head of Sales & Marketing. [26,38]

However, in the past decade, there has been a remarkable transformation. Companies are shifting away from their conventional
approaches towards embracing modern SCM best practices. This transformation is primarily attributed to a newfound awareness among top-level management about the critical role played by SCM and warehouse management, both of which are increasingly entrusted to skilled professionals. [40]

The primary objective of this paper is to carry out a comprehensive review of the literature within the realm of warehouse operations and optimal strategies, with a particular focus on the context of Bangladesh. This review aims to pinpoint deficiencies in the current body of knowledge and provide strategic and tactical guidance for better preparation in managing disruptions and improving operational efficiency as part of warehouse operations best practices. Additionally, it intends to tackle emerging concerns such as sustainability and the pursuit of a net-zero impact. As one of its strategic objectives, this research will recommend the adoption of the Integrated Supply Chain Performance Measurement (ISCPM) model. This recommendation is crafted to function as a method for implementing cutting-edge warehouse performance measurement methods and the best operational practices available which unlocks further research to develop this sector. [27]

2. Literature Review

Warehouse operation encompasses the organized planning, coordination, and oversight of activities related to the storage, transportation, and monitoring of goods within a warehouse or distribution center (DC) [28]. Its effectiveness and efficiency heavily rely on the efficient handling of inventory levels, the reduction of handling expenses, and the maximization of space utilization, all while guaranteeing the on-time delivery of products to customers. In Figure 1, the essential operations within a warehouse typically include receiving, inspecting, arranging, inventory management, order picking, packaging, and shipping. [1,20,41]

![Figure: 1 Warehouse Management System](image)

2.1 Warehouse Operations in the Manufacturing Sector

Warehouse operations play a crucial role in Bangladesh's manufacturing sector, acting as a pivotal element in facilitating the efficient and timely movement of raw materials, components, and finished goods throughout the supply chain management (SCM). Within the manufacturing domain, the primary focus of warehouse operations revolves around effective inventory management, maximizing space utilization,
and improving overall operational efficiency.

There is substantial empirical evidence supporting the idea that the manufacturing sector holds significant importance in the socio-economic development of countries, particularly those with lower income levels. Manufacturing has the potential to deliver higher productivity levels, faster productivity growth, and greater technological advancements compared to agriculture and many service sectors, especially in regions with income levels below a certain threshold [1,42]. Additionally, the manufacturing sector has a substantial impact on global trade. In this context, we intend to assess the performance of Bangladesh's manufacturing sector in comparison to key manufacturing economies in South and Southeast Asia, such as India, Indonesia, Malaysia, Thailand, Vietnam, and China. [2,29]

As of 2019, the proportion of manufacturing employment relative to the total employment in Bangladesh was 14.8%. This figure exceeded that of India (12.1%) and Indonesia (14.4%), although it fell short of Vietnam (18.4%), Malaysia (16.8%), Thailand (16.3%), and China (19.5%).

The government has set ambitious targets to raise manufacturing employment to 22% by 2025 and further increase it to 25% by 2030. [30,43]

There are primarily twenty-four manufacturing sectors in Bangladesh that require warehouse operations. These sectors encompass a wide range of industries, including Animal Feed Mills, Automatic Rice Mills, Automobiles, Cables, Cement Mills, Ceramics, Cosmetics and toiletries, Flour Mills, Food and beverage, Footwear, Garment Accessory factories, Household Electronics, Jute, Oil Refinery, Paints, Paper, Pharmaceuticals, Plastic Products, Readymade Garments, Salt, Steel, Sugar, Textiles, and Tobacco. [54,55]

Blue-chip companies from different manufacturing sectors in Bangladesh such as Coca-Cola, Transcom Beverage, Aij Food & Beverage, ACI consumer brands, Square Food & Beverage, PRAN, Unilever, City Group, Meghna Group, Square Pharmaceuticals, Beximco Pharmaceuticals, Incepta Pharmaceuticals, Novartis, GSK, Berger, RAK, BSRM, KSRM, British American Tobacco, Japan Tobacco, Bashundhara Group, and Kazi Farms, etc. require sector-specific warehouse operations tailored to the specific characteristics of their businesses, product types, cold chain requirements, product value, sensitivity, longevity of the products, and as per the compliance with regulatory standards in Bangladesh, along with global certified bodies such as Bangladesh Standard Testing Institute (BSTI), Drugs Administration, Ministry of Environment (MoE), cGMP, Current Good Manufacturing Practice regulations enforced by the FDA, Food and Drug Administration (FDA, USA), HAACCP, and ISO 9000 standards and many more etc. [31,44]

2.2 Warehouse Operations in the Service Sector

Warehouse operations constitute a vital component of the service industry,
especially for enterprises engaged in inventory management and logistics. Within the service sector, the core focus of warehouse operations revolves around storing, moving, and distributing goods and materials essential to support service delivery. [32,45]

The growth of the sector is estimated to be 8.18 percent in the current fiscal year. However, provisional data suggests that in FY 2022-23, the growth rate within the broader service sector has decreased to 5.84 percent compared to the 6.26 percent recorded in FY 2021-22. Over the past five years, Bangladesh's services sector has expanded by nearly 90 percent, reaching a total of Tk 18.98 trillion, as confirmed by the latest official figures. [61]

The size of the services sector, encompassing education, finance, accommodation, transportation, wholesale, and retail trade, accounted for Tk 18.98 trillion, representing nearly 54 percent of the Tk 34.84 trillion nominal GDP in the fiscal year 2020-21. In contrast, this figure was only Tk 10.06 trillion in the fiscal year 2015-16, according to data from the Bangladesh Bureau of Statistics (BBS). In Bangladesh, a wide range of sectors including telecommunications, financial institutions, mobile financial services, insurance companies, software firms, healthcare services, medicine shops, hotels and resorts, wholesale, retail chains & hypermarkets, online delivery platforms, courier service companies, real estate firms, educational institutions, rental services, motor workshops and garages, government service agencies, defense, public administration, social work, and community services primarily demand extensive warehouse operations. [33,61]

Retailers rely on efficient warehouse operations to manage their product inventory and ensure timely deliveries to their stores, crucial for meeting customer demand and preventing stockouts. Online retailers heavily depend on warehouse operations to receive, store, and ship products to customers. Warehouse operations also play a crucial role in managing returns and exchanges. [34,46]

Specialized warehouse operations are also essential for service sectors such as grocery retail chains at Agora, Meena Bazar, Shwapno, and Unimart; footwear retail chains at Bata, Apex, Bay, and Lotto; for household electronics companies at Singer, Walton, LG Butterfly, Sony Rangs, Trancom, Samsung FDL, Jamuna Electronics; for hospitals at Square hospital, United hospital, Evercare hospital; and the hotels and resorts at Hotel Intercontinental, Pan Pacific, Westin, Radisson Blue etc. These operations are tailored to their specific business nature, product categories, customer requirements, and geographic locations, ensuring efficient management of their unique needs. [47,48]

2.3 Warehouse Structure and Design

To achieve operational efficiency in warehouse operations, it is imperative to focus on conceptual design and facility layout planning. Facility layout planning involves addressing functional aspects, including the storage capacities in specific departments and the technological infrastructure necessary to
provide an optimal service for order placement and execution. At this stage, one of the primary concerns is meeting throughput requirements to support storage facilities and future operational costs. Additionally, size and dimension considerations encompass aspects such as warehouse construction expenses, inventory management policies, automated replenishment processes, and overall material handling procedures. [2,49]

To elaborate, the process requires formulating ideas regarding the storage capacity of a warehouse under two distinct circumstances. Firstly, this involves determining inventory levels externally, especially when the warehouse lacks direct control over inbound shipments. Secondly, it entails considering situations where a warehouse can directly influence the inventory policy. The overarching objective of this planning and process is to ensure optimal system performance by allocating the appropriate space and achieving the highest level of efficiency.

3 Challenges of Warehouse Operations in Bangladesh

Currently, in the realm of warehouse management operations, Bangladesh confronts numerous hurdles such as infrastructure deficiencies, the availability, and proficiency of labor, regulatory complexities, safety and security concerns, reliability of power and water supply, unpredictable weather conditions, space limitations, real estate expenses, the backbone of information technology, software solutions, and contemporary material handling equipment, among other factors. [50,62]

3.1 Warehouse Management Professionals

The shortage of warehouse management professionals poses a significant challenge in Bangladesh. Over the past four decades since our country gained independence, there have been limited formal academic opportunities for professionals to pursue higher education and acquire expertise in warehouse operations management. Instead, professionals have traditionally gained knowledge and skills through on-the-job training, particularly in multinational companies (MNCs) operating in Bangladesh.

Prominent MNCs such as Unilever, British American Tobacco, Nestle, DHL, and others have consistently adhered to global best practices in their warehouse operations. They have developed and implemented their own Standard Operating Procedures (SOPs) based on international standards and best practices.

Employees in these organizations have typically acquired their knowledge through internal training programs, workshops, and regional visits within the same intercompany network. These opportunities served as the primary means for individuals to learn about warehouse operations in Bangladesh. However, during this period, it's worth noting that there was a lack of significant interest from top or above-average talents to pursue careers in Warehouse and Distribution roles, especially when compared to roles in Sales,
Marketing, or Finance. This disparity can be attributed to the physically demanding and long-hour nature of warehouse jobs, which are often perceived as less glamorous and less conducive to corporate office settings. Consequently, the warehouse and distribution sector has historically faced neglect and a shortage of highly skilled professionals.

As a result, addressing the shortage of warehouse management professionals in Bangladesh requires a renewed focus on education and training opportunities in this field, as well as efforts to change perceptions about the value and potential for growth in warehouse and distribution careers.

3.2 Policy, Framework, and Warehouse Operations Best Practice

Currently, there is no professional body, whether government-affiliated or private sector-driven, in Bangladesh that comprehensively addresses the establishment of standard best practices for warehouse operations, and benchmarks, in alignment with global standards and compliance. This represents a significant gap in the industry, which has unfortunately been overlooked and neglected. At present, there is a lack of a national policy, framework, and standardized operating procedures for this crucial sector. [61,62]

Supply Chain Management (SCM) has only recently started less than a decade to gain ground in Bangladesh, and the transformation is still in its nascent stages. While the concept of end-to-end SCM operations is generating excitement, it is primarily being practiced by a few top multinational companies that truly implement genuine supply chain management principles. Many local companies, except a few, continue to follow traditional practices with minimal process improvements. [61]

Presently, there exists no professional body in Bangladesh that caters to individuals who hold degrees or diplomas in Supply Chain Management (SCM) and offers oversight of the quality and standards comparable to institutions like The Institute of Chartered Accountants of Bangladesh (ICAB) or the Institute of Cost and Management Accountants of Bangladesh (ICMAB). [24,25]. Bangladesh Supply Chain Management Society (BSCMS), an association for supply chain management professionals, is still in its early stages of development - It requires more time, concerted effort, and robust networking to establish itself as a dominant authority, compared to Bangladesh Brand Forum, or other associations.

Nevertheless, BSCMS has made commendable efforts, such as launching the IPDC BSCMS Supply Chain Excellence Awards, which is a notable initiative to bring professionals together on a national platform. They also engaged in several rounds of dialogues with the Bangladesh Investment Development Authority (BIDA) to discuss long-term logistics framework policies. Additionally, it has organized conferences aimed at addressing challenges in logistics and preparing for the future of the industry.
3.3 Warehouse Infrastructure and Material Handling

A significant portion of warehouse operations in Bangladesh takes place within leased properties. Many of these buildings were not originally designed for warehousing purposes. Instead, they were initially intended for uses such as factories and were later repurposed as warehouses. Consequently, a majority of these warehouses lack essential infrastructure and features, such as well-planned inbound and outbound operations, ramps, bays, adequate space for vehicle parking and maneuvering, proper lighting, material handling equipment, ventilation, and loading/unloading facilities. Adequate road connectivity to these warehouses is also crucial for accommodating the arrival and departure of long-haul trucks and the loading/unloading of containers, both of which require ample space.

In many instances, it is observed that these warehouses suffer from space constraints. While most leased warehouses don’t have compliant flooring, appropriate floor heights, and racking systems to maximize vertical storage, they often rely on excessive manual labor for loading and unloading tasks. This practice surpasses established norms and ethical standards because labor is readily available and there are no government-imposed restrictions to prevent it.

3.4 Real Estate Price in Bangladesh

Real estate prices in Bangladesh have experienced a substantial increase, particularly when compared to key manufacturing economies in South and Southeast Asia, including India, Indonesia, Malaysia, Thailand, Vietnam, and China. This surge in real estate prices is particularly evident in major cities such as Dhaka, Chittagong, Comilla, and Sylhet. Within the Dhaka region, areas like Tejgaon, Savar, Tongi, Narayanganj, Jatrabari, and others have witnessed a remarkable escalation in property values. These areas are in high demand due to the necessity for multiple distribution centers (DCs) to facilitate efficient product delivery within Dhaka and its surrounding areas. However, the soaring property prices in these areas pose significant challenges in terms of cost calculations and feasibility for potential investments. It often becomes exceedingly difficult to justify or make an investment economically viable under such circumstances. Consequently, compromises are frequently made in warehouse operations, resulting in reduced space allocation for essential aspects such as ample parking bays, maneuvering areas, and loading/unloading facilities.

3.5 Disruption in Power and Water

Power and water supply disruptions play a significant role in causing interruptions to warehouse operations, leading to delays and financial losses. In numerous regions across Bangladesh, especially outside of Dhaka, power outages are a prevalent issue that hinders delivery and distribution processes. Addressing this challenge necessitates the installation of backup generators, thereby increasing the overall operational costs of warehouses. [58]

For industries like food and beverage and healthcare, where stringent cold chain
operations are vital, maintaining a consistent and uninterrupted power supply is imperative. Failing to ensure a reliable cold chain and experiencing temperature fluctuations can result in the degradation of product quality. This risk applies to a range of products, including vaccines, medicines stored in vials, dairy items, and beverages. [57]

3.6 Warehouse Automation and IT Infrastructure

While technology and automation offer the potential to optimize warehouse operations, they introduce a unique set of challenges. These challenges encompass the selection and implementation of suitable technology, the need for effective staff training, and the ongoing tasks of maintaining and upgrading the technology. In Bangladesh, the majority of warehouse operations, except for a few exemplary operators, still function without the use of Warehouse Management Systems (WMS). Consequently, manual processes are employed for tasks such as goods receipt and delivery. Additionally, warehouse shelving strategies like Fast in Fast Out (FIFO) or Fast Expiry in Fast Out (FEFO) are managed through manual methods, resulting in complex and traditional workflows. Access to robust platforms like SAP and Oracle is essential for efficient warehouse management. However, due to the significant capital investment required, many mid-sized and small companies find it challenging to adopt these best practices. [56,62]

4 Research Methodology

This study is based on secondary data and primary data. Primary data consists of a full survey questionnaire with 207 respondents from 24 manufacturing sectors of Bangladesh. The researcher utilized self-administered questionnaires through an email survey questionnaire [11]. A total of 1,832 emails were sent to the supply chain stakeholders particularly SCM professionals, employers, employees, etc. Apart from these, the study also explored secondary data from Scopus and Web of Science (WoS) indexed journals, books, and conference proceedings. [10]

5 Way Forward and Prospects of Warehouse Operations

The future of warehouse operations is expected to undergo significant transformations driven by technological advancements, changing consumer expectations, sustainability concerns, and global supply chain dynamics. To overcome these obstacles, warehouse operators in Bangladesh should make strategic investments in infrastructure development, provide comprehensive training to their workforce, establish robust safety and security protocols, and cultivate constructive relationships with regulatory authorities. Furthermore, embracing advanced technologies like Warehouse Management Systems (WMS) software and state-of-the-art material handling equipment, etc., and many more are to be implemented in warehouse operations management as follows:
5.1 Best-in-Class Warehouse Operations

Best-in-class warehouse operations are those that establish the benchmark for excellence in warehouse management and operations. These operations excel in delivering exceptional service to customers while concurrently achieving high levels of efficiency and productivity. Best-in-class warehouse operations employ a meticulous planning process that encompasses demand forecasting, capacity planning, and inventory optimization such as Effective Layout, Efficient Material Handling, Advanced Technology, Skilled Workforce, Effective Inventory Management, Continuous Improvement, Customer Service, Safety and Security, Robotics and Automation, Big Data Analytics, Omnichannel Fulfillment, and application of Block Chain, etc. [8,9,19,59]

5.2 Warehouse Operations Performance Measurement

To ensure warehouse operation best practices, it is highly important to measure the warehouse performance. Significant research has been carried out on supply chain performance evaluation (SCPM), yet a lot of corporations were unsuccessful in implementing effective performance measurement methods in their operations. Supply chain attributes and performance measurement index are not established, connecting with the bottom-line impacts of an organization. Therefore, companies could not adopt any integrated SCM performance measurement model to measure performance. [14,15,58]

The future of warehouse operations is expected to undergo significant transformations driven by technological advancements, changing consumer expectations, sustainability concerns, and global supply chain dynamics. Therefore, the application and implementation of the Integrated Supply Chain Performance Measurement (ISCPM) model is inevitable to measure the overall performance of the warehouse management operations. [5,6]

Figure 2: Integrated Supply Chain Performance Measurement Model (ISCPM) [39]

Numerous tools and methodologies are available for assessing supply chain performance. However, each model has its strengths and weaknesses, and the literature on supply chain performance measurement (SCPM) contains a substantial body of articles and models [12,16]. The ISCPM model, depicted in Figure 2, delineates supplier relationship management (SRM), international supply chain management (ISCM), and customer relationship management (CRM). [56]

This ISCPM model encompasses ten supply chain performance measurement attributes for the manufacturing sector, including Financial Health (FH), Collaboration (CL), Velocity (VC), Resilience (RE), Reliability (RL),
Continuous Improvement (CI), Visibility (VS), Work People Health (WPH), Sustainability (SS), and Service Excellence (SE). [7,11]

At present, most organizations commonly employ either the Balanced Scorecard (BSC) model or the Supply Chain Operations Reference (SCOR) model to assess their supply chain performance. However, given the current market dynamics, companies must consider adopting the ISCPM model. [3,4,6]

5.3 Sustainability in Warehouse Operations

Sustainability in warehouse operations refers to the implementation of practices that minimize the environmental impact of warehouse operations while maximizing efficiency and profitability. Here are some ways that warehouses can integrate sustainability into their operations: Energy efficiency, Water conservation, Waste reduction, Last Mile Delivery, Material handling, and Green building. By implementing sustainable practices, warehouses can reduce their environmental impact, lower costs, and improve efficiency. Additionally, they can meet customer and regulatory demands for environmentally responsible operations. [4,17,23,55]

Amongst the concept of sustainability, three major areas cover – sustainability to nature, sustainability to community, and application of a green supply chain. Sustainability to Nature addresses - activities on environmental impact on Clean Energy and conversion, activities on Biodiversity, activities on Waste Management, Environmental Compliance Policy aligning with UN Sustainable Development Goal. Sustainability to Community addresses Corporate Social Responsibility (CSR) aligning with the UN Sustainable Development Goal, and application of Green Supply Chain Management. [52, 54]

With the concept of Sustainability to Nature, Net zero in warehouse operations refers to achieving a balance between the greenhouse gas emissions produced by the warehouse and the greenhouse gas emissions it offsets or reduces. The goal of net zero warehouse operations is to achieve zero carbon emissions or to be carbon neutral. Here are some key components of net zero warehouse operations: Energy efficiency, Green building design, Sustainable transportation, Carbon offsetting, Waste reduction Supplier sustainability. By achieving net zero in warehouse operations, warehouses can reduce their environmental impact, meet customer and regulatory demands for environmentally responsible operations, and improve their reputation and competitive advantage. [18,51]

6. Conclusion

In summary, this research paper's primary objective was to conduct a comprehensive literature review on warehouse operations within the context of Bangladesh. The study highlighted the significant challenges that Bangladesh has grappled with over recent decades. Furthermore, this study elaborated and effectively-identified best practices in warehouse operations, providing a detailed roadmap for the
holistic improvement of operational capabilities or the strategic allocation of capital investments required to achieve warehouse operations best practices. As a practical solution, the study strongly advocates for the adoption of the Integrated Supply Chain Performance Measurement (ISCPM) model, which serves as a valuable tool. This model delineates ten critical supply chain performance measurement attributes for assessing warehouse operations performance within an organization. These attributes encompass Financial Health (FH), Collaboration (CL), Velocity (VC), Resilience (RE), Reliability (RL), Continuous Improvement (CI), Visibility (VS), Work People Health (WPH), Sustainability (SS), and Service Excellence (SE). These attributes serve as a comprehensive diagnostic tool for evaluating overall operational performance while placing a strong emphasis on sustainability and the pursuit of achieving a net-zero environmental impact. This recommendation is carefully designed to serve as a means to implement state-of-the-art warehouse performance measurement techniques and operational best practices, thereby paving the way for further research and development within this sector. Moreover, the research introduces an innovative strategy by suggesting the adoption of the Integrated Supply Chain Performance Measurement (ISCPM) model, along with its ten attributes. This recommendation is envisioned to contribute as a novel approach as well as a crucial element in embracing international best practices for both practitioners and researchers, ultimately fostering opportunities for additional research and advancements within this industry and academia.

References


