

RESEARCH ARTICLE

Current State of Human Development and Human Capital Reporting Practices in Bangladesh towards Sustainability

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Abstract

Globally, human development and capital reporting are recognized as crucial elements for achieving overall sustainability. Bangladesh has the opportunity to transform its existing manpower into valuable human resources through effective development and recognize them as human capital. Thus, the objective of the study is to assess the current state of human development and capital reporting practices in Bangladesh to achieve sustainability. 36 banking companies, 7 ceramic companies, and 5 cement companies listed on the Dhaka Stock Exchange (DSE) in Bangladesh constituted the sample for this study. We conducted a thorough content and thematic analysis of the annual reports at each firm. We used a predefined index specifically designed for measuring human development and capital reporting. Findings revealed that, among the industries, the banking sectors have made significant progress in human development and capital reporting over the cement and ceramic industries. In Bangladesh, there is a significant deficiency in reporting on human capital, including a lack of details regarding the financial worth. Moreover, this study provides a model for implementing effective strategies in human development and capital reporting to achieve overall organizational sustainability. It will contribute to a transformation of the organization's perspectives on human development and capital reporting to achieve sustainability.

Keywords: Human development; human capital; human capital reporting; organizational sustainability

Introduction

The increasing manifestation of human potential, which leads to more options, opportunities, and the achievement of human rights, is known as human development. The process of physical, mental, and emotional development that people go through over their lifetimes is referred to as human development. Human development refers to the process of expanding people's alternatives and possibilities, not just their wealth and income. To maintain a decent quality of life, human development requires a sustained and strong state of well-being, knowledge accumulation, and the availability of resources. The human development index encompasses physical well-being, mental health, empowerment, political freedoms, social connections, community welfare, inequities, working circumstances, leisure possibilities, political stability, economic stability, and environmental

quality (ABDULKARIM, 2023). Ultimately, the process involves fostering the growth of individuals' skills and providing opportunities for their application. Human capital management views personnel management as a strategic issue of paramount significance and methodically aims to investigate, quantify, and evaluate the ways that people-related policies and practices contribute to value creation. Human capital, which includes copyright, customer connections, brand value, corporate image, trademarks, and more, is seen by organizations as an essential part of their intangible assets. Education and training foster workers' competence, creativity, and inventiveness, which are essential for achieving business success. Deepalakshmi et al., (2024) asserted that human engagement, capital establishes the connection between human resources strategy and business performance. Serenko et al., (2024) indicated that employee job satisfaction mitigates turnover intention, thereby decreasing human capital attrition and subsequently enhancing business performance.

Deming (2022) analyzed and consolidated the insights gained by economics about human capital since Becker (1962) into four stylized realities. Human capital constitutes no less than one-third of the wage disparities within nations and at least fifty percent of the variations between nations. Secondly, investments in human capital provide substantial economic benefits throughout youth and early adulthood. Third, we understand the methodology for developing core skills such as reading and numeracy, with resources often serving as the primary limitation. Fourth, advanced competencies like problem-solving and collaboration are becoming more essential, although the technology for cultivating these talents remains poorly understood. Research by Hatemi-J and Shamsuddin (2016) unequivocally showed that financial progress and human development are correlated. Over the past ten years, the potential for migration to contribute to development through the size of remittances and their impact on economic development has drawn increased attention from international organizations, development agencies, and policymakers to the countries of origin of migrants (De Haas and Rodriguez, 2010). Human migration benefits the countries of origin in terms of income, living circumstances, health, education, and political processes, according to recent studies. De Haas and Rodriguez (2010) view migrants as a significant source of both skilled and unskilled labor. This situation calls for human growth. However, companies view human capital management as crucial to their success. Organizations commonly acknowledge human capital as an essential resource (Moller et al., 2011). In a knowledge-based economy, human capital—which includes intangible assets—is essential to an organization's success. People are becoming more aware of how crucial human capital data is to a company's reputation. Kramar (2022) studied that sustainable human resource management (HRM) has been developing for over 15 years. Sustainable HRM prioritizes comprehensive organizational objectives across various domains, rather than solely focusing on 'business' objectives. Sustainable HRM aims to attain favorable economic, social, human, and environmental results simultaneously, both in the short and long terms. According to Gamerschlag and Moeller (2011), it directly affects financial performance and ultimately raises shareholder value. Both internally and externally, businesses assess and incorporate human capital into their management control and reporting systems. Research by Moller et al. (2011) found a relationship between human capital and shareholder structure, industry involvement, and firm size.

Annual reports on 'Human Development' for every country have been released by the United Nations Development Programme (UNDP) since 1990. The Human Development Index (HDI) measures a nation's social and economic advancement by considering factors such as life expectancy, educational attainment, and per capita income. Ultimately, Ogujiuba et al. (2024) underscore the need for sustaining a long-term commitment to successful and inclusive human development programmes. The Human Development Index (HDI) measures a nation's social and economic advancement by considering factors such as life expectancy, educational attainment, and per capita income. Ultimately, Ogujiuba et al. (2024) underscore the need for sustaining a long-term commitment to successful and inclusive human development programmes. As the main framework to lead the world towards a more affluent, egalitarian, and sustainable future, 193 UN member states

adopted the 2030 Agenda for Sustainable Development Goals (SDGs) and its SDGs in September 2015 (Richiedei and Pezzagno, 2022). Organizations must streamline and integrate their operations to achieve the Sustainable Development Goals (SDGs) established by the UN. To increase the extent of their positive impact, they should also strive for improved scalability. To achieve a better and more sustainable future for current and future generations, the SDGs are a comprehensive set of interrelated goals and a strategic plan. Human development is closely linked to the 17 SDGs: eradicating poverty and hunger, promoting health and well-being, and ensuring gender equality; quality education; clean water and sanitation; affordable and clean energy; economic growth and decent work; industry, innovation, and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production practices; and climate action. Peace, justice, robust institutions, aquatic and terrestrial life, and collaboration towards common objectives inadvertently link to human progress.

Recently, Bangladesh has been upgraded from one of the least developed countries to a developing one with remarkable progress in several macroeconomic areas (Uddin et al., 2024, and Uddin et al., 2022). Bangladesh's economy is stable despite the COVID-19 pandemic and the continuing war between Russia and Ukraine because of a continuous flow of remittances (Mamun and Kabir, 2023).

In advanced countries, human capital reporting has mostly flourished. Unfortunately, the understanding of the importance of human development, human capital management, and reporting is still in its infancy in developing countries such as Bangladesh. This study is the first attempt in Bangladesh to determine the current condition of human development, human capital management, and reporting systems, despite their strong correlation with elements like financial performance and company reputation. At the same time, reporting practices and human capital management are not up to par with international norms. Khan and Khan (2010) examined how well-known Bangladeshi enterprises reported on their human capital. They discovered that information regarding employee training, the overall number of workers, career development and advancement possibilities provided by enterprises, and the hiring practices of these organizations is among the most often shared human capital data. Between 2009 and 2010, human capital reporting somewhat increased as a result of regulatory activities.

Human capital reporting mostly thrived in developed economies. Unfortunately, in developing nations like Bangladesh, human development, human capital management, and reporting continue to receive minimal attention and are still in their early stages. It is intimately linked to business reputation and financial success, among other factors. This research is the first attempt in Bangladesh to assess the prevailing organizational perspective on human development, human capital management, and reporting procedures. Accordingly, firstly, what are the current state of human development and human capital reporting practices among companies listed on the DSE? At the same time, what steps should be taken, and how do you prepare an appropriate model for human capital reporting? The matter is uninvestigated yet. Therefore, firstly, the objective of the study is evaluating the organizational present standing toward human development, human capital management, and reporting practices in Bangladesh. Secondly, this study aims to develop a theoretical model of "human capital reporting" for the achievement of organizational sustainability.

Literature Review

A monthly summary of the remittance flows for wage workers throughout the fiscal year 2022–2023 is shown in Table 1. These remittances benefited Bangladesh's economy.

Table 1: Monthly data of Wage earner's remittance

Fiscal Year: 2022-2023 [Monthly data of Wage earner's remittance]

Name of the Month	In million US dollar	In billion Taka
April	1683.51	173.27
March	2022.47	206.22
February	1560.48	157.54
January	1958.87	195.67
December	1699.70	168.01
November	1595.17	155.71
October	1525.54	147.39
September	1539.60	147.21
August	2036.93	193.32
July	2096.32	196.82

Source: Bangladesh Bank (As on 11 May 2023).

Bangladesh can sustain this impressive inflow of remittances from abroad by guaranteeing proper human development. Bangladesh is one of the most densely populated countries in the world. It has the opportunity to shift its population burden to human resources. This situation indicates the necessity of human development in emerging countries like Bangladesh.

Human Development for Achieving SDGs

Environmental sustainability and social and economic advancement are the two primary pillars of the SDGs (Opoku et al., 2022). Globalization is a significant aspect that affects how human development and natural resources interact, according to Sinha and Sengupta (2019). Moyer and Bohl (2019) examined three possible strategies for achieving the SDG goal: decentralized governance, lifestyle change, and technology. Moreover, people often view the technical path as the most effective approach to advancing human development. Last but not least, we recommend international efforts to sustainably advance human development. Creating and fostering opportunities for communities to flourish and acquire the skills necessary to promote inclusive development is part of the commitment to promoting sustainable, inclusive, and resilient societies (Sinha and Sengupta, 2019). Opoku et al. (2022) examined the connection between environmental sustainability and human development progress. According to Opoku et al. (2022), advancements in human capital, education, and the human development index all lead to a reduction in the ecological footprint, carbon dioxide emissions, total greenhouse gas emissions, and air pollution exposure. In the end, such progress promotes environmental sustainability. According to Hotez and Herricks (2015), the SDGs share many of the same priorities as the Millennium Development Goals (MDGs), including eradicating poverty, promoting gender equality, advancing human and economic development, ensuring food security, protecting the environment, addressing climate change, and conserving biodiversity. Therefore, the SDGs establish a connection with human development.

Human Capital Reporting in Global Aspect

Abraham and Mallatt (2022) conducted a survey of the current literature about the assessment of human capital. Economists have generally suggested three methodologies for developing human capital metrics: the indicator approach, the cost approach, and the income approach. Choo Huang et al., (2013) examined human capital declarations in emerging nations. The human capital information offered is sparse and mostly emphasizes

directors, many of whom may serve as figureheads with little influence on corporate operations and value creation for the organization. Consequently, analysts depend on alternate sources to get the necessary information, which is an expensive endeavor for private shareholders. Human capital reporting increased in the UK as a result of government legislation and other initiatives (McCracken et al., 2018). In 2017, Bryl and Truskolaski concluded that the human capital disclosure indexes for German and Polish companies were insufficient. Metelytsia and Gagalyuk (2024) examined the introduction of the Sustainability Reporting Platform to the scientific and professional community, which serves as the foundation for the preparation of the ESGI report (Sustainable Development and Investment Report). Metelytsia and Gagalyuk (2024) delineated standardized forms and metrics for assessing, preparing, and publishing information about human and social capital, since this aspect of agricultural output is particularly vulnerable and unregulated under martial law. The Sustainability Reporting Platform has three elements: the ESGI report, webinars (including videos and materials), and publications (such as scholarly papers and presentations). To thoroughly assess and convey the social dimensions of an enterprise's economic activities, Metelytsia and Gagalyuk (2024) presented ten indicators. 1) Material social risks and opportunities; 2) Social risks and transition opportunities; 3) Social risks associated with martial law; 4) Diversity of human capital; 5) Work-life balance; 6) Employment dynamics; 7) Adequate remuneration; 8) Education and career advancement; 9) Occupational health, safety, and hygiene; 10) Freedom of collective bargaining and social dialogue. Atiku and Lawal (2022) demonstrated that the existing production and consumption systems have engendered several social and environmental challenges inside the global corporate landscape. These challenges are a concern for several policymakers worldwide. The core objective of the sustainability policy framework is to convert the global economy into a more sustainable model. The advancement of human capital is pivotal to economic change. Atiku and Lawal (2022) advocate for the convergence of human and organisational development strategies together with a national development plan and the economic, social, and environmental pillars of sustainability to facilitate a successful transition to a sustainable economy. The human capital development plan is a thorough way to look into the four greens (green savings, green opportunities, green talent, and green locations) in order to make the economy more sustainable. Opoku et al. (2022) conducted a study indicating that, given that the Sustainable Development Goals (SDGs) are interconnected and the achievement of one facilitates the success of others, we conceptualise the SDGs through two dimensions: (i) economic and social development and (ii) environmental sustainability. Opoku et al. (2022) investigates the correlation between economic and social growth and human development, specifically how advancements in human development facilitate the achievement of environmental sustainability. Opoku et al. (2022) demonstrate that an increase in human development, as measured by the human development index, education, and human capital, results in enhanced environmental sustainability through a decrease in ecological footprint, carbon dioxide (CO₂) emissions, total greenhouse gas (GHG) emissions, and exposure to air pollution. The results underscore that human development positively impacts environmental sustainability.

Human Capital Reporting Practices and Firm's Performance

Employees' entrepreneurial human capital has a strong and favourable impact on business success, according to Braunerhjelm and Lappi (2023). Fedyk and Hodson (2023) examined the correlation between technically skilled human capital and firm performance. All five technical skills sets correlate with elevated business values. Fedyk and Hodson (2023) underscore that corporate overinvestment can also encompass intangible assets, including skilled personnel. Kampoowale et al. (2025) examine the relationship between digital transformation (DT), human capital (HC), and firm performance (FP) using the resource-based view (RBV) and dynamic capacity theory (DCT). The results indicate that management support (MS) and digital capabilities (DC) have a

significant impact on DT. Simultaneously, DT exerted a significant and positive influence on HC. Furthermore, FP was significantly impacted by HC. Furthermore, this research confirms that HC fully mediates the link between DT and FP. Research on the benefits of revealing human capital in relation to company reputation, financial performance, and shareholder value was carried out by Gamerschlag and Moeller (2011). Human capital, particularly firm-specific human capital, strongly correlates with the performance of businesses (Crook et al., 2011). Micah et al. (2012) discovered a relationship between the disclosure of human resource accounting and the financial success of businesses, particularly in terms of return on equity. Additionally, Micah et al. (2012) noted that this kind of disclosure is essential for building credibility and improving one's external reputation. The success of a company, especially its diversification and internationalization plan, is greatly influenced by the human capital of its directors, which includes foreign experience, industry know-how, CEO experience, and financial know-how. Furthermore, Volonte and Gantenbein (2016) establish a connection between acquisition strategy and human capital. According to Seleim et al. (2007), there is a statistically significant positive link between certain human capital metrics and business success. Salvi et al. (2022) demonstrated that human capital (HC) disclosure significantly reduces the cost of capital and positively influences business value. Salvi et al. (2022) indicated that enhancing human capital disclosure enables enterprises to diminish investors' perceived company risk, resulting in a reduced cost of capital. Furthermore, Salvi et al. (2022) indicated that heightened levels of HC disclosure correlate with enhanced access to external financial resources for enterprises, hence augmenting firm value. Additionally, Chen et al. (2021) utilised an intellectual-capital framework to investigate the correlation among three categories of human resource development (HRD) practices (namely, developmental, constructive, and collaborative HRD practices), three facets of intellectual capital (specifically, human capital, organisational capital, and social capital), and enhancements in organisational performance. Chen et al. (2021) examined the mediating role of intellectual capital in the link between HRD practices and variations in organisational performance. Chen et al. (2021) demonstrated that human capital and social capital mediate the relationship between HRD practices—specifically, developmental and collaborative HRD practices—and enhancements in organisational performance as measured by return-on-assets growth.

Methodological Approaches Used in Human Development Researches

To find recurrent themes, conceptual frameworks, and strategic implications of Sharia-based human capital development, Ashari et al. (2025) demonstrated content analysis. Using a Human Capital Disclosure Index (HCDI) and a content analysis approach, GOSWAMI and Pyne, A. S. (2025) examined the level of human capital disclosure. Bryl and Truskolaski (2017), developed a human capital disclosure index that includes information on people, internal communication, and employee development policies. A methodology for standardizing the understanding and reporting of human capital to investors was presented by O'Donnell et al. (2009). Using a content analysis technique, Absar et al. (2014) examined the themes, formats, quantities, and locations of voluntary human capital reporting practices in Bangladeshi banking companies' annual reports. Using a human capital reporting framework, Khan and Khan (2010) used text analysis to evaluate the frequency of human capital reporting practices in well-known Bangladeshi businesses. Nurunnabi et al. (2011) examined the relationship between a company's attributes and its degree of intellectual capital reporting. They accomplished this by using ordinary least squares regression analysis, a weighted disclosure index, and content analysis of annual reports.

Human Capital Management and Reporting Practices in Bangladesh

Saha et al. (2025) examined the influence of human capital and remittances on agricultural output in Bangladesh. The results demonstrate a favourable correlation between agricultural labour productivity and both human capital and remittance inflows, with further enhancements seen through increased access to technology and electricity. Hossain (2025) demonstrated that human capital, including healthy human capital shown by infant mortality rates and technologically competent human capital represented by internet users, has a substantial beneficial influence on the economic development of Bangladesh, at both the 1% and 10% levels of significance. Absar et al. (2021) investigated the extent of voluntary healthcare disclosures (HCD). The content analysis, which utilised a detailed 30-item disclosure index, reveals that the level of healthcare disclosure on banks' websites in Bangladesh is very low. When compared to the total number of items submitted, the human capital reporting practices of well-known Bangladeshi businesses are not as small as they seem. Businesses most often report aspects of human resource disclosure such as employee training, the number of employees, career advancement, business possibilities, and hiring procedures. According to Khan and Khan (2010), the participation of Bangladeshi regulators is responsible for the slight improvement in human capital reporting practices by well-known Bangladeshi enterprises between 2009 and 2010. Bangladeshi banks provide details on their human resources in their annual financial filings. Moreover, 'employee training and development' is the most frequently mentioned subject in the field of human capital challenges. Five banks in the survey also stated that they have specific sections for reporting on human capital. According to Absar et al. (2014), over 93% of the institutions polled offered quantitative data on human capital issues. Nurunnabi et al. (2011) examined the disclosure practices of non-financial companies listed in Bangladesh regarding their intellectual capital. Nurunnabi et al. (2011) also examined the variables that influence the reporting of intellectual capital in South Asian developing nations. According to the study's results, Bangladeshi businesses often exclude information on intellectual capital from their yearly reports.

In developed countries, there is a noticeable increase in human capital reporting, human capital management, and human development. Bangladesh's economy has expanded considerably during the recession, but the growth of reporting, human capital management and human resources development has not been as strong as expected. With the goal of reaching the SDGs by 2030, Bangladesh has moved from the list of least developed countries to the list of developing countries. There is an intimate relationship between reporting, human capital management, and human development.

Therefore, the primary purpose of the study is to assess the current status of organizations in Bangladesh regarding human development, human capital management, and reporting methods. This work seeks to provide a theoretical model of "human capital reporting" for achieving organizational sustainability.

Methodology

Selected Industry

We have specifically selected the banking, cement, and ceramic industries from among the sectors listed on the Dhaka Stock Exchange (DSE) since they are closely related to human development. The result is seen in the table that follows.

Table 2: Selected Industry from the DSE

Name of the industry	Number of companies listed at DSE
Banks	36
Cement	7
Ceramic	5
Total	48

Source: Dhaka Stock Exchange (DSE).

Name of the Selected Sectors

Selected Banks Name

As of May 30, 2024, Bangladesh's Dhaka Stock Exchange (DSE) listed thirty-six banks. All banks are considering this study to achieve the targeted research goal.

Table 3: Selected banks from Banking Industry from the DSE

Name of the Bank	DSE Identification
AB Bank PLC.	ABBL
Al-Arafah Islami Bank PLC.	ALARABANK
Bank Asia PLC.	BANKASIA
BRAC Bank PLC.	BRACBANK
The City Bank PLC.	CITYBANK
Dhaka Bank PLC.	DHAKABANK
Dutch-Bangla Bank PLC.	DUTCHBANGL
Eastern Bank PLC.	EBL
Export Import Bank of Bangladesh Ltd.	EXIMBANK
First Security Islami Bank PLC.	FIRSTSBANK
Global Islami Bank PLC.	GIB
ICB Islamic Bank Limited	ICBIBANK
IFIC Bank PLC.	IFIC
Islami Bank Bangladesh PLC.	ISLAMIBANK
Jamuna Bank PLC.	JAMUNABANK
Mercantile Bank PLC.	MERCANBANK
Midland Bank Limited	MIDLANDBNK
Mutual Trust Bank PLC.	MTB
National Bank Ltd.	NBL
National Credit and Commerce Bank PLC.	NCCBANK
NRB Bank Limited	NRBCBANK
NRBC Bank PLC.	NRBCBANK
One Bank PLC.	ONEBANKLTD
Premier Bank PLC.	PREMIERBAN
Prime Bank PLC.	PRIMEBANK
Pubali Bank PLC.	PUBALIBANK
Rupali Bank PLC.	RUPALIBANK

Table 3 Continued . . .

South Bangla Agriculture & Commerce Bank PLC.	SBACBANK
Shahjalal Islami Bank PLC.	SHAHJABANK
Social Islami Bank PLC.	SIBL
Southeast Bank PLC.	SOUTHEASTB
Standard Bank PLC.	STANDBANKL
Trust Bank Limited	TRUSTBANK
United Commercial Bank PLC.	UCB
Union Bank PLC.	UNIONBANK
Uttara Bank PLC.	UTTARABANK

Source: Dhaka Stock Exchange (DSE).

Name of the Companies from Cement Sector

Seven cement companies were listed on Bangladesh's Dhaka Stock Exchange (DSE) as of May 30, 2024. The results of this study are being considered by all cement companies listed on the Dhaka Stock Exchange (DSE) in order to carry out focused research.

Table 4: Name of the companies from Cement Sector

Name of the Cement Companies	DSE Identification
Aramit Cement Limited	ARAMITCEM
Confidence Cement Ltd.	CONFIDCEM
Crown Cement PLC	CROWNCEMNT
Heidelberg Cement Bangladesh Ltd.	HEIDELBCEM
LafargeHolcim Bangladesh Limited	LHBL
Meghna Cement Mills Ltd.	MEGHNACEM
Premier Cement Mills PLC	PREMIERCEM

Source: Dhaka Stock Exchange (DSE).

Name of the Companies from Ceramic Sector

Five ceramic firms were listed on Bangladesh's Dhaka Stock Exchange (DSE) as of May 30, 2024. To conduct more precise research, this study takes into account every ceramic company registered on the Dhaka Stock Exchange (DSE).

Table 5: Name of the companies from Ceramic Sector

Name of the Ceramic Companies	DSE Identification
Fu-Wang Ceramic Industries Ltd.	FUWANGCER
Monno Ceramic Industries Ltd.	MONNOCERA
RAK Ceramics (Bangladesh) Limited	RAKCERAMIC
Shinepukur Ceramics Limited	SPCERAMICS
Standard Ceramic Industries Ltd.	STANCERAM

Source: Dhaka Stock Exchange (DSE).

Data Set Development

The authors assembled an extensive dataset by closely analyzing the corporate annual reports of companies in the banking, cement, and ceramic sectors listed on the Dhaka Stock Exchange (DSE). The authors looked at the index for human development and human capital reporting practices using this dataset. For the fiscal years 2022–2023 and 2023–2024, the authors thoroughly examined the corporate annual reports of every company in chosen sectors.

Construct for the Measuring the Status of Human Development and Capital Reporting Index

As shown in Table 6, the authors have created the following constructs based on the body of current research and the international human development index.

Table 6: Measurement Construct of Human Development and Capital Reporting Index (HDCRI)

Items	Codding	Measurement Construct
Bodily Wellbeing	BW ₁	Basic human needs, health, vigor, safety, food, and water
Mental Wellbeing	MW ₂	Life satisfaction
Empowerment	EP ₃	Freedom of Choice and actions
Political Freedom	PF ₄	Political and civil liberties, freedom of worship, political freedom, freedom of press, and juridical independence
Social Relation	SR ₅	Self-respect and dignity, Friendly environment, Friends and family gathering
Community Wellbeing	CW ₆	Membership of civic association, rule of law, training , awareness program, and community development
Inequalities	IEQ ₇	Gender equal treatment, racial equal treatment, ethnicity, and equality in promotion
Work Condition	WC ₈	Freedom of occupation, Child labor, minimum wage policy, fixed working hour, and extra payment for overtime,
Leisure Condition	LC ₉	Telephone, cell phone, FM radio, internet access, newspaper, magazines, and social media access
Political Security	PS ₁₀	Lawfulness, and political violence
Economic Security	ES ₁₁	Social security coverage, and fair remuneration policy
Environmental Condition	EC ₁₂	Environmental and sustainability practices, and environmental awareness

Source: Developed by authors based on existing literatures.

Anand and Sen (1994) developed the Human Development Index: Methodology and Measurement. Friderichs et al. (2022) examined the measurement of human capital in South Africa using a methodology based on a socioeconomic status index for human capital. Mudgal and Manglani (2023) presented an updated human development index for BRICS countries, utilizing a holistic framework for sustainable human development. Folloni and Vittadini (2010) delineated the two primary methodologies for assessing the value of Human Capital stock. These strategies are associated with the paradigm of human capital investment as a rational decision-making process. The literature examines the impact of human capital investment on economic growth and the methodologies for assessing human capital through educational attainment. The latest literature on HC as a latent variable is also evaluated. The aforementioned literature indicates that human development and

human capital reporting practices universally utilize it. Accordingly, the authors have developed the "Human Development and Capital Reporting Index" (HDCRI) illustrated briefly at table 6 to assess the current status of human development and capital reporting practices in Bangladesh.

Performance Calculating Model

The authors created and used the following formula to calculate the firm's performance on the Human Development Index Reporting Items.

$$PHDCRI = \frac{\text{Actual Numbers of Index on HDCRI}}{\text{Total Numbers of Index on HDCRI}} \times 100$$

Where,

PHDCRI = Performance of Human Development and Reporting Index

HDCRI = Human Development and Capital Reporting Index

Content and Thematic Analysis, and Coddling Framework

The content analysis method has traditionally been used to scrutinize texts and documents, with the objective of quantifying content based on defined categories in a systematic and replicable manner (Bryman and Hardy, 2009). The content analysis method is utilized to identify characteristics and measure information within a text by classifying it according to defined criteria, assigning each information unit to a category, and counting the total occurrences and frequencies within each category (Data and Silverman, 2011). This study investigates the degree of human development and capital reporting practices in the annual reports of selected DSE-listed corporations. The primary emphasis of this study is the content and thematic analysis of corporate annual reports from corporations. The authors manually constructed the data set using the annual reports of chosen firms. The predetermined indexed items were assigned a score of 1 for accurate disclosure and fulfillment of human development and capital reporting, and a score of 0 for inaccurate disclosure and failure to achieve human development and capital reporting. Human development and capital reporting methodologies are scored on a scale from 0 to 1. A score of 1 signifies complete transparency in human development and capital reporting, while a score of 0 shows a lack of disclosure. An Excel spreadsheet was created for each sample company, with rows indicating the acquired score and columns reflecting the different index components.

Analysis Method

The existing literature indicates that a significant portion of research focuses on comprehensive content analysis and thematic analysis methods, juxtaposing actual scenarios with predetermined index items. This study analyzed the contents of corporate annual reports in relation to the pre-established Human Development and Capital Reporting Index (HDCRI). Subsequently, to assess the company's individual performance in human development and capital reporting, the following formulas were used and the results are shown in Tables 7, 8, and 9, respectively, with brief illustrations.

$$PHDCRI = \frac{\text{Actual Numbers of Index on HDCRI}}{\text{Total Numbers of Index on HDCRI}} \times 100$$

Subsequently, literature support has been provided, to which the results both corroborated and contradicted with related justification.

Results and Discussions

Banks Performance on Human Development and Capital Reporting

Table 7: Performance of Banks in HDIRI

DSE Identification	Performance in %
ABBL	50
ALARABANK	0.00
BANKASIA	25
BRACBANK	100
CITYBANK	83.33
DHAKABANK	83.33
DUTCHBANGL	41.67
EBL	0.00
EXIMBANK	41.67
FIRSTSBANK	25
GIB	0.00
ICBIBANK	0.00
IFIC	41.67
ISLAMIBANK	16.67
JAMUNABANK	41.67
MERCANBANK	16.67
MIDLANDBNK	25
MTB	41.67
NBL	25
NCCBANK	16.67
NRBCBANK	25
NRBCBANK	41.67
ONEBANKLTD	0.00
PREMIERBAN	16.67
PRIMEBANK	100
PUBALIBANK	83.33
RUPALIBANK	83.33
SBACBANK	33.33
SHAHJABANK	33.33
SIBL	25
SOUTHEASTB	58.33
STANDBANKL	83.33
TRUSTBANK	41.67
UCB	33.33
UNIONBANK	41.67
UTTARABANK	50

Source: Determined and calculated by authors.

The majority of 36 banks' corporate annual reports, which were analyzed, included human development; some even mentioned human capital, which is definitely a step in the right direction. Nevertheless, a number of banks, including ALARABANK, EBL, GIB, ICBIBANK, and ONEBANKLTD, have neglected to address human capital and human development concerns in their corporate annual reports, which has had detrimental effects. The study's other noteworthy conclusion is that banks differ greatly in how they handle human development concerns and include human capital in their corporate annual reports.

Absar et al. (2014) revealed that five Bangladeshi banks include specific sections for reporting human capital in their annual reports. Furthermore, Absar et al. (2014) reveal that about 93% of the sampled banks quantitatively report human capital. Our research results strongly correlate with the outcomes of this study. Furthermore, Ridhuan et al. (2016) used text analysis to extract human capital-related information from the annual reports of 23 banks and financial organizations listed on Bursa Malaysia. Ridhuan et al. (2016) identified a progressive trend in the disclosure of human capital information across the examined years. Ridhuan et al. (2016) advise banks to provide information that showcases their strength and worth in human resources. Our research findings corroborated the same results.

Cement Sector Performance on Human Development and Capital Reporting

Table 8: Performance of cement companies in HDIRI

DSE Identification	Performance in %
ARAMITCEM	16.67
CONFIDCEM	0.00
CROWNCEMNT	25
HEIDELBCEM	16.67
LHBL	25
MEGHNACEM	25
PREMIERCEM	33.33

Source: Determined and calculated by authors.

This study examines the industry for the fiscal years 2022–2023 and 2023–2024. The findings reveal that most of these businesses have not provided all necessary information regarding their reporting of human capital or human development initiatives. The majority of businesses have mentioned the Human Development Initiative or Human Resources in passing in their Director Display, but they haven't gone into detail in chapters that are entirely devoted to this topic. Furthermore, the failure of the majority of the seven cement industry companies to include human capital in their yearly reports is disheartening. According to their corporate annual reports, the majority of businesses only covered one or two of the 15 categories we had predetermined. Notably, CONFIDCEM omitted any information on their human resources or human development initiatives.

There is no direct research on human capital reporting in the cement business. Chouhan et al. (2021) have identified sustainability reporting techniques. Chouhan et al. (2021) identified a significant disparity in the reporting of financial and non-financial sustainability parameters across Indian cement producers. These research results are consistent with our study findings.

Ceramic Sector Performance on Human Development and Capital Reporting

Table 9: Performance of ceramic companies in HDIRI

DSE Identification	Performance in %
FUWANGCER	0.00
MONNOCERA	0.00
RAKCERAMIC	41.67
SPCERAMICS	33.33
STANCERAM	0.00

Source: Determined and calculated by authors.

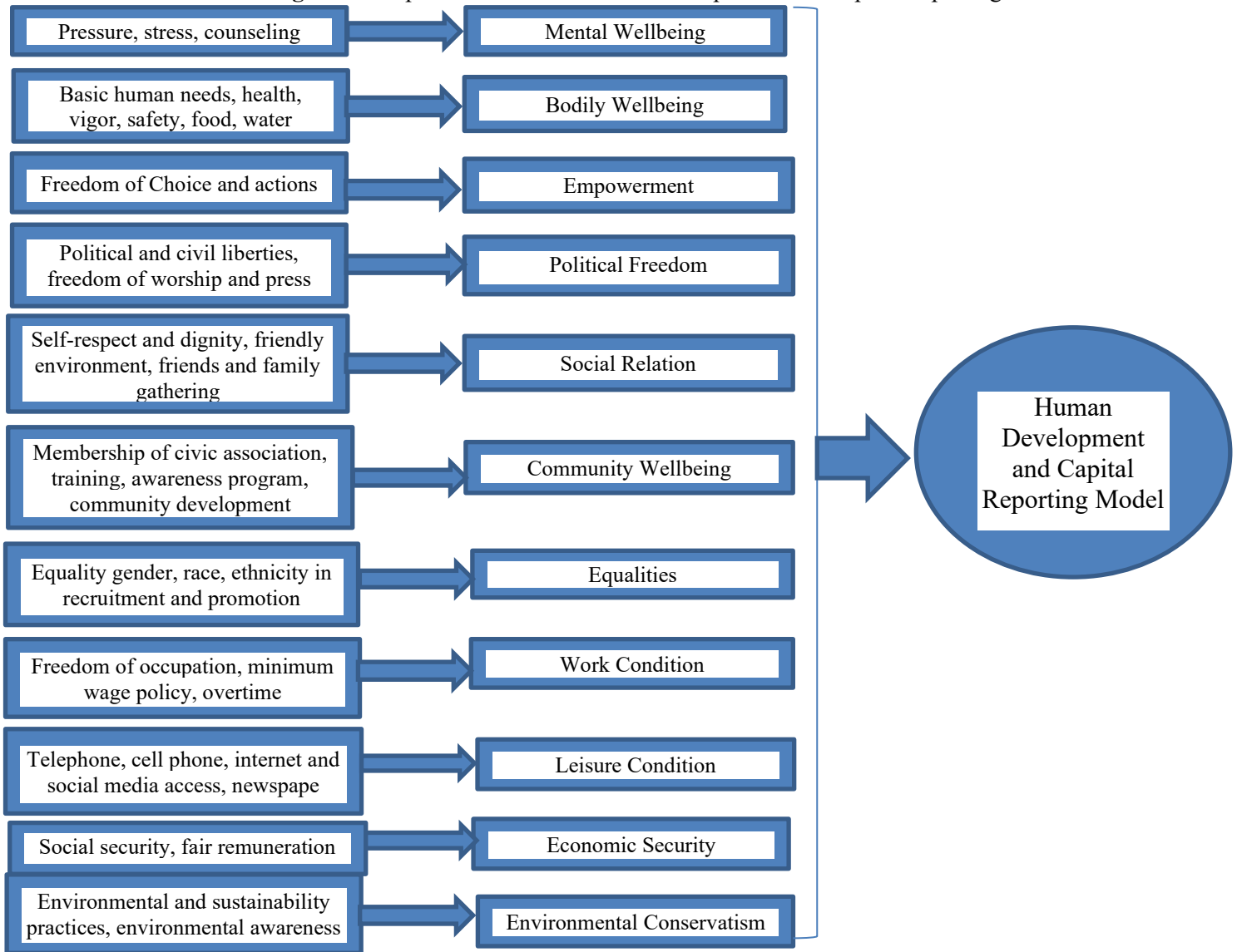
There are now five ceramics companies listed on the (DSE in Bangladesh. We collected the corporate annual reports of these five companies for the fiscal years 2020–2023 and 2023–2024 to do this study. The investigation's conclusions indicate that, in their annual reports, the vast majority of companies have not given human capital reporting, initiatives, or development any thought. In their annual reports to the shareholders of their respective companies, two businesses have discussed human resource management and human development plans.

Wickramasinghe and Fonseka (2012) demonstrated that there were sectoral disparities in the reporting of several HR measures. The majority of companies, regardless of industry, kept records on HR metrics in a manual format. Wickramasinghe and Fonseka (2012) demonstrated Three primary problems that impede the measurement and reporting of human resources were recognized as "Inadequate resource allocation," "Deficiency in knowledge regarding human resource measurement and reporting," and "Adverse effects on the organization." Likewise, our research results revealed a considerable disparity in human development and capital reporting across the banking, cement, and ceramic industries.

O'Donnell et al. (2009) challenge the need for industry-specific human capital reports, considering that the value drivers of human capital differ within business sectors. In the knowledge-intensive biotechnology sector, there may be justification for concurrent types of information dissemination from Boards to markets: technical updates, financial reports, and human capital developments. Likewise, our analysis determined that the banking industry outperforms the cement and ceramic industries in terms of human development and reporting. The primary causes for such differences are the dissemination of knowledge and the apprehensions of stakeholders. Specifically, Bangladesh Bank serves as the principal regulatory body for the banking industry in Bangladesh, consistently issuing and overseeing banks' sustainability reports. In contrast, no equivalent agency exists for the cement and ceramic industries in Bangladesh.

Human Development and Capital Reporting Model

Proposed Framework (figure1) for "Human Development and Capital Reporting" Table 6 thoroughly presents all twelve issued items. The authors have developed this 'Human Development and Capital Reporting' model based on existing literature. When an organization is dedicated to all aspects of human development, it positively influences the growth of organizational human capital in Bangladesh, thereby benefiting the national economy and human development policy.

Figure 1: Proposed Model of Human Development and Capital Reporting

Conclusion

Human development is one of the primary obstacles to achieving the SDGs on time. Additionally, human capital reporting is essential to corporate sustainability. Most of the focus is currently dedicated to the organizational perspective, particularly regarding attitudes toward human development as well as human resources reporting and management. Human development and capital reporting and management plans are essential to achieving the SDGs and ensuring the country's success. Annual reports failed to highlight human development and reporting efforts, according to our research. Some corporations in these three sectors cannot completely incorporate human development and reporting in their corporate annual reports, but most banks can. Most banks acknowledge the importance of human development and have established thorough human capital reporting, which is impressive. Human development and capital reporting were lacking in the cement and ceramic industries' annual reports. Most firms do not provide in-depth lectures. Human development and capital reporting are lacking in Bangladesh. Bangladeshi companies have not disclosed their human capital's financial

value, workforce age and education, whistleblowing and trade union policies, employee turnover, employees with disabilities, the human resources department, and child labor.

Policy Implications

Bangladesh will be less dependent on other countries for staff if Bangladeshi businesses can successfully turn its people into human resources. Organizations may use the model for human development activities and human capital reporting. Due to a severe lack of effective workflow in the business sector, Bangladesh hires foreign workers for these roles, resulting in a decrease in foreign remittances. By properly managing human development and reporting on human capital, the organization may be able to play a significant role in this issue from an organizational perspective. In this regard, this study's findings could be used. This research underscores the significance of addressing human capital reporting. The measures used by other nations, which have achieved notable advancements in this field, are essential to guaranteeing an organization's long-term viability. In this regard, this study's findings could be used. Human capital reporting is a common practice in most industrialized countries, and it directly contributes to a business's sustainability and financial success. Existing research reveals a direct and favorable correlation between an organization's financial success and its human capital reporting and development programs. Accordingly, this study could help in properly handling human capital reporting to improve the financial performance of enterprises. Lastly, to achieve overall organizational sustainability, this study will provide some opportunity to strengthen human development and human capital reporting methods.

Limitations and Future Research

In the future, researchers will have the opportunity to evaluate the existing situation of human capital reporting within the context of its corporate measurements.

Declaration

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