INTERNATIONAL JOURNAL OF ECONOMICS AND FINANCE STUDIES
Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102
Received: 11.07.2022 | **Accepted:** 22.11.2022 | **Published Online:** 01.12.2022

-RESEARCH ARTICLE-

IMPACT OF TECHNOLOGICAL ORIENTATION ON SUSTAINABILITY FINANCIAL INCLUSION AND ECONOMIC GROWTH: ROLE OF ENVIRONMENTAL CSR STRATEGY

Mao Ningning

Ph.D. of Economics, Department of Economics, Sejong University, Seoul, South Korea
E-mail: jiecaixiaozhongzi@gmail.com

Zhang Mengze (Corresponding Author)

Assistant Professor, Department of Economics, Sejong University, Seoul, South Korea
E-mail: zhangmengze@naver.com

─Abstract─

Introducing innovative investment strategies has primarily determined the competition between financial institutions. If this objective is to be attained, it is vital to identify the crucial components that enable financial institutions to fulfill their role in promoting economic expansion. In light of this, the objective of this study was to determine the impact that a technological orientation plays in financial inclusion and sustainability. The population group to focus on is the labor force employed by China-based financial companies. Smart PLS was utilized to conduct partial least square structural equation modeling on the 362 respondents' data. According to the study's findings, a technological focus has a positive and significant effect on both long-term viability and broad financial access. In addition, it has been established that a technical orientation significantly affects environmental corporate social responsibility, which ultimately leads to sustainability and financial inclusion. In addition, research has demonstrated that environmental corporate social responsibility has a significant role in mediating the relationship between the technical orientation of financial institutions and their capacity

Citation (APA): Ningning, M., Mengze, Z. (2022). Impact of Technological Orientation on Sustainability Financial Inclusion and Economic Growth: Role of Environmental CSR Strategy. *International Journal of Economics and Finance Studies, 14* (04), 19-44. doi:10.34111/ijefs. 20220102

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

to remain sustainable and incorporate more people into the financial system. This study contributes to the current body of knowledge due to its illuminating findings. This study enlightens financial institutions regarding how implementing technology may transform an organization's emphasis through forming a strategic partnership with a better-positioned potential business.

Keywords: Mergers and acquisitions, Economic growth, Sustainability, Environmental corporate social responsibility, Financial inclusion

1. INTRODUCTION

In recent decades, the impact of foreign expansion, notably in the form of acquisitions, has grown considerably (Pervan et al., 2015). In recent years, mergers and acquisitions have significantly increased in importance and value. Several studies have determined that mergers and acquisitions have a favorable effect on a firm's success, whereas others have found that this effect is neutral or even negative (Pervan et al., 2015). Mergers and acquisitions are utilized for purposes beyond financial gain. Mergers and acquisitions are excellent techniques of transformation and adaptation for firms, allowing them to acquire new abilities, combine cultures, and adjust to the increasingly competitive and organizational procedures of the present day. Due to the increased strategic significance of environmental concerns for firms, mergers and acquisitions appear to be more intertwined with sustainability goals (Vastola et al., 2021).

The trend mentioned above is supported by acquisitions of environmentally and socially proactive businesses by large corporations, such as the acquisition of Ben & Jerry's by Unilever or Tom's of Maine by Colgate (Austin et al., 2008; Mirvis, 2008), and by organizational data demonstrating the incorporation of ecological sustainability into corporate activities (Tampakoudis et al., 2020). Sustainability and mergers and acquisitions have recently been the subject of management research. The majority of the reviewed research has focused on the relationship between corporate sustainability and conventionally dependent factors such as post-acquisition effectiveness, product value, and unpredictability (Aktas et al., 2011; Arouri et al., 2019; Bettinazzi et al., 2017; Tong et al., 2020). Another expanding body of research has investigated the long-term effects of acquisitions, revealing both positive and negative outcomes, such (Berchicci et al., 2017).

This study focuses primarily on the technical orientation of enterprises to improve their competitiveness for sustainability and financial participation in the system of mergers and acquisitions, which would ultimately boost their economic growth. Due to the importance of solving global environmental concerns such as climate change, environmental sustainability has attracted significant attention. Moreover, the importance of new product development has grown for any company that hopes to survive in today's competitive economy (Leng et al., 2015). On the other hand, sustainability-related practices and a technology-oriented strategy necessitate a significant expenditure of resources, which must be guaranteed to affect the firm's economic performance. Companies are challenged to tap into their employees' creative

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

and entrepreneurial potential by encouraging the production of valuable items or services that benefit both the company and the environment (Lei et al., 2019).

In the previous 40 years, there has been no consensus on whether the relationship between environmental corporate social responsibility (CSR) (Ameer et al., 2012) and financial performance is positive, negative, U-shaped, inverted U-shaped, or inconsequential (Aupperle et al., 1985; Grewatsch et al., 2017; Hart et al., 1996; Lankoski, 2008). Even though these investigations have been conducted in several instances, it is difficult for management to decide whether or not to adopt sustainability initiatives (Surroca et al., 2010). Similarly, while the idea that technology is a factor of market success is widely acknowledged in the literature, the conditions under which a company's technological orientation leads to improved performance are yet unknown (Zahra et al., 2000). Corporate social responsibility (CSR) has garnered considerable attention from academics and businesses in recent years. The expansion of CSR has been included in the shared vision of successful firms, with CSR being recognized as a sustainable development strategy to benefit society and bolster their competitive advantages.

During the three months preceding September 2022, the Chinese economy grew at an annualized rate of 3.9%, more significant than the market consensus expectation of 3.5%. This was a shift from the 2.7% quarterly decrease initially recorded. This was the quickest quarterly growth rate since the second quarter of 2020, driven by a series of policies and economic stimuli from Beijing. Since the second quarter of 2020, this was the fastest quarterly growth rate. Despite the upswing, the Chinese economy still faces severe domestic and international problems on multiple fronts. These hurdles include the COVID-zero plan, a deceleration in exports, a continuing property crisis, and the prospects of a global downturn due to the leading central banks' tightening course. In addition, the economy grew by 3.9% annually during the third quarter, accelerating from 0.4% during the previous period and bringing the year-to-date growth rate to 3%.

As a result, businesses are incorporating environmental protection into CSR, which allows them to enhance output while avoiding waste and emissions (C. H. Chang, 2016; Flammer, 2013; Marin et al., 2017). The growing study has investigated the factors that motivate corporations to engage in environmental corporate social responsibility (ECSR) and their impact on corporate performance. ECSR plays a crucial role in the connection between businesses and the natural environment, fostering trust between enterprises and their external consumers and enabling firms to keep a competitive edge (Avotra et al., 2021; Nawaz et al., 2022). Environmental planning is elevated to the level of a CSR component as a result of the preceding, garnering the interest of academic and commercial communities. Environmentally sustainable development has become a tool for businesses to achieve a competitive advantage while also exhibiting the environmental stewardship expected by modern society (Bansal, 2000; Kim et al., 2017; Knight et al., 2019; Xu et al., 2018; Zhou et al., 2019).

Due to their limited cognitive capacities, businesses do not always choose one orientation over another, making it difficult for them to pursue multiple high-level objectives simultaneously. In addition, previous cognitive research exploring the effects of diverse management cognition content and organization on sustainability is limited. In addition, from a resource standpoint, sustainability efforts and a technology-focused approach require substantial resource investments (Huo et al., 2021). Therefore, the study is required to assess whether adopting technology orientations is conducive to the sustainable economic success of a company. By ensuring financial inclusion, a more inclusive society is formed. Expanding information technology in the economy generates many academic business and economic studies (Alter et al., 2015; Ozili, 2021; Sassi et al., 2013). In recent years, interested parties (such as politicians and academics) have viewed the expansion of digital financial services as a potential route to financial inclusion. Technology's acceptance and application may influence daily financial processes, hence contributing to a society's economic development.

Financial inclusion appears to be a potentially revolutionary force in many emerging nations, with the capacity to alleviate poverty and create a more economically inclusive society (Aziz et al., 2021; Sassi et al., 2013). Few attempts have studied the possible drivers and limitations of technology solutions for financial inclusion, despite the considerable expansion of the financial company as a whole. Although the concept of technologically driven financial inclusion has been researched in the literature, the underlying challenges of technology orientation and social integration in breakthroughs in digital banking have remained largely unexplored. Prior studies have also examined the significance of the internet and mobile financial initiatives in developing nations (Mushtaq et al., 2019; Yesmin et al., 2019). Yesmin, for example, examines how the technological, financial sector and mobile banking are developing new business phenomena and their market penetration strategy in emerging nations (Yesmin et al., 2019).

According to a recent study based on country laws on information technology, the concept of technologically-driven financial inclusion is conspicuously absent from official digital initiatives and policy objectives (Aziz, 2020). Consequently, it is unknown if technologically focused financial technologies or technical operations enhance financial inclusion in the context of an organization's economic growth, leaving a gap in management research. In this context, we provide a comprehensive paradigm that underpins both the current conversation on technology orientation and its role in financial inclusion in a world that is becoming increasingly digitalized. Therefore, issues emerge as to whether technology orientation has any bearing on the viability of businesses. In terms of economic growth, another question arises: Does enterprises' technology orientation influence their financial inclusion? To answer these concerns, this study aimed to determine the impact of technology orientation on the sustainability and financial inclusion of enterprises from the standpoint of economic growth. This study also attempted to determine the effect of environmental CSR as a mediator between technical orientation and financial inclusion and sustainability.

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

The subsequent section 2 explained the variables' literature review. The third section describes the study's methodology. The results of the data analysis are given in section 4, and the study's conclusion and recommendations are discussed in part 5.

Definition of Key Terms

Variable	Definition
Technological Orientation	The term "technological orientation" refers to the propensity or routine of looking for ways to broaden one's skill set and make greater use of technology-based resources and applications.
Sustainability	Sustainability entails addressing our needs without jeopardizing future generations' potential to do the same.
Financial Inclusion	Individuals and businesses are considered to have access to valuable and affordable financial products and services that meet their needs if they have financial inclusion. These products and services can include transactions, payments, savings, credit, and insurance and must be delivered responsibly and sustainably.
Environmental CSR strategy	Environmental corporate social responsibility works to lessen the negative impact that a company's operations have on the surrounding environment. Utilization of energy might be a focus of the activities.

Theoretical Foundation and Development Of Hypotheses

This study employs a contingency method to assess technological orientation's impact on sustainability and financial inclusion. The concept arose in response to criticism that conventional management theory ignored contingency considerations. Both scientific management and bureaucracy theories acknowledge the overvaluation of internal organizations (Pheng et al., 2011). The central tenet of contingency theory is that organizations function efficiently when their organizational structures are suited for coping with the uncertainties imposed by their size, technology, and environment (Clegg et al., 1996). It is thought that mergers and acquisitions are the external variables that contribute to the competitive growth of businesses. The objective of contingency theory is to determine how organizations might align their future results with their external and internal business settings (Homburg et al., 2012). External settings, such as mergers and acquisitions, are crucial to economic growth and corporate sustainability.

As organizations, businesses are sensitive to the effects of the business environment. The theory examines whether or under what circumstances contingency variables can contribute to sustainability. Therefore, firms must acquire and expand their capabilities and enhance their ability to deal with environmental unpredictability (Pratono, 2016). Contingency-based companies are firms that deal with entrepreneurial challenges, choose a product market area to deal with entrepreneurial problems, choose innovation

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

to deal with engineering problems, and minimize unpredictability to deal with administrative problems (Puranam et al., 2014). General contingency variables include the implementation technique, organization structure and scale, and information management (Jääskeläinen et al., 2012). In this study on mergers and acquisitions, technological orientation was viewed as a driver of sustainability and financial inclusiveness as a contingent factor for enterprises.

The idea of financial inclusion in competitive marketplaces is derived from social policy and economic development theory (Collins, 2003; Sandell, 1998). Financial inclusion gives prospects for development and advancement while addressing difficulties of exclusion in terms of overall socioeconomic improvement (Collins, 2003; Paramasivan et al., 2013). Exclusion, whether social or financial, impedes growth and jeopardizes the fundamental well-being of people and society. Despite efforts to enhance financial inclusion, a sizeable portion of the population remains financially excluded, lacking access to formal banking institutions, social equality, equitable education, and inexpensive health care (Kanungo et al., 2021). Technological orientation can assist financial inclusion by bringing underserved segments of society closer to the standard socioeconomic platform (Ozili, 2018). By linking the conventional supply and demand sides of socioeconomic offerings, financial inclusion as a platform for digital transformation expands the growth space (Rasheed et al., 2019). Therefore, this approach offers some insights regarding financial inclusion.

1.1 Technological Orientation, Sustainability, and Financial Inclusion

A substantial amount of money has been and continues to be spent on technical orientation (TO). TO has been characterized as an organization's level of dedication to research and development, and for this reason, firms purchase and implement the latest technologies. In the context of mergers and acquisitions, this study employs this aspect of TO for the organization's long-term viability and financial inclusion. A substantial chunk of this expenditure is predicated on the belief that satisfactory returns will follow. Customers want highly innovative items (Gatignon et al., 1997). These companies invest in research and development, actively acquire new technologies, and utilize innovative manufacturing technologies (Voss et al., 2000). Therefore, a technology-oriented corporation "has the potential and motivation to acquire a substantial technological base and apply it to the creation of new products" (Gatignon et al., 1997). As a result of their commitment to R&D and the application of cutting-edge technologies, technology-driven businesses can develop new technological solutions and offer innovative, high-end products to satisfy customer demands (Hao et al., 2020). Consequently, technology-oriented businesses have a competitive advantage in terms of technological leadership and differentiation, which may result in a competitive advantage.

When rapid technological advancements characterize the market, the value and impact of older technologies degrade rapidly. Organizations should contribute significantly to technological development, test new technologies, and employ innovations to mitigate risk. Alternatively, they will be forced out of the market as technology becomes

progressively obsolete (Lin et al., 2020). As a result of the emphasis on technological orientation, the importance of market orientation should be diminished. Firms with low technical uncertainty compete based on market orientation, whereas those with high technological ambiguity compete based on technological superiority (Caballero-Morales, 2021). Few academics examined the effect of technology orientation on the success of new product innovation. They discovered that organizations with a high technology orientation are more likely to develop new products and services (Al-Ansaari et al., 2015).

However, compared to market orientation, research has paid less attention to the direct relationship between technology orientation and corporate sustainability, and correlations between the two factors remain ambiguous (Al-Ansaari et al., 2015). Sustainability is evaluating businesses based on activities that do not affect natural resources. Some researchers asserted that a company's level of technology orientation positively correlates with its innovation performance; nevertheless, the findings of Voss et al. (2000)'s study did not support the link between technology orientation and organizational profitability. Using a sample of SMEs, some researchers discovered that technology orientation harms a company's sustainability (Lee et al., 2015). Similarly, the significance of financial inclusion as an indicator of company competitiveness has been explored across multiple platforms. Recent studies have demonstrated a correlation between the strategic orientation of businesses and financial inclusion (Nguli et al., 2020).

Another aspect of technical orientation researched earlier is financial technology orientation, and its impact on organizations' financial inclusion has been evaluated (Mende et al., 2020). For the sake of this research, financial inclusion was conceptualized as an endeavor to make financial services and products available to organizations that match their needs. By ensuring financial inclusion, a more inclusive society is formed. The expansion of information technology in the economy has attracted great academic interest in business and economics (Alter et al., 2015; Ozili, 2021; Sassi et al., 2013). The role of technology orientation in banking sectors has been extensively studied in the past, suggesting that technological orientation may play a role in the financial inclusion of firms. To promote inclusive growth with equity, businesses must have a technological orientation for cost-effective innovation, such as bank accounts, juncture technology, mobile banking, and ATMs. Through technology, retail agents, such as post offices, provide financial services outside the branches of traditional financial institutions. Based on the relevance of these associations, the following hypotheses were formulated.

H_1: Technological orientation has a significant and positive impact on sustainability

H_3: Technological orientation has a significant and positive impact on financial inclusion

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

1.2 Technological Orientation and Environmental CSR

Potocan (2021) provides the opportunity to research the effect of technical orientation on the environmental element of corporate social responsibility. Previously, the impact of technological orientation on corporate social responsibility has been studied and yielded substantial results. As part of their environmental responsibility studies, scientists have carefully considered the right functioning and conduct of organizations that represent the most visible issues in contemporary culture and have the most significant ecological footprint (Carroll, 1999). With CSR, scientists aimed to reconcile firms' need to create profits for shareholders with their desire to maintain natural, social, and economic surroundings, culminating in establishing an environmentally sustainable strategy (Glavas, 2016). In contemporary culture, environmental protection is widely acknowledged, highly valued, and increasingly normatively supported, emphasizing future environmental protection by minimizing the utilization of limited accessible natural resources and eradicating past ecological destruction (Glavas, 2016). Consequently, the wise use of technology has become a crucial factor in recent years, and we therefore, presented the following hypothesis.

H_2: Technological orientation has a significant and positive impact on environmental CSR strategy

1.3 Environmental CSR Impacts and its Mediating Role

Rahman et al. (2012) provided essential insights into the nature of environmental CSR. Environmental corporate social responsibility is a multifaceted term that relates to corporate management, sustainability, and firm performance. In this context, environmental CSR has been interpreted as the responsible operation of business processes for environmental gain. Researching the environmental implications of CSR is motivated by the fundamental implementation of sustainable business practices. Environmental shielding and sustainable business practices are supposed to adhere to a continuous strategic orientation (Fernandes et al., 2017). Environmental CSR has also been proven to have the potential to provide firms with a competitive advantage (Rahman et al., 2012). Environmental CSR may be monitored and implemented efficiently to ensure long-term operational competitiveness. To retain commercial competitiveness, businesses are focusing increasingly on long-term green projects (Chuang et al., 2015). Environmental CSR is anticipated to substantially impact organizational sustainability, which is defined as the enhancement of social and economic systems while considering environmental concerns (Ugoani, 2019). Without jeopardizing the investment of the next generation, this strategy has been deemed essential to the company's success (Boudreau et al., 2005).

Due to growing government and environmental protection group focus, corporations today face more significant pressure to protect the environment (Berry et al., 1998; Darnall et al., 2010; Hart, 1995). Individuals have greater expectations for sustainability due to rising environmental constraints and associated interests (Darnall et al., 2010). To demonstrate their commitment to environmental sustainability, corporations should

Vol: 14 **No: 0**4 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

develop environmental projects. Several researchers examined the factors that drive business engagement in ECSR and their impact on corporate performance (Barnett et al., 2006; Kassinis et al., 2002). Specifically, environmental CSR projects inspire. Appropriate CSR practices may improve a company's financial performance. Positive attitudes and a solid commitment to pollution reduction and environmental preservation have helped businesses establish a positive reputation and image, as well as increase their competitive advantage (Ateş et al., 2012; Darnall et al., 2010; Porter et al., 1995; Pujari et al., 2004). As a result, we concluded that ECSR, as a subset of CSR, is crucial for both business and the environment (Kim et al., 2017).

As the number of regulatory requirements increases, businesses have learned that successful green products can help them get benefits and advance toward sustainable environmental growth (Bernal-Conesa et al., 2017; Chen et al., 2013). Environmental activities, such as the production of sustainable goods and practices, improve the environment while prolonging businesses' lifespan and fostering more public accountability (Dayan et al., 2019). Despite the abundance of publications released in recent years, many misconceptions exist about environmental CSR. In recent years, environmental issues have received considerable attention. "Enterprises in wealthy nations may face higher environmental and natural resource management requirements" (Wang et al., 2016). Environmental CSR appears to be an absolute necessity. Furthermore, to advocate for environmental CSR, it is essential to quantify its outcomes (Nie et al., 2019). Environmental CSR has also been researched as a mediator (T.-W. Chang et al., 2020).

As stated previously, if environmental CSR were merely a cost item in a company's strategy, it would be difficult to explain why firms are so engaged in activities unrelated to their primary objective. Consequently, a clean approach to measuring the impact of environmental CSR on a company's financial sustainability and financial inclusion must consider the potential incidental impact (positive externality) of implementing environmental CSR (Ben-Amar et al., 2021). Therefore, environmental CSR is likely to have positive and negative effects on a company's long-term viability and financial inclusion. A crucial step in any practical design should be the exhaustive selection of the independent variables, such as technical orientation, that have this positive effect. Because environmental CSR has already been utilized to determine the direct effect regarding the cost concept of CSR, it appears that the only way to determine the positive effect is through another parameter correlated to the company's financial sustainability and inclusion, which is impacted by environmental CSR (Lioui et al., 2012). The current study proposes that environmental CSR be regarded as an influencer of sustainability and financial inclusion and a mediator.

H_4: Environmental CSR strategy has a significant and positive impact on sustainability

H_5: Environmental CSR strategy has a significant and positive impact on financial inclusion

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

H_6: Environmental CSR strategy mediates the relationship between technological orientation and sustainability

H_7: Environmental CSR strategy mediates the relationship between technological orientation and financial inclusion

Based on the above literature and hypotheses, the following conceptual model (figure 1) has been formed.

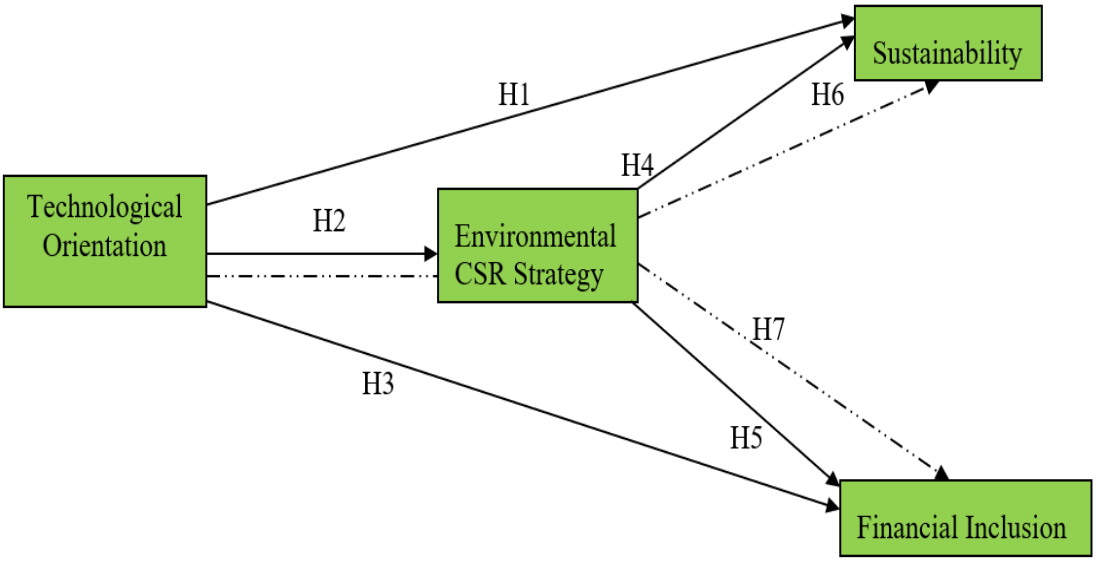

Figure 1. Conceptual framework

2. METHODOLOGY

To measure the contribution of independent factors to respective dependent variables, the positivist research methodology has been incorporated in light of the aims of the present study. To conduct the study, behavioral variables were quantified using a quantitative research approach. A deductive procedure is applied to validate the proposed hypothesis in which the broad variables are condensed into hypotheses. To achieve these results, partial least square structural equation modeling was employed. This study's population comprises Chinese mainland employees of corporate entities formed due to mergers and acquisitions (Ahluwalia et al., 2021; Strobl et al., 2022). Because the present study investigates the effect of technology orientation on the long-term viability and financial inclusion of such merging firms, they have been chosen as a subject. The selection of participants is based on the convenience sampling method. It is the most often employed sampling technique because of its cost-effectiveness and respondents' simple accessibility (Hashmi et al., 2014). In addition, convenience sampling allows the researcher to collect data in an available time frame because respondents are available at the researcher's leisure (Nawaz et al., 2022). Since the data were collected at a particular time, a cross-sectional technique for data gathering was utilized. The researcher approached potential study participants, requesting permission

to contact them at convenient times. In addition, respondents' consent to their voluntary involvement was obtained as part of the research's ethical requirements. To avoid confrontation with their employers, it was ensured that the respondents' anonymity would be maintained. The process for completing the questions was described in the cover letter accompanying each questionnaire. It also ensured the privacy of the obtained data, and its primary goal was the current study. The researcher has meticulously administered the data collection process to eliminate all evidence of social desirability and other researcher biases. As a result of data gathering, 361 out of 450 questionnaires were completed correctly, with a response rate of 80.6%.

2.1 Statistical Tool

The data for partial least square structural equation modeling were analyzed using intelligent PLS software. There are numerous reasons to utilize this statistical instrument. For example, it is just as robust with extremely tiny data sizes as big data (An et al., 2021). The data analysis is separated into two primary steps based on the generated results. First, a measurement model is computed to assist the researcher in validating and assessing the dependability of the acquired data. This is performed as a preliminary screening approach for the final data analysis completed in the second step, i.e., the structural model. The structural model evaluates the hypotheses based on the data filtered during the measurement phase. Using t-statistics, p-values, and β-values assists the researcher in deciding whether to accept or reject the hypotheses based on the data's level of support.

2.2 Measurement

The measuring scales for the variables included in this investigation were derived from previous research. The variable technical orientation scale comprised of five components, such as technological necessity and required budget, is available, and (ii) the relative value of acquisition relative to other products and services has been determined. This scale was derived from (Fartash et al., 2018). The sustainability-dependent variable included six elements linked to (i) energy efficiency decrease and (ii) risk and environmental hazard reduction. The scale has been modified from (Bernal-Conesa et al., 2017). The second dependent variable of financial inclusion included five components about (i) credit facilities and (ii) borrowing behavior patterns. The scale has been modified from (Singh et al., 2021). Six elements comprised the environmental corporate social responsibility mediating variable. The sample items are (i) enhanced resource optimization and (ii) increased environmental protection efforts. The scale has been modified from (Bernal-Conesa et al., 2017).

Frequencies and percentages were utilized to examine the data collected from the respondent's demographic profiles (see table 1). This evaluation is based on the employee's age, gender, and management degree. As the target population is financial institution employees, these categories have been included. The age of the respondents has been categorized into four groups. The most significant proportion of responders were aged 41 and older. Regarding gender, the most significant proportion of

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

responders, 197, were female. Regarding management level, the majority of respondents, 201, belong to middle management.

Table 1. Demographic Profile

Demographic Variable	Characteristics	Frequency	Percentage (%)
Age (Years)	20-30	32	8.83
	31-40	121	33.42
	41 and above	209	57.73
	Male	164	45.30
Gender	Female	197	54.41
	Top	62	17.12
Management Level	Middle	201	55.52
	Lower	99	27.34

N=362

3. DATA ANALYSIS AND RESULTS

3.1 Measurement Model

The present investigation was conducted using Smart PLS software and variance-based structural equation modeling. Using composite reliability and Cronbach alpha, the dependability and validity of the employed variables were examined (see figure 2 and table 2). In contrast, discriminant validity (HTMT Ration and Fornell and Larcker Criteria) and convergent validity (variance inflation factor, average variance extracted, and factor loadings) were examined.

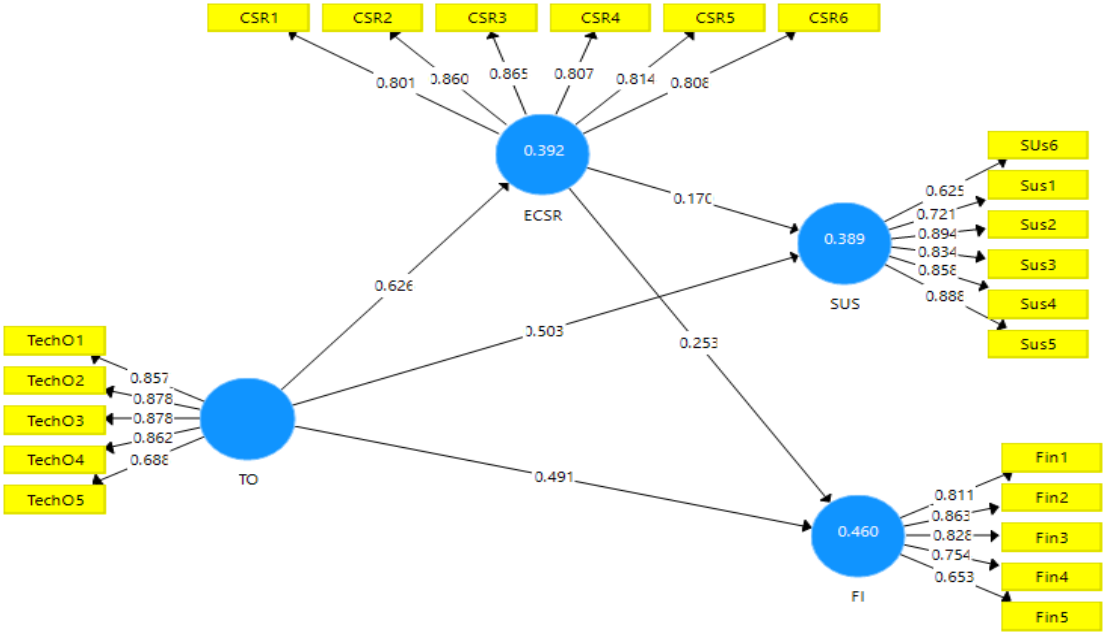

Figure 2. Measurement Model

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

TO=Technological orientation, ECSR=Environmental corporate social responsibility, SUS=Sustainability, FI=Financial Inclusion

According to Jordan et al. (2019), for convergent validity, the factor loadings must be more than 0.5. In this study, all factor loading values are more significant than 0.5, as shown in Table 2. In addition, the literature indicates that AVE exceeds fifty percent (Dash et al., 2021). The current investigation demonstrates that variance is better explained than all variables' errors. In addition to convergent validity, Cronbach alpha and composite reliability are considered more significant than 0.70 for future usage of the same variable to provide the same findings (Hwang et al., 2018). The current study demonstrates a minimum composite reliability of 0.88 and a minimum Cronbach alpha value of 0.84, meeting the approval criteria.

Table 2. Model Measurement

Construct/ Indicators	Loadings / Alpha	Composite Reliability	AVE	VIF
Environmental CSR	0.908	0.928	0.683	
CSR1	0.801			2.794
CSR2	0.860			3.070
CSR3	0.865			3.765
CSR4	0.807			2.515
CSR5	0.814			2.309
CSR6	0.808			2.440
Financial Inclusion	0.842	0.888	0.616	
Fin1	0.811			1.931
Fin2	0.863			2.782
Fin3	0.828			2.338
Fin4	0.754			1.656
Fin5	0.653			1.437
Student Engagement	0.890	0.918	0.655	
SUs1	0.625			1.274
Sus2	0.721			1.505
Sus3	0.894			4.211
Sus4	0.834			2.730
Sus5	0.858			3.480
Sus6	0.888			4.089
Teachers Self Efficacy	0.890	0.920	0.699	0.890
TechO1	0.857			2.573
TechO2	0.878			2.842
TechO3	0.878			2.741
TechO4	0.862			2.648
TechO5	0.688			1.450

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

In addition to convergent validity, discriminant validity was utilized in the present investigation. In the present study, the discriminant validity was assessed using the Fornell and Larcker criteria and the HTMT (Heterortrait-Monotrait) ratio. Fornell and Larcker's criteria indicate significance if the value at the top of each column is greater than the values in the remaining columns (Fornell et al., 1981). The present study's most significant values are located in the bolded columns. The outcomes are shown in table 3.

Table 3. Discriminant Validity (Fornell and Larcker Criteria)

	ECSR	FI	SUS	TO
ECSR	0.826			
FI	0.560	0.785		
SUS	0.485	0.608	0.809	
TO	0.626	0.649	0.609	0.836

TO=Technological orientation, ECSR=Environmental corporate social responsibility, SUS=Sustainability, FI=Financial Inclusion

The heterotrait-Monotrait ratio is another statistical test used to examine the discriminant validity of the scales. Indicating the relevance of the HTMT ratio, the table displays values smaller than 0.85 (Franke et al., 2019). The HTMT ratio data are shown in table 4.

Table 4. Discriminant Validity (HTMT Ratio)

	ECSR	FI	SUS	TO
ECSR				
FI	0.621			
SUS	0.510	0.692		
TO	0.688	0.743	0.671	

TO=Technological orientation, ECSR=Environmental corporate social responsibility, SUS=Sustainability, FI=Financial Inclusion

In this study, the model fit has been measured with the help of f-square, r-square, and q-square statistics. F-square values indicate how strong the effect of independent variables on dependent variables is. The strength of the f-square has been categorized as weak, moderate, and strong. The f-square <0.02 falls in weak effect, 0.02<f-square<0.15 falls in moderate effect, and above 0.35 falls in strong effect (Hair Jr et al., 2021). In the present study, the strongest effect size has been found between technological orientation and environmental CSR (f-square = 0.64), followed by financial inclusion (f-square = 0.27) and sustainability (f-square = 0.25). Moreover, weak effect sizes have been found between environmental CSR and financial inclusion (f-square = 0.072) and sustainability (f-square = 0.029). Furthermore, the r-square indicates how well the regression line fits in the mean (Archer et al., 2021). In the present study, financial inclusion showed 46% variance in the model, environmental CSR showed 39.2%, and sustainability showed 38.5%. q-square indicates the variable's predictive relevancy and

Vol: 14 **No:** 04 **Year:** 2022 **ISSN**: 1309-8055 (Online) (**pp.** 19-44) **Doi:** 10.34109/ijefs. 20220102

is said to be above zero to show significance (Benitez et al., 2020). In the present study, all variables have shown a q-square value of above zero, i.e., environmental CSR (q-square = 2.63), financial inclusion (q-square = 2.42), and sustainability (q-square = 0.22).

3.2 Structural Model

The structural model obtained in the second analysis used the bootstrapping technique with the 5000 subsampling method at 95%. The structural model is used in the study to check the acceptance or rejection of the hypotheses based on t-statistics (>1.92), p-value (<0.05), and beta value for the direct and indirect effect. The output for the structural model is presented in figure 3.

Please insert Figure 3 here

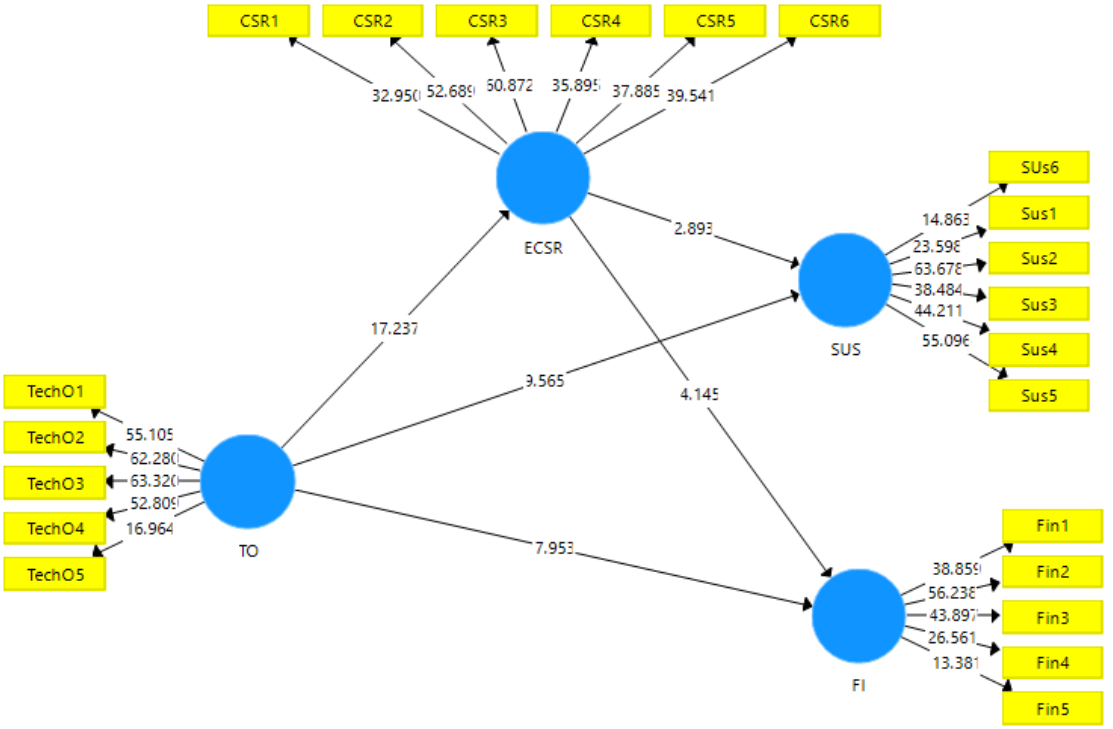

Figure 3. Structural Model

TO=Technological orientation, ECSR=Environmental corporate social responsibility, SUS=Sustainability, FI=Financial Inclusion

Technological orientation affecting sustainability represents the first accepted hypothesis, showing a β = 0.504, t>1.92, and p<0.05. Technological orientation shows a significant effect on environmental CSR (β = 0.625, t>1.92 and p<0.05) and financial inclusion β = 0.491, t>1.92 and p<0.05), thus accepting H2 and H3. The fourth and fifth hypotheses of the study showing an effect on sustainability (β = 0.172 t>1.92 and

p<0.05) and financial inclusion (β = 0.253, t>1.92 and p<0.05) have been accepted. Results of the direct effects have been presented in table 5.

Table 6 shows the indirect effects of the study. The sixth hypothesis concerning the mediating role of environmental CSR between technological orientation and sustainability has been accepted (β = 0.10, t>1.92 and p<0.05). The seventh hypothesis concerning the mediating role of environmental CSR between technological orientation and financial inclusion (β = 0.15, t>1.92 and p<0.05), thus accepting the hypotheses.

Table 5. Direct Effects

Hypotheses	Beta	Standard Deviation	T Statistics	P Values
H_1: Technological orientation → Sustainability	0.504	0.053	9.565	0.000
H_2: Technological orientation → Environmental CSR	0.625	0.036	17.237	0.000
H_3: Technological orientation → Financial Inclusion	0.491	0.062	7.953	0.000
H_4: Environmental CSR → Sustainability	0.172	0.059	2.893	0.004
H_5: Environmental CSR → Financial Inclusion	0.253	0.061	4.145	0.000

Table 6. Indirect Effects

Hypotheses	Beta	Standard Deviation	T Statistics	P Values
H_6: Technological orientation → Environmental CSR → Sustainability	0.108	0.038	2.770	**0.006**
H_7: Technological orientation → Environmental CSR → Financial Inclusion	0.158	0.039	4.022	**0.000**

4. DISCUSSION

This paper makes a significant addition to the topic of corporate mergers and acquisitions for economic growth. This study's objective is to evaluate the effects of technology and its orientation for attaining organizations' sustainable growth and development, as well as their financial inclusion as an external competitive element of development. In recent years, mergers and acquisitions have significantly increased in importance and value. Several studies have determined that mergers and acquisitions have a favorable effect on a firm's success, whereas others have found that this effect is neutral or even negative (Pervan et al., 2015). The current study assessed the effects of technical orientation on enterprises' sustainability, financial inclusivity, and environmental corporate social responsibility. The results demonstrated that technology orientation directly impacts the long-term viability of businesses, as new technologies and their adoption in competitive marketplaces provide a competitive advantage over businesses that still rely on

conventional methods. The findings are consistent with other prior research on technology and sustainability (Lei et al., 2019).

The other direct implications of enterprises' technological orientation demonstrated their importance for financial inclusion, which is also a component of mergers and acquisitions. The outcome revealed that companies that were proactive in obtaining new technologies in a competitive environment had shown to be valuable contributors to their financial inclusion. Prior research has also examined the financial programs of internet and cellular carriers in developing nations (Mushtaq et al., 2019; Yesmin et al., 2019). Yesmin, for example, explained how the technological, financial sector, and mobile banking are creating a new economic phenomenon and their financial inclusion approach in developing countries (Yesmin et al., 2019). A recent analysis based on the information technology policies of countries revealed that the concept of technologically driven financial inclusion was notably absent from official digital initiatives and policy objectives (Aziz, 2020). In light of this, future research on financial inclusion through the adoption of technology inclusion would be guided by the findings of this study.

In this research, the relationship between technology orientation and environmental CSR was also investigated. Prior research on the effects of technological orientation on corporate social responsibility yielded many results (Potocan, 2021), providing the opportunity to investigate the effects of technological orientation on the environmental aspect of corporate social responsibility. In the past, however, there were very few investigations in this field. In modern society, environmental preservation is widely acknowledged, highly valued, and increasingly normatively supported, emphasizing future environmental protection by decreasing the consumption of scarce accessible natural resources and eradicating past ecological devastation (Glavas, 2016). The results demonstrated that if correct orientations are changed towards technology, it can also help the development of environmental CSR. The hypothesis regarding the relationship between environmental CSR and firms' sustainability and financial inclusion suggested that environmental CSR is just as important as CSR. They contributed significantly to the enterprises' sustainability and financial inclusion.

To comprehend the rationale behind these outcomes, one must realize that environmental CSR is a multifaceted topic related to corporate management, sustainability, and firm performance. Researching the environmental implications of CSR is motivated by the fundamental implementation of sustainable business practices. Environmental shielding and sustainable business practices are supposed to adhere to a continuous strategic orientation (Fernandes et al., 2017). (Rahman et al., 2012) contributed significantly to the nature of the subject of environmental CSR. Environmental CSR was adequately monitored and implemented to ensure long-term operational competitiveness, which led to these results. To retain their commercial competitiveness, businesses are focusing increasingly on sustainable projects that promote green culture (Chuang et al., 2015, 2018). Environmental CSR is anticipated to substantially impact organizational sustainability, which is defined as the enhancement of social and economic systems while considering environmental concerns (Ugoani,

2019). Without jeopardizing the investment of the next generation, this strategy has been deemed essential to the company's success (Boudreau et al., 2005).

The indirect benefits of environmental CSR suggested that direct linkages between enterprises' technical orientation, sustainability, and financial inclusion might increase with environmental CSR. Environmental CSR significantly moderates the links between technology orientation, sustainability, and financial inclusion. Despite organizational management's belief that spending on environmental CSR would not be advantageous, it was demonstrated that investing a reasonable amount of their revenues in environmental CSR would be beneficial rather than a factor of loss. As stated previously, if environmental CSR were merely an expensive component of a company's strategy, it would be difficult to explain why businesses are so interested in unrelated activities to their primary goal of maximizing profits. Consequently, a clean approach to measuring the impact of environmental CSR on a company's financial sustainability and financial inclusion must consider the potential incidental impact (positive externality) of implementing environmental CSR (Ben-Amar et al., 2021).

5. CONCLUSION

In recent years, mergers and acquisitions have significantly increased in importance and value. The present study has been conducted to comprehend the impact of technological orientation on businesses' sustainability and financial inclusion. Additionally, the mediating role of environmental corporate social responsibility has been examined to gain a deeper comprehension of the entire process. The study's results demonstrate the significance of technological orientation in achieving sustainability and financial inclusion. In addition, environmental corporate social responsibility has been identified as a significant mediator in the relationship between technical orientation as the independent variable and sustainability and financial inclusion as the dependent variables. In addition, the study provides financial institutions with several recommendations regarding their strategy for providing better financial products and services.

Additionally, the present study has limited practical consequences. This study provides financial institutions with an understanding of how adopting technology might alter an organization's direction by collaborating with a better potential organization. In addition, firms that provide financial services have the opportunity to contribute to sustainability and financial inclusion by engaging in environmental corporate social responsibility. In addition, the report recommends that firms update their operations with cutting-edge technology to provide clients with affordable and beneficial financial services and products.

The purpose of the present study is to examine the effects of technology and its orientation for attaining the sustainable growth and development of organizations, as well as their financial inclusion as an external competitive component of development. This study has contributed to the body of knowledge by highlighting the significance of financial institutions' technological orientation in giving superior financial services and

products to customers. In addition, it contributes to the literature by assessing the function of environmental corporate social responsibility as a mediator between technology orientation and overall sustainability.

Despite its practical consequences and theoretical advances, this work has several drawbacks. In the future, it will be necessary to examine potential contributors to organizational sustainability and financial inclusion, such as technical aspects such as technological acquisition, innovation, environment, and forecasting. In addition, the present study has only considered the environmental aspect of corporate social responsibility. However, future research is proposed to evaluate additional perspectives.

REFERENCES

Ahluwalia, S., & Kassicieh, S. (2021). Effect of Financial Clusters on Startup Mergers and Acquisitions. *International Journal of Financial Studies, 10*(1), 1. doi: https://doi.org/10.3390/ijfs10010001

Aktas, N., De Bodt, E., & Cousin, J.-G. (2011). Do financial markets care about SRI? Evidence from mergers and acquisitions. *Journal of Banking & Finance, 35*(7), 1753-1761. doi: https://doi.org/10.1016/j.jbankfin.2010.12.006

Al-Ansaari, Y., Bederr, H., & Chen, C. (2015). Strategic orientation and business performance. *Management Decision, 53*(10), 2287-2302. doi: https://doi.org/10.1108/MD-01-2015-0034

Alter, A., & Yontcheva, B. (2015). *Financial Inclusion and Development in the CEMAC* (Vol. 15): International Monetary Fund. Retrieved from https://books.google.ae/books?hl=en&lr=&id=CT8ZEAAAQBAJ&oi=fnd&pg

Ameer, R., & Othman, R. (2012). Sustainability practices and corporate financial performance: A study based on the top global corporations. *Journal of Business Ethics, 108*(1), 61-79. Retrieved from https://doi.org/10.1007/s10551-011-1063-y

An, H., Razzaq, A., Nawaz, A., Noman, S. M., & Khan, S. A. R. (2021). Nexus between green logistic operations and triple bottom line: evidence from infrastructure-led Chinese outward foreign direct investment in Belt and Road host countries. *Environmental Science and Pollution Research, 28*(37), 51022-51045. doi: https://doi.org/10.1007/s11356-021-12470-3

Archer, L., Snell, K. I., Ensor, J., Hudda, M. T., Collins, G. S., & Riley, R. D. (2021). Minimum sample size for external validation of a clinical prediction model with a continuous outcome. *Statistics in Medicine, 40*(1), 133-146. doi: https://doi.org/10.1002/sim.8766

Arouri, M., Gomes, M., & Pukthuanthong, K. (2019). Corporate social responsibility and M&A uncertainty. *Journal of Corporate Finance, 56*, 176-198. doi: https://doi.org/10.1016/j.jcorpfin.2019.02.002

Ateş, M. A., Bloemhof, J., Van Raaij, E. M., & Wynstra, F. (2012). Proactive environmental strategy in a supply chain context: the mediating role of investments. *International Journal of Production Research, 50*(4), 1079-1095. doi: https://doi.org/10.1080/00207543.2011.555426

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal, 28*(2), 446-463. doi: https://doi.org/10.5465/256210

Austin, J. E., & Leonard, H. B. D. (2008). Can the virtuous mouse and the wealthy elephant live happily ever after? *California Management Review, 51*(1), 77-102. doi: https://doi.org/10.2307/41166469

Avotra, A. A. R. N., Chenyun, Y., Yongmin, W., Lijuan, Z., & Nawaz, A. (2021). Conceptualizing the state of the art of corporate social responsibility (CSR) in green construction and its nexus to sustainable development. *Frontiers in Environmental Science, 9*, 541. doi: https://doi.org/10.3389/fenvs.2021.774822

Aziz, A. (2020). Digital inclusion challenges in Bangladesh: The case of the National ICT Policy. *Contemporary South Asia, 28*(3), 304-319. doi: https://doi.org/10.1080/09584935.2020.1793912

Aziz, A., & Naima, U. (2021). Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society, 64*, 101509. doi: https://doi.org/10.1016/j.techsoc.2020.101509

Bansal, P. R. (2000). Why companies go green: A model of ecological responsiveness. *The Academy of Management Journal, 43*(4), 717-736. doi: https://doi.org/10.2307/1556363

Barnett, M. L., & Salomon, R. M. (2006). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal, 27*(11), 1101-1122. doi: https://doi.org/10.1002/smj.557

Ben-Amar, W., Francoeur, C., Marsat, S., & Sijamic Wahid, A. (2021). How do firms achieve corporate social performance? An integrated perspective. *Corporate Social Responsibility and Environmental Management, 28*(3), 1078-1090. doi: https://doi.org/10.1002/csr.2107

Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information & Management, 57*(2), 103168. doi: https://doi.org/10.1016/j.im.2019.05.003

Berchicci, L., Dowell, G., & King, A. A. (2017). Environmental performance and the market for corporate assets. *Strategic Management Journal, 38*(12), 2444-2464. doi: https://doi.org/10.1002/smj.2670

Bernal-Conesa, J. A., de Nieves Nieto, C., & Briones-Peñalver, A. J. (2017). CSR strategy in technology companies: Its influence on performance, competitiveness and sustainability. *Corporate Social Responsibility and Environmental Management, 24*(2), 96-107. doi: https://doi.org/10.1002/csr.1393

Berry, M. A., & Rondinelli, D. A. (1998). Proactive corporate environmental management: A new industrial revolution. *Academy of Management Perspectives, 12*(2), 38-50. doi: https://doi.org/10.5465/ame.1998.650515

Bettinazzi, E. L., & Zollo, M. (2017). Stakeholder orientation and acquisition performance. *Strategic Management Journal, 38*(12), 2465-2485. doi: https://doi.org/10.1002/smj.2672

Boudreau, J. W., & Ramstad, P. M. (2005). Talentship and the evolution of human resource management: From professional practices to strategic talent decision science. *Human Resource Planning Journal, 28*(2), 17-26. doi: https://doi.org/10.1002/hrm.20054

Caballero-Morales, S.-O. (2021). Innovation as recovery strategy for SMEs in emerging economies during the COVID-19 pandemic. *Research in International Business and Finance, 57*, 101396. doi: https://doi.org/10.1016/j.ribaf.2021.101396

Carroll, A. B. (1999). Corporate social responsibility: Evolution of a definitional construct. *Business & Society, 38*(3), 268-295. doi: https://doi.org/10.1177/000765039903800303

Chang, C. H. (2016). The determinants of green product innovation performance. *Corporate Social Responsibility and Environmental Management, 23*(2), 65-76. doi: https://doi.org/10.1002/csr.1361

Chang, T.-W., Yeh, Y.-L., & Li, H.-X. (2020). How to shape an organization's sustainable green management performance: the mediation effect of environmental corporate social responsibility. *Sustainability, 12*(21), 9198. doi: https://doi.org/10.3390/su12219198

Chen, Y.-S., & Chang, C.-H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics, 116*(1), 107-119. doi: https://doi.org/10.1007/s10551-012-1452-x

Chuang, S.-P., & Huang, S.-J. (2015). Effects of business greening and green IT capital on business competitiveness. *Journal of Business Ethics, 128*(1), 221-231. doi: https://doi.org/10.1007/s10551-014-2094-y

Chuang, S.-P., & Huang, S.-J. (2018). The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green information technology capital. *Journal of Business Ethics, 150*(4), 991-1009. doi: https://doi.org/10.1007/s10551-016-3167-x

Clegg, P., Ade, P. A., Armand, C., et al. (1996). The ISO long-wavelength spectrometer. *Astronomy & Astrophysics, 315*(2), L38-L42. Retrieved from http://aa.springer.de/papers/6315002/2300l38.pdf

Collins, H. (2003). Discrimination, equality and social inclusion. *The Modern Law Review, 66*(1), 16-43. doi: https://doi.org/10.1111/1468-2230.6601002

Darnall, N., Henriques, I., & Sadorsky, P. (2010). Adopting proactive environmental strategy: The influence of stakeholders and firm size. *Journal of Management Studies, 47*(6), 1072-1094. doi: https://doi.org/10.1111/j.1467-6486.2009.00873.x

Dash, G., & Paul, J. (2021). CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting. *Technological Forecasting and Social Change, 173*, 121092. doi: https://doi.org/10.1016/j.techfore.2021.121092

Dayan, M., Ng, P. Y., & Ndubisi, N. O. (2019). Mindfulness, socioemotional wealth, and environmental strategy of family businesses. *Business Strategy and the Environment, 28*(3), 466-481. doi: https://doi.org/10.1002/bse.2222

Fartash, K., Davoudi, S. M. M., Baklashova, T. A., et al. (2018). The impact of technology acquisition & exploitation on organizational innovation and organizational performance in knowledge-intensive organizations. *Eurasia Journal of Mathematics, Science and Technology Education, 14*(4), 1497-1507. doi: https://doi.org/10.29333/ejmste/84835

Fernandes, A. A. R., & Solimun. (2017). The mediating effect of strategic orientation and innovations on the effect of environmental uncertainties on the performance of business in the Indonesian aviation industry. *International Journal of Law and Management, 59*(6), 1269-1278. doi: https://doi.org/10.1108/IJLMA-10-2016-0087

Flammer, C. (2013). Corporate social responsibility and shareholder reaction: The environmental awareness of investors. *Academy of Management Journal, 56*(3), 758-781. doi: https://doi.org/10.5465/amj.2011.0744

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50. doi: https://doi.org/10.1177/002224378101800104

Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: a comparison of four procedures. *Internet Research, 29*(3), 430-447. doi: https://doi.org/10.1108/IntR-12-2017-0515

Gatignon, H., & Xuereb, J.-M. (1997). Strategic New Orientation of Product the Firm and. *Journal of Marketing Research, 34*(1), 77-90. doi: https://doi.org/10.2307/3152066

Glavas, A. (2016). Corporate social responsibility and organizational psychology: An integrative review. *Frontiers in psychology, 7*, 144. doi: https://doi.org/10.3389/fpsyg.2016.00144

Grewatsch, S., & Kleindienst, I. (2017). When does it pay to be good? Moderators and mediators in the corporate sustainability–corporate financial performance relationship: A critical review. *Journal of Business Ethics, 145*(2), 383-416. doi: https://doi.org/10.1007/s10551-015-2852-5

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications. Retrieved from https://www.researchgate.net/profile/Marko-Sarstedt/publication/236032728

Hao, W., Shah, S. M. A., Nawaz, A., et al. (2020). The impact of energy cooperation and the role of the one belt and road initiative in revolutionizing the geopolitics of energy among regional economic powers: an analysis of infrastructure development and project management. *Complexity*, 1-16. doi: https://doi.org/10.1155/2020/8820021

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review, 20*(4), 986-1014. doi: https://doi.org/10.5465/amr.1995.9512280033

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment, 5*(1), 30-37. doi:

https://doi.org/10.1002/(SICI)1099-0836(199603)5:1%3C30::AID-BSE38%3E3.0.CO;2-Q

Hashmi, A. M., Aftab, M. A., Naqvi, S. H., Sajjad, W., Mohsin, M., & Khawaja, I. S. (2014). Anxiety and depression in Pakistani medical students: a multicenter study. *Health Med*, *8*(7), 813-820. Retrieved from https://www.researchgate.net/profile/Huseyin-Can/publication/264901199

Homburg, C., Artz, M., & Wieseke, J. (2012). Marketing performance measurement systems: does comprehensiveness really improve performance? *Journal of Marketing, 76*(3), 56-77. doi: https://doi.org/10.1509/jm.09.0487

Huo, C., Dar, A. A., Nawaz, A., Hameed, J., Pan, B., & Wang, C. (2021). Groundwater contamination with the threat of COVID-19: insights into CSR theory of Carroll's pyramid. *Journal of King Saud University-Science, 33*(2), 101295. doi: https://doi.org/10.1016/j.jksus.2020.101295

Hwang, G.-J., Lai, C.-L., Liang, J.-C., Chu, H.-C., & Tsai, C.-C. (2018). A long-term experiment to investigate the relationships between high school students' perceptions of mobile learning and peer interaction and higher-order thinking tendencies. *Educational Technology Research and Development, 66*(1), 75-93. doi: https://doi.org/10.1007/s11423-017-9540-3

Jääskeläinen, A., Laihonen, H., Lönnqvist, A., et al. (2012). A contingency approach to performance measurement in service operations. *Measuring Business Excellence, 16*(1), 43-52. doi: https://doi.org/10.1108/13683041211204662

Jordan, P., & Spiess, M. (2019). Rethinking the interpretation of item discrimination and factor loadings. *Educational and Psychological Measurement, 79*(6), 1103-1132. doi: https://doi.org/10.1177/0013164419843164

Kanungo, R. P., & Gupta, S. (2021). Financial inclusion through digitalisation of services for well-being. *Technological Forecasting and Social Change, 167*, 120721. doi: https://doi.org/10.1016/j.techfore.2021.120721

Kassinis, G., & Vafeas, N. (2002). Corporate boards and outside stakeholders as determinants of environmental litigation. *Strategic Management Journal, 23*(5), 399-415. doi: https://doi.org/10.1002/smj.230

Kim, H., Park, K., & Ryu, D. (2017). Corporate environmental responsibility: A legal origins perspective. *Journal of Business Ethics, 140*(3), 381-402. doi: https://doi.org/10.1007/s10551-015-2641-1

Knight, H., Megicks, P., Agarwal, S., & Leenders, M. (2019). Firm resources and the development of environmental sustainability among small and medium-sized enterprises: Evidence from the Australian wine industry. *Business Strategy and the Environment, 28*(1), 25-39. doi: https://doi.org/10.1002/bse.2178

Lankoski, L. (2008). Corporate responsibility activities and economic performance: a theory of why and how they are connected. *Business Strategy and the Environment, 17*(8), 536-547. doi: https://doi.org/10.1002/bse.582

Lee, D. H., Dedahanov, A. T., & Rhee, J. (2015). Moderating role of external networks and mediating effect of innovation performance on the relationship between technology orientation and firm performance. *Asian Journal of Technology*

Innovation, 23(3), 321-334. doi: https://doi.org/10.1080/19761597.2015.1120498

Lei, L., Wu, X., & Fu, Y. (2019). Effects of sustainability and technology orientations on firm growth: Evidence from Chinese manufacturing. *Sustainability, 11*(16), 4406. doi: https://doi.org/10.3390/su11164406

Leng, Z., Liu, Z., Tan, M., & Pang, J. (2015). Speed leaders and quality champions. *Management Decision, 53*(6), 1247-1267. doi: https://doi.org/10.1108/MD-07-2013-0367

Lin, J., Luo, Z., & Luo, X. (2020). Understanding the roles of institutional pressures and organizational innovativeness in contextualized transformation toward e-business: Evidence from agricultural firms. *International Journal of Information Management, 51*, 102025. doi: https://doi.org/10.1016/j.ijinfomgt.2019.10.010

Lioui, A., & Sharma, Z. (2012). Environmental corporate social responsibility and financial performance: Disentangling direct and indirect effects. *Ecological Economics, 78*, 100-111. doi: https://doi.org/10.1016/j.ecolecon.2012.04.004

Marin, L., Martín, P. J., & Rubio, A. (2017). Doing good and different! The mediation effect of innovation and investment on the influence of CSR on competitiveness. *Corporate Social Responsibility and Environmental Management, 24*(2), 159-171. doi: https://doi.org/10.1002/csr.1412

Mende, M., Salisbury, L. C., Nenkov, G. Y., & Scott, M. L. (2020). Improving financial inclusion through communal financial orientation: How financial service providers can better engage consumers in banking deserts. *Journal of Consumer Psychology, 30*(2), 379-391. doi: https://doi.org/10.1002/jcpy.1103

Mirvis, P. H. (2008). Can you buy CSR? *California Management Review, 51*(1), 109-116. doi: https://doi.org/10.2307/41166471

Mushtaq, R., & Bruneau, C. (2019). Microfinance, financial inclusion and ICT: Implications for poverty and inequality. *Technology in Society, 59*, 101154. doi: https://doi.org/10.1016/j.techsoc.2019.101154

Nawaz, A., Chen, J., Su, X., & Zahid Hassan, H. M. (2022). Material based penalty-cost quantification model for construction projects influencing waste management. *Frontiers in Environmental Science, 10*, 158. doi: https://doi.org/10.3389/fenvs.2022.807359

Nguli, J. N., & Tarus, D. K. (2020). Effect of strategic orientation on financial inclusion among women owned enterprises in Kenya. *International Journal of Comparative Management, 3*(3), 157-182. doi: https://www.researchgate.net/profile/Daniel-Tarus/publication/345905131

Nie, P. y., Wang, C., & Meng, Y. (2019). An analysis of environmental corporate social responsibility. *Managerial and Decision Economics, 40*(4), 384-393. doi: https://doi.org/10.1002/mde.3009

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review, 18*(4), 329-340. doi: https://doi.org/10.1016/j.bir.2017.12.003

Ozili, P. K. (2021). *Financial inclusion research around the world: A review.* Paper presented at the Forum for social economics: Taylor & Francis *50*(4), 457-479. doi: https://doi.org/10.1080/07360932.2020.1715238

Paramasivan, C., & Ganeshkumar, V. (2013). Overview of financial inclusion in India. *International Journal of Management and Development Studies, 2*(3), 45-49. doi: https://doi.org/10.53983/ijmds.v2i3.27

Pervan, M., Višić, J., & Barnjak, K. (2015). The impact of M&A on company performance: Evidence from Croatia. *Procedia Economics and Finance, 23*, 1451-1456. doi: https://doi.org/10.1016/S2212-5671(15)00351-2

Pheng, L. S., & Shang, G. (2011). Bridging Western management theories and Japanese management practices: case of the Toyota Way model. *Emerald Emerging Markets Case Studies, 1*(1), 1-20. doi: https://doi.org/10.1108/20450621111127395

Porter, M. E., & Van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives, 9*(4), 97-118. doi: https://doi.org/10.1257/JEP.9.4.97

Potocan, V. (2021). Technology and Corporate Social Responsibility. *Sustainability, 13*(15), 8658. doi: https://doi.org/10.3390/su13158658

Pratono, A. H. (2016). Strategic orientation and information technological turbulence. *Business Process Management Journal, 22*(2), 368-382. doi: https://doi.org/10.1108/BPMJ-05-2015-0066

Pujari, D., Peattie, K., & Wright, G. (2004). Organizational antecedents of environmental responsiveness in industrial new product development. *Industrial Marketing Management, 33*(5), 381-391. doi: https://doi.org/10.1016/j.indmarman.2003.09.001

Puranam, P., Alexy, O., & Reitzig, M. (2014). What's "new" about new forms of organizing? *Academy of Management Review, 39*(2), 162-180. doi: https://doi.org/10.5465/amr.2011.0436

Rahman, N., & Post, C. (2012). Measurement issues in environmental corporate social responsibility (ECSR): Toward a transparent, reliable, and construct valid instrument. *Journal of Business Ethics, 105*(3), 307-319. doi: https://doi.org/10.1007/s10551-011-0967-x

Rasheed, R., Siddiqui, S. H., Mahmood, I., & Khan, S. N. (2019). Financial inclusion for SMEs: Role of digital micro-financial services. *Review of Economics and Development Studies, 5*(3), 571-580. doi: https://doi.org/10.26710/reads.v5i3.686

Sandell, R. (1998). Museums as agents of social inclusion. *Museum Management and Curatorship, 17*(4), 401-418. doi: https://doi.org/10.1080/09647779800401704

Sassi, S., & Goaied, M. (2013). Financial development, ICT diffusion and economic growth: Lessons from MENA region. *Telecommunications Policy, 37*(4-5), 252-261. doi: https://doi.org/10.1016/j.telpol.2012.12.004

Singh, K., Misra, M., & Yadav, J. (2021). Corporate social responsibility and financial inclusion: Evaluating the moderating effect of income. *Managerial and Decision Economics, 42*(5), 1263-1274. doi: https://doi.org/10.1002/mde.3306

Strobl, A., Bauer, F., & Degischer, D. (2022). Contextualizing deliberate learning from acquisitions: The role of organizational and target contexts. *Journal of Business Research, 139*, 194-207. doi: https://doi.org/10.1016/j.jbusres.2021.09.043

Surroca, J., Tribó, J. A., & Waddock, S. (2010). Corporate responsibility and financial performance: The role of intangible resources. *Strategic Management Journal, 31*(5), 463-490. doi: https://doi.org/10.1002/smj.820

Tampakoudis, I., & Anagnostopoulou, E. (2020). The effect of mergers and acquisitions on environmental, social and governance performance and market value: Evidence from EU acquirers. *Business Strategy and the Environment, 29*(5), 1865-1875. doi: https://doi.org/10.1002/bse.2475

Tong, L., Wang, H., & Xia, J. (2020). Stakeholder preservation or appropriation? The influence of target CSR on market reactions to acquisition announcements. *Academy of Management Journal, 63*(5), 1535-1560. doi: https://doi.org/10.5465/amj.2018.0229

Ugoani, J. (2019). Business ethics and its effect on organizational sustainability. *Global Journal of Social Sciences Studies, 5*(2), 119-131. doi: https://doi.org/10.20448/807.5.2.119.131

Vastola, V., & Russo, A. (2021). Exploring the effects of mergers and acquisitions on acquirers' sustainability orientation: Embedding, adding, or losing sustainability. *Business Strategy and the Environment, 30*(2), 1094-1104. doi: https://doi.org/10.1002/bse.2673

Voss, G. B., & Voss, Z. G. (2000). Strategic orientation and firm performance in an artistic environment. *Journal of Marketing, 64*(1), 67-83. doi: https://doi.org/10.1509/jmkg.64.1.67.17993

Wang, H., Tong, L., Takeuchi, R., & George, G. (2016). Corporate social responsibility: An overview and new research directions: Thematic issue on corporate social responsibility. In (Vol. 59, pp. 534-544): Academy of Management Briarcliff Manor, NY. doi:https://doi.org/10.5465/amj.2016.5001.

Xu, X., Zeng, S., & Chen, H. (2018). Signaling good by doing good: How does environmental corporate social responsibility affect international expansion? *Business Strategy and the Environment, 27*(7), 946-959. doi: https://doi.org/10.1002/bse.2044

Yesmin, S., Paul, T. A., & Uddin, M. (2019). bKash: Revolutionizing mobile financial services in Bangladesh? In *Business and management practices in South Asia* (pp. 125-148): Springer, 125-148. doi: https://doi.org/10.1007/978-981-13-1399-8_6.

Zahra, S. A., & Bogner, W. C. (2000). Technology strategy and software new ventures' performance: Exploring the moderating effect of the competitive environment. *Journal of Business Venturing, 15*(2), 135-173. doi: https://doi.org/10.1016/S0883-9026(98)00009-3

Zhou, Y., Shu, C., Jiang, W., & Gao, S. (2019). Green management, firm innovations, and environmental turbulence. *Business Strategy and the Environment, 28*(4), 567-581. doi: https://doi.org/10.1002/bse.2265