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Organizational sustainability: Issues, challenges and the future of Bangladesh pharmaceutical industry

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A B S T R A C T

This study aims to contribute to the literature on organizational sustainability and explore the issues, challenges, and prospects of the Bangladesh pharmaceutical industry in terms of sustainability. Organizations around the world are becoming more and more concerned about their ability to reduce or prevent the adverse effects of their actions. Sustainability, socially responsible human resource management (SRHRM), green human resource management (GHRM), characteristics of stakeholders, voluntary green behavior, innovative behavior, and government roles are the main areas of concern. Research and existing literature are explored to have a clear grasp of several organizational sustainability components. This study also shows how organizations understand and implement organizational sustainability concerns and difficulties and how to identify whether essential systemic components are still unaddressed. It's difficult to balance social, economic, and environmental responsibility with sustainability. Enhance SRHRM and GHRM by examining stakeholder characteristics and the government's involvement, combined with voluntary green and creative behavior, to create a positive image for society, the economy, and the environment. This research explores the issues, challenges, and prospects of Bangladesh's pharmaceutical industry's organizational sustainability. In contrast to the age of industry 4.0, artificial intelligence and machine learning concerns about human resource management, stakeholder characteristics, government role, and employee behavior contribute to the organizational sustainability of the pharmaceutical sector. The study presents first insights on the issues, challenges, and prospects of Bangladesh's pharmaceutical industry from the perspective of organizational sustainability. Sustainability, employee green and innovative behavior, SRHRM, GHRM, stakeholder characteristics, and government roles are drawing the attention of organizations globally. They are taking more and more responsibility for how their actions affect the environment, society, and the economy.

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1. Introduction

Businesses in entire manufacturing sectors are increasingly aware of their financial, ecological, and societal responsibilities, as well as the importance of achieving augmented value and international success, in addition to the conventional monetary or profitable aspect, which is not only demonstrating economic objectives, but also considering ecological, security, and social dimensions. The industrial sector, especially the pharmaceutical business, depends mainly on resource-oriented production or operations. This sector consumes a lot of energy, water, and solvents, which are crucial to our ecosystem and society, so it can play a big role in sustainability. The 2030 Agenda for Sustainable Development of the United Nations (UN, 2015) states that 17 development goals should be attained to benefit people, the environment, and organizations as a whole, which comprises all present and future generations. These growing objectives also highlight the importance of promoting worldwide exposure to well-being and ensuring people's health. When comparing operational profits to emissions, pharmaceutical manufacturers around the world are more emission-oriented than automotive manufacturers (Belkhir &

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Elmeligi, 2019; Weisza et al., 2020). This makes CO2 and GHG levels rise, which could lead to catastrophic global warming and social, economic, and environmental collapse (Chandler et al., 2002; Otto et al., 2018; Kalra and Kumar, 2019). This industry is largely responsible for environmental harm through GHG emissions and severe discharges (Belkhir and Elmeligi, 2019). This sector contributes 12% of acid rain, 10% of GHG emissions, 10% of smog formation, 9% of air pollutants, 1% to stratospheric ozone depletion, and 1% to 2% of carcinogenic and non-carcinogenic air toxins, according to Eckelman and Sherman (2016). The World Health Organization (2019) identifies climatic environmental changes as "the greatest hazard to global health in the 21st century." As a result of human-caused climate change, global health systems are already confronted with formidable obstacles affecting the health concerns of millions of people around the world (Watts et al., 2019). It has a significant impact on our quality of life by decreasing our air quality, water quality, and dietary habits. The annual decrease in global output due to air pollution is already estimated at over $5 trillion (World Bank and IHME, 2016), while Bangladesh remains at the top of the world's most polluted countries list (WAQR, 2019). This climatic vulnerability is largely responsible for the food and drink insecurity of the world's people. So, future generations will have to deal with catastrophic climate risks, less nutritious crops, a lot of fossil fuel burning that has made air pollution worse, rising average temperatures in the atmosphere, and more problems with our ability to live (Watts et al., 2019).

In spite of this, Bangladesh is ranked as the sixth most vulnerable nation on the planet to the effects of climate change (Kreft et al., 2016). From 1997 to 2016, the country had a total of 187 of the most catastrophic weather events, costing an average of $2.3 billion each year in damage, or about 0.7% of GDP (Eckstein et al., 2018; Hasan et al., 2019). From the perspective of the sustainable development agenda 2030 (UN, 2015), a significant increase in resource efficiency in consumption and the implementation of strategies to combat climate change will be achieved by 2030. As a result, pharmaceutical companies' current operations have big effects on the environment, especially in the areas of resource deployment and consumption as well as waste production (Ott et al., 2014; Chaturvedi et al., 2017), in an effort to reach the 2030 agenda for sustainable development (United Nations, 201). As a result of environmental degradation by manufacturing organizations, including the pharmaceutical industry, there are a number of external effects, such as rising global temperatures, melting polar ice caps, and rising sea levels, altering seasonal patterns, observing a large number of natural disasters with water crises and ecological changes, and health risks, such as a rise in the number of diseases (Chandler et al., 2002; Otto et al., 2018; Kalra and Kumar 2019). In addition, a violation of business regulations becomes a significant problem when the violations cause severe damage in a variety of ways, including excessive exploitation of natural resources such as oil, water, land, and forests; the use of toxic materials in products; the practice of forcing employees to work overtime for less pay; and the abusive use of insurance policies, which damages the company's corporate image (Global Exchange, 2018). These violations have effects that are not only harmful to the environment but also harmful to people and the economy as a whole. Consequently, organizations face emerging trends and challenges regarding their sustainability (Akhtar et al., 2017) that extend beyond the growth of nations. The pharmaceutical industry has reduced waste generation (USEPA, 2018) and optimized their manufacturing by reducing the deployment of new resources so that it results in the lowest amount of trash, radiation, and pollution (Kane et al., 2018; Jaseem et al., 2017; Pratyusha et al., 2012) as a result of their negative environmental effects.

2. Literature Review

Issues Concerning Organizational Sustainability in Bangladesh's Pharmaceutical Industry

Since organizational sustainability is an essential area of interest for the pharmaceutical manufacturing industry (EFPIA, 2016; Ang et al., 2020), for their environmental, social, as well as economic perspectives of prominence for achieving better value and worldwide victory in the pharmaceutical manufacturing industry (Marques et al., 2019). A review of the relevant literature reveals that there are a number of factors or issues that influence the organizational sustainability of pharmaceuticals with their advanced technology. This would include: 1) socially responsible human resource management; 2) green human resource management; 3) characteristics of stakeholders; 4) the role of the government; 5) voluntary green behavior; and 6) innovative behavior.

2.1 Socially Responsible Human Resource Management

The contribution of socially responsible human resource management (SRHRM) to employee well-being, corporate legal compliance, and CSR initiatives has been the focus of extensive studies aimed at promoting organizational sustainability (Uddin et al., 2020; Orlitzky & Swanson, 2006; Newman et al., 2016; Shen & Benson, 2016; Shen & Zhang, 2017; Barrena et al., 2017; Sancho et al., 2018). Researchers are focusing their attention on socially responsible firms' policies and practices toward employees (Orlitzky & Swanson, 2006; Newman et al., 2016; Shen and Benson, 2016; Shen and Zhang, 2017; Barrena et al., 2017); SRHRM and stakeholders (Cantele, 2017); and SRHRM that help companies to engage in CSR initiatives for the purpose of achieving both short-term effectiveness and long-term sustainability (Shen & Benson, 2016). Human resource practices have a significant impact on the adoption of contemporary sustainability practices (Arago and Jabbour, 2017). Recent studies (Jabbour et al., 2019) have also found that human resource management helps organizations achieve their green and sustainable goals. Shen and Benson (2016) claimed that SRHRM is an integral component of CSR

programs and found a favorable correlation between SRHRM and employee organizational commitment. This concept represents a convergence between CSR and HRM literature (Nie et al., 2018) and is gaining momentum in the field of business ethics (Greenwood, 2013; Jamali et al., 2015; Nie et al., 2018). SRHRM has a substantial impact on the competitiveness or sustainability of a firm (Uddin et al., 2020). Sancho et al. (2018) found that SRHRM also has a positive impact to the competitiveness of businesses.

2.2 Green Human Resource Management

According to Amrutha and Geetha (2019), green human resource management (GHRM) can play a significant role in enhancing the sustainability of an organization by ensuring equity in society through establishing the well-being and welfare of workforces, as well as contributing to the attainment of financial stability and ecological stability. Researchers have looked at the use of the three main parts of GHRM: (a) green training, (b) green performance management, and (c) green employee involvement (Guerci et al., 2016; Masri & Jaaron, 2017; Pinzone et al., 2016). It is likely that providing green training and recognizing employee green efforts will enhance employee abilities and enable them to participate in green activities (Shen, Dumont, & Deng, 2018). Green training promotes organizational sustainability (Pinzone et al., 2019) and is crucial for implementing successful environmental management (Jabbour, 2013) and cleaner production (Pinzone et al., 2019). (Diana et al., 2017). Chaudhary (2019) describes the relevance of human resource management in ensuring environmental sustainability. It was revealed that there is a favorable connection between the GHRM and sustainable performance (Mosua & Othman, 2019; Kerdawy, 2018). Studies have also revealed that GHRM has a favorable effect on environmental sustainability (Masri & Jaroon, 2017). The effects of GHRM on employee behavior, ecological implementation, and organizational economic performance have already been documented in prior literature (Pham et al., 2019a, 2019b; Kim et al., 2019; O'Donohue & Torugsa, 2016; Longoni, Luzzini, & Guerci, 2018). However, there are few research studies in the GHRM literature that link organizations with the societal perspective of sustainability. However, we should not overlook the importance of concentrating on how GHRM affects the long-term sustainability of organizations by bringing together environmental, social, and economic performance in the pharmaceutical industry. This study places a strong emphasis on employee green training, green performance management, and green employee involvement in order to investigate the effect of GHRM on the organizational sustainability of pharmaceutical manufacturing organizations from the perspectives of ecological, social, and economic considerations.

2.3. Stakeholder Characteristics

Researchers claim that despite the fact that stakeholders play an important role in organizational sustainability (Hrisch et al., 2014; Kleine & Hauff, 2009), including performance measurement (Searcy, 2012), as well as assessment (Maas et al., 2016; Moldavska & Welo, 2016), it is unclear what stakeholder interactions and expectations have been examined, and there has been a lack of inquiries regarding stakeholders (Grewatsch & Kleindienst, 2017). Conferring to the findings of various studies, a number of stakeholders believe that the most recent sustainability legislation's measurement and assessment methodologies fall short of meeting their expectations (Silva et al., 2019). This study, therefore, adopts stakeholder characteristics and investigates their relationship with the organizational sustainability of pharmaceuticals. This study looks at the relationship between stakeholder characteristics and the organizational sustainability of pharmaceuticals. It focuses on stakeholders' knowledge, interaction, and behavior adaptation in response to stakeholder demand as its dimensions to extend the relationship between variables in the organizational sustainability model of pharmaceuticals.

2.4 Government Role

Literature demonstrates that the government role (GR) remains important for firms to promote social sustainability by recovering incentives so long as they support it, in addition to complying with sustainability regulations, acts, rules, and standards (Bamgbade et al., 2017). It also suggests a significant impact on sustainability practices (Manning et al., 2012), environmental regulations (Kumar, 2013), as well as welfare programs of inhabitants and factory workers (Azar and Menassa, 2012; Hua et al., 2014), with a concentration on government force, which has been identified as the most significant external power for the green policies of organizations towards sustainability (Zhu and Sarkis, 2007; Ye et al., 2013; El Baz & Laguir, 2017). Sometimes it is even found to be inconsistent, and sometimes it is found to have a significant impact (Blayse Manley, 2004; Massaroni Rossi, 2007; Qi, Shen, Zeng, & Jorge, 2010); other times it is the other way around (Engels, 2008); and people are unclear about the policies, regulations, and legislation. The outcomes are typically different from sector to sector on average (Zailani et al., 2012). The aim of this study is to find out how government role affects the sustainability of pharmaceutical organizations in Bangladesh. This will be done by looking at the topic from the point of view of Bangladesh's legal system, strategic incentives, and control monitoring policies.

2.5 Employee Behavior

Environmental programs frequently rely on employee behavior; as a result, it is now critical for businesses to preserve their employees' green and innovative behavior in order to mitigate the negative effects of environmental degradation. The first

category of employees' green behavior is related to **voluntary green behavior (VGB**). Employees' voluntary green behavior stimulates cooperation among themselves in the interest of environmental sustainability (Paillé, Mej-Morelos, Marché-Paillé, Chen, & Chen, 2016), and the same for innovative behavior (Paillé, Mej-Morelos, Marché-Paillé, Chen, & Chen, 2016). Voluntary green behavior has a substantial impact on either the competitiveness or sustainability of a business (Uddin et al., 2020). There is a one-to-one correlation between environmentally conscious actions taken by workers and the sustainability of the environment (Iqbal et al., 2018). The practical benefits of ecologically sustainable enterprises are brought into focus by the correlation between contentment in one's employment and voluntary green behavior in the workplace (Kim et al., 2018; Kim et al., 2017). There is a correlation between employee-organization fit and employee green behavior that is voluntary and this correlation is good (Xiao et al., 2020). According to research by Iqbal et al. (2018), green behavior concerns among employees are important to optimizing the sustainability effect in the organization. Hence, it has become a major trend in organizational research (Iqbal et al., 2018; Kim et al., 2018; Paillé et al., 2016; Kim et al., 2017; Chaudhary, 2019). In spite of the focus on voluntary green behavior in other organizational studies (e.g., Paillé et al., 2014; Paillé et al., 2016; Kim et al., 2017; Iqbal et al., 2018; Kim et al., 2018; Chaudhary, 2019; Xiao et al., 2020), no research has been conducted in the context of pharmaceutical organizations. Uddin et al. (2020) also recommended that future research investigate the indirect consequences of voluntary green behavior on SRHRM, organizational competitiveness, or sustainability. This is the first study to look at how voluntary green behavior affects the organizational sustainability of pharmaceutical companies. The second segment of employees' behavior is related to **innovative behavior (IB).** Literature demonstrates that innovative behavior is a crucial employee effect associated with the human dimension of organizational sustainability. For attaining a competitive edge and establishing organizational sustainability, management researchers must analyze this dynamic component in great depth (Li et al., 2019). In order for businesses to make use of their employees' creativity (Van de Ven, 1986; Smith, 2002), they must foster innovative working environments (Janssen, 2000). Even though innovative behavior research is still in its early stages (Christian et al., 2011), managers and practitioners are continually concerned with innovation in order to achieve long-term organizational success (Ancona & Caldwell, 1992). This dimension is used in this study to show how innovative behavior affects the business sustainability of the pharmaceutical industry in Bangladesh.

In relation to voluntary green behavior, innovative behavior, and socially responsible human resource management, organizational sustainability is a desirable outcome for pharmaceutical sectors. Green human resource management, stakeholder characteristics, and proper consideration of government role in Bangladesh lead to sustainable manufacturing sectors from every perspective of the upcoming world. The study chose the converging area of these influential factors towards organizational sustainability in Bangladesh's pharmaceutical industry to focus on the significance of these issues, leading employees to engage in voluntary green and innovative behavior towards organizational sustainability as this perspective is yet unnoticed. This study examines how socially responsible HRM, green HRM, stakeholder characteristics, government role, and organizational sustainability results in Bangladeshi pharmaceutical enterprises contribute to a sustainable manufacturing sector. It will also help organizations in Bangladesh's pharmaceutical industry maximize organizational sustainability, voluntary green behavior, and innovative behavior in organizations with socially responsible human resource management, green human resource management, and proper stakeholder consideration.

3. Challenges of Bangladesh Pharmaceutical Industry Toward Sustainability :

Environmental sustainability, sustainable human resource management, green human resource management, corporate social responsibility, socially responsible human resource management, employee green behavior, and innovative behavior are all becoming core focuses for many organizations around the world as pressure mounts to reduce the negative environmental effects of their activities and to uphold environmental rules and regulations. Organizations face similar challenges as environmental issues such as climate change, global warming, pollution, and the energy crisis. These push enterprises to adopt green practices. Globalization and consumer demand for excellent products have forced sectors to improve product quality. Industries have only concentrated on economic rewards to achieve quality requirements. It has led to the consumption of nonrenewable resources, waste, and pollution (Cassettari et al., 2017). Non-governmental organizations and rigorous government laws enforce industry limits to sustain the environment. Government rules prevent industries from breaching laws and releasing dangerous emissions (Bonizella & Sagar, 2004). In such a paradoxical position, we embrace the advanced paradigm that can deliver financial gains without compromising environmental preservation (Chan et al., 2017). It's important for industries to embrace novel paradigms for eco-friendly operations; otherwise, government laws could threaten their market presence (Esfahbodi et al., 2016).

Increasing industrialization, population growth, and environmental degradation of air, water, and land are causes for fear. Most developed countries have failed to pass environmental regulations to combat rising pollution. Developing countries have significant implementation challenges. Insufficient environmental compliance increases a country's total pollution; Bangladesh is the world's most polluted country (World Air Quality Report, 2019). If the Bangladeshi pharmaceutical manufacturing business is to be competitive and sustainable in its whole market, it must enhance its environmental and social performance. This industry won't be competitive or sustainable. Unless the company improves its environmental, social, and economic performance, it won't be able to expand its overall market. Environmental protection, social improvement,

and economic development with management techniques are organization essentials. The Bangladeshi pharmaceutical sector must address these difficulties to be competitive and sustainable. This research aims to help Bangladesh's pharmaceutical industry obtain financial and environmental benefits by adopting a socially and environmentally friendly approach. This study intends to boost Bangladesh's efforts by changing deeds and creating winning scenarios for all stakeholders, including government, greening, and social activities. This study enhances the contribution of socially responsible HRM and green HRM, stakeholder consideration, and government engagement to stimulate voluntary green behavior and innovative pharmaceutical production, leading to organizational sustainability.

4. Future of Bangladesh Pharmaceutical Industry

Bangladesh's manufacturing industry is vibrant, export-oriented, and economically important. Bangladesh's economy relies heavily on agriculture, like many South Asian nations. In recent years, manufacturing and the service sector have both become economic drivers. The industrial contribution to GDP in 2019-2020 is 31.13%, and the manufacturing sector's contribution is 19.67% (BBS, 2020). Manufacturing employment in total employment is 14.4%. (BBS, 2018). In recent years, Bangladesh's pharmaceutical exports have hit a record high, with a 16% average annual compound growth rate (ACGR) since 2006 (Islam et al., 2020). In 2019, a record 25.6% annual growth led to $130 million in exports (Razzaque et al., 2020), which was 65 times more than in 2000. If the 23% average annual export growth rate from the past five years continues, exports might reach $1.3 billion by 2030 (Razzaque et al., 2020). Bangladesh's government has recently emphasized exporting pharmaceuticals. Pharmaceuticals will be the second-biggest export after ready-made garments. These indicators show the industry's impact on Bangladesh's economy.

This industry will be Bangladesh's top when it demonstrates sustainability in society, the economy, and the environment. To be a responsible and sustainable company, it must improve its socially responsible human resource management and green human resource management practices, consider its stakeholders and the government's role, and ensure voluntary green behavior and innovative behavior among its employees, creating a positive image for society, the economy, and the environment.

5. Recommendation and Conclusions

Pharmaceutical production boosts sustainability and promotes broad access to cutting-edge drugs. Technological improvements, such as nonstop industrial processes (Lee et al., 2015) and industry 4.0 (Branke et al., 2016), are dictating and modifying the pharmaceutical manufacturing sector's conservative scenario. Emerging markets and healthcare structures are expected to affect pharmaceutical operations and commercial imitations. This sector's ever-changing environment forces pharmaceutical manufacturers to abandon their conservative operating techniques and adopt more efficient, sustainable, adaptable, and customer-focused ones (Marques et al., 2019). Given the importance of the pharmaceutical business, policymakers around the world focus on ensuring sustainable pharmaceutical manufacturing. Sustainable development goals (United Nations, 2015) recommend promoting sustainable growth, efficient use of limited resources, limiting environmental damage (The World Bank, 2014), and treating employees as members of society (Tajbakhsh & Hassini, 2015). Several developed and developing countries have already started their own projects to make the pharmaceutical industry more sustainable, with the goal of proving their sustainability performance.

This study contributes to the management and organizational sustainability literature by addressing the issues and challenges of socially responsible human resource management, green human resource management, stakeholder characteristics, government role, voluntary green behavior, and innovative behavior in the context of environmental, social, and economic management. This study's managerial contribution is an in-depth understanding of issues such as socially responsible human resource management; green human resource management; stakeholder characteristics; government role; voluntary green behavior; and innovative behavior as they pertain to the organizational sustainability of Bangladesh's pharmaceutical industry. The study identifies and clarifies multidimensional elements that influence the organizational sustainability of pharmaceuticals by enhancing the aspects of these issues for the sustainability of pharmaceutical manufacturing companies. This study's measurement of sustainability can serve as a guide for organizations seeking to become environmentally, socially, and economically sustainable. The study also assists management in implementing the aforementioned challenges and achieving sustainability. The pharmaceutical sector is becoming increasingly concerned with socially responsible human resource management, green human resource management, stakeholder characteristics, government role, voluntary green behavior, innovative behavior, and organizational sustainability. Pharmaceutical companies in developing countries can't just ignore these problems.

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Conflicts of Interest

The authors declare no conflict of interest.

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