Managing Climate Change Risks and Creating Stakeholders' Value via Sustainability-Focused B2B Brand Strategies

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Abstract

As climate change poses substantial risks to society, businesses may expect that if they are responsive to climate change risks and adopt sustainable practices, stakeholders will embrace them. While as a consumer, one may buy from firms that show sensitivity to climate change and sustainability practices; however, when it comes to investing, they may behave the opposite. Scholarly research has predominantly examined the sustainability crisis and its implications in B2C settings. However, the issue is under-researched and more pertinent to B2B firms' practices as climate change is largely affected by the adopted industrial practices in the value chain and manufacturing process, which may not be environmentally friendly. In B2B firms, it is a complex scenario given that several value chain partners and intermediaries are involved, and their practices need to be aligned and integrated with the firm's sustainable development agenda. This tension naturally raises a question, i.e., what strategies B2B firms should adopt to generate stakeholders' value in view of the critical climate change risks? In attempting to resolve this pertinent challenge, our study provides a framework linking climate change risks to the firm's brand strategy, customer engagement, and, finally, to stakeholders' value. In developing our framework, we consider key contingency factors related to the firm, customer, and country. We also provide managerial guidance for B2B firms in mitigating the direct and indirect effects of the climate crisis and suggest directions for extending research on climate change risks and sustainability practices.

Keywords: *climate change risks; grand challenge; brand positioning; value proposition; customer engagement; stakeholders' value; sustainability; crisis.*

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1. Introduction

The grand challenge of climate change has set what seems like a doomsday condition for society. The earth's climate is changing as evidenced by changes in our weather, oceans, and ecosystems, such as changing temperature and precipitation patterns, increases in ocean temperatures, sea level, and acidity, melting of glaciers and sea ice, changes in the frequency, intensity, and duration of extreme weather events, shifts in ecosystem characteristics, like the length of the growing season, the timing of flower blooms, and migration of birds (EPA, 2023). The impact of planet-warming pollution is already more severe than expected, and we face increasingly dangerous and severe consequences (CNN, March 2023). In such a scenario, the role of sustainability takes center stage. Amid sustainable development goals proposed by the UnitedNations (2015), the U.S. joining the Paris Agreement in 2021 (UNCC, 2021), and setting of net zero emission target by 2050 (UNCCC, 2021), the sustainability initiatives taken by firms are drawing attention from scholars, practitioners, and policymakers alike. One such set of initiatives pertains to addressing the grand challenge of climate change risks using sustainability-led brand strategies of B2B firms. In this regard, an NYU Stern Centre for Sustainable Business study finds that sustainability-marketed products generated 50% of packaged goods growth between 2013 and 2018 (Whelan & Kronthal-Sacco, 2019).

B2B firms are recognizing the far-reaching implications of climate change risks and putting efforts into mitigating such risks. In this regard, one of the most pertinent tensions led by the climate change crisis is creating stakeholder value and devising relevant strategies that B2B firms should adopt in order to address this grand challenge. As an example of the importance of stakeholder value creation in the B2B context, Robeco (2023) – an investment and asset management company – has launched sustainable loans for investors involved in sustainable actions. Moreover, the company also assists B2B firms in meeting decarbonization objectives. The company believes it enhances the stakeholders' value by doing so. Similarly, Deloitte's (2023b) report asserts that global decarbonization can yield an economic dividend of U.S. $43 trillion by 2070, compared to the world where climate change initiatives remain unattended. Such expected economic yield demonstrates the significance of addressing the climate change crisis. Furthermore, McKinsey's (April 2022) report asserts that sustainability is the key driver of B2B firms' growth and competitive advantage.

Furthermore, Forbes (2022b) suggets that businesses should altruistically embrace climate change initiatives and act as solvers of grand challenges that affect societal well-being. Collectively, these marketplace evidence emphasize the critical role and need for developing sustainability-led strategies by B2B firms in managing the climate change risks and creating value for stakeholders.

In this study, we argue that B2B firms should prioritize adopting sustainability-oriented marketing practices by developing sustainability-related value propositions and brand positioning. Despite the substantial importance of climate change risks, there is a dearth of research in the B2B context (Nyberg & Wright, 2022). Moreover, the role of brand strategies has also remained largely neglected in this regard. The brand strategies are critical to examine in managing the climate change crisis, given that practitioners, as well as scholars, have constantly been emphasizing the importance of sustainability integration in brand strategies for achieving sustainable performance (Kumar & Christodoulopoulou, 2014; McKinsey, February 2023; Sharma, Iyer, Mehrotra, & Krishnan, 2010). Creating stakeholders' value is also crucial, and failure to create stakeholders' value as an outcome of the sustainability ecosystem is deemed as the new marketing myopia (Sheth & Sinha, 2015; Smith, Drumwright, & Gentile, 2010). However, there is a lack of scholarly contribution on how B2B firms can protect or improve stakeholders' value through implementing brand-related initiatives in response to climate change risks. Gupta and Kumar (2013) state that there is a lack of conceptualization in explaining how brand strategies can help firms create value propositions and positioning through initiatives that seemingly tackle climate change risks. By engaging the customers, e.g., value chain partners in a value chain network for climate change risk mitigation efforts (Chandler & Lusch, 2015; Davey, O'Brien, Ouschan, & Parkinson, 2022), a firm may be able to generate value for its stakeholders, e.g., brand loyalty, reputation, and positive brand perceptions (Kumar & Pansari, 2016). It is argued that examining the role of customer engagement amid the climate change crisis is centripetal in B2B setting, given that customer engagement is a primary focus in B2B firms' strategies (Hollebeek, Keeling, & de Ruyter, 2022; Sands, Campbell, Ferraro, & Plangger, 2022) and unsustainable industrial practices yield and further aggravates the prevailing negative impact of climate change crisis (UNEP, 2020). In this regard, extant research asserts that engaging customers in climate change initiatives is imperative to develop sustainable solutions (Hampton et al., 2022).

Against the backdrop of the aforementioned arguments, the overarching objective of this research is to generate insights and provide guidance on "*how B2B firms can generate*

stakeholders' value through managing climate change risks?" As climate change risks cast indirect effects on B2B industries and the concerned stakeholders, a challenging puzzle to resolve in this regard is how B2B firms can protect the stakeholders' value (Haenlein, Bitner, Kohli, Lemon, & Reibstein, 2022). Accordingly, the proposed integrated framework of this study is an attempt to resolve the critical challenge of managing climate change risks. Specifically, this study framework demonstrates the important role of B2B brand strategies and how these strategies create customer engagement and value for the stakeholders. The study also presents guidance on managing climate change risks and some pertinent research questions that merit future investigation.

2. Research Motivation

2.1. Related literature and marketplace evidence

Climate change refers to "a shift in the climate pattern mainly caused by the greenhouse gas emissions from natural systems and human activities" (Fawzy, Osman, Doran, & Rooney, 2020, p. 1). It could negatively impact economic activities, food and shelter availability, infrastructure, human health, water and electricity resources, etc. Climate change creates acute risks causing physical impacts on the regions worldwide, leading to global socio-economic change (McKinsey, January 2022). It is further asserted that these risks are increasing, non-stationary, spatial, non-linear, systematics, regressive, and unprepared, making it a grand challenge to address by practitioners and policymakers worldwide (McKinsey, January 2022). The range of risks to the industries includes disruption to production processes, damage to physical assets, interruptions in infrastructure services, and deconstruction of natural capital (McKinsey, January 2022).

Consider the case of California's insurance industry as an example. There was wide circulation in the mass media that warmer temperature in California is accounting for higher product failures and more car accidents (CBC-News, January 2023). Similarly, homes are increasingly being destroyed by natural disasters, leading to increased insurance premiums, thus making insurance less affordable for society. In such a crisis, critical questions arise: Can sustainable practices be adopted in car manufacturing or the home building sector? Electric vehicles are an option, but are there any other ways to use sustainable materials in cars that would eventually lower the insurance premium? Similarly, rather than using wood in constructing houses, what sort of sustainable materials could be used to reduce the insurance cost for the customers, thereby protecting the stakeholders (e.g., customers' well-being)? Another example is Ten Thousand Islands and Hurricane Ian in Florida (Guardian, October

2022), where people are now moving out from these islands because they are progressing to be submerged. Owing to high premiums due to such incidents, it is becoming difficult for consumers to afford insurance (CBC-News, October 2022; Fox-Business, January 2023; WUSF, November 2022). Moreover, Florida, with no income tax and relying on sales tax for revenue, may start to charge income tax, and hence causing an indirect *effect* of climate change on society, affecting business practices and harming stakeholders' well-being.

According to World Economic Forum's Global Risk Perception Survey (2022), climate change is the world's top risk that will impact businesses across industries over the next ten years, whereby stakeholders will encounter far-reaching consequences, including a loss in shareholders' value. The substantial rise in global average temperature has led to climate change initiatives across various business sectors (Díaz Tautiva, Huaman, & Ponce Oliva, 2022). According to Deloitte (2022) and World Economic Forum, climate change forces stakeholders to face adverse consequences outside historical norms, such as material legal actions from stakeholder groups causing financial or equity loss. These consequences particularly impact the B2B sector (Pomirleanu, Gustafson, & Townsend, 2022; Sharma, 2020). In practice, firms can be segregated into two types: 1) firms that hardly engage in sustainable practices and makes profitable returns for their investors and 2) firms that invest in sustainability efforts and may compromise on financial returns. Hence, it opens a challenge for companies to choose between profit vs sustainability (Le Menestrel, Le Menestrel, & De Bettignies, 2002). For example, ExxonMobil – the biggest oil company, has been reported for unsustainable practices, i.e., high carbon dioxide emissions in South East Asia leading to negative publicity in the press (Guardian, 2015), whereas Shell is developing sustainability mission to earn 50% of its revenue from non-fuels by 2025 (Forbes 2021).

According to Elkington and Rowlands (1999) triple bottom line (TBL) view, companies must consider the social, environmental, and economic aspects in their practices for sustainable value creation. Aguinis and Glavas (2012, p. 933) further assert the TBL theoretical perspective as "context-specific organizational actions and policies that take into account stakeholders' expectations and the TBL of economic, social, and environmental performance dimensions". The TBL approach helps B2B managers to diagnose the firms' initiatives in achieving the desired objective in a particular dimension (Huang, Surface, & Zhang, 2022). In light of the triple bottom line perspective, businesses should altruistically embrace climate change initiatives and act as solvers of grand challenges that affect societal well-being (Forbes, 2022a). In general, firms use natural resources for business; hence, the returns should be channelled back to the community directly or indirectly. B2B businesses

across a range of industries, such as insurance, car manufacturing, and home developers, must make sustainable efforts to mitigate climate change risks. According to Forbes (May 2023) report, the companies that have invested in protecting against climate change risk have witnessed substantial growth over the past five years, e.g., First Solar (+200%), Enphase Energy (+4420%), and Tesla (+850%). However, to devise strategies for climate change risks, companies must upgrade their entire value chain to integrate sustainable development offerings (Hochachka, 2023). For example, decarbonization-related sustainability objectives are driving electricity markets to deploy renewable technologies in business practices such as rooftop solar photovoltaic panels and heat pumps (Keiner, Ram, Barbosa, Bogdanov, & Breyer, 2019), smart meters for demand response (Daly, Qazi, & Flynn, 2019), and innovative ancillary services (Foley et al., 2020). These eco-innovations are embedded in B2B firms' strategies for protecting the environment.

In this paper, we reviewed academic, practitioner-oriented articles and marketplace evidence on climate change and sustainability issues and drew insights from B2B managerial and client interviews. In Table 1, we exhibit select academic studies, and in Table 2, Marketplace evidence on climate change and sustainability. The insight from literature and marketplace evidence depicts the importance of studying the aforementioned pressing issues.

[Insert Tables 1 and 2 about here]

2.2. Managerial interviews

We interacted with the managers of B2B firms and their clients to receive their perspectives on climate change related issues and concerns. We interviewed 25 managers and 30 clients from various industries, including automobile, electronics, airline, telecommunication, insurance, and banking. We collected data from five countries. Each of the countries had 5 managerial and 6 client interviews. They were contacted through assistance from the local business associations and the executives. For example, in the U.S., we reached out to the CEO/CMO Roundtable organizations, and in India, to the C-level and mid-level executives enrolled in Executive doctorate and MBA programs in top universities. As far as interviewing clients, we requested each firm to provide us with a list of 20 to 25 clients, from which we randomly picked customers to get a complete response from 6 customers in each country. The in-depth unstructured interviews that lasted for around thirty minutes were conducted in the following countries: U.S., UK, Canada, India, and China. The managers participating in our study were working at the senior level in their organizations.

We encouraged the managers to share their views on issues they deemed relevant to the climate change risks and in the process. Managers provide their overarching view on- how the climate crisis has affected their as well as competition firms' brand practices; how a firm can integrate sustainability in its value chain practices to mitigate the direct and indirect (ripple) effects of the climate crisis; and, what sustainable brand practices they adopt and the pertinent challenges they face in the process.

The following key insights were captured in this process. First, managers believe climate change is one of the most significant and prevailing challenges to address in their industry that needs a critical focus and vision of leadership at all levels. Second, nurturing the sustainability culture within the firm requires building a skill set among employees to redesign value offerings and positioning aligned with the firm's sustainability vision. Third, most companies are now integrating net zero objectives in their visions. To achieve this, companies must work closely with clients and partners to create sustainable solutions; hence, stakeholders' collaboration is imperative in achieving sustainability visions. Fourth, managers of B2B firms stressed that though companies need to engage with value chain partners, the partners may have conflicting priorities. Therefore, it is necessary to inform and educate value chain partners about the firms' sustainability vision and emphasise the critical importance of comprehending climate change and its repercussions. Fifth, managers highlighted firms' dilemma regarding a trade-off between sustainability and profitability. They are often concerned about the outcome of sustainable brand strategies, i.e., whether it would affect the bottom line adversely. Managers are unaware of the effect of sustainability-based brand strategies on stakeholder value creation. Hence having some knowledge and framework in this regard is critical. Finally, the firm's sustainability vision must be governed and aligned with national policies and SDGs.

Since addressing climate change is complex, firms require emergent skills (e.g., new value architectures and ways of interacting with stakeholders) to sensitize and create sustainability consciousness. Based on the interaction with managers of client firms and clients, we deduce that end customers are now becoming more conscious about climate change and sustainability; hence, they invest in companies that take informed and conscious steps in dealing with this complex issue. Customers are well aware that climate change and sustainability issues affect them not only in terms of cost but also it is critical to follow for the greater good of society. In sum, the brand that owns an environment-friendly image gets more customer love. Lastly, along with action steps taken in the entire supply chain, firms

must develop strategic communications keeping sustainability vision in mind to gain customer trust and support, however, should positively avoid greenwashing.

In the next section, based on the insights drawn from the academic and practitioner literature review, B2B mangers and clients interviews, and marketplace evidence, and get the face and content validity done by experts in the domain, we present our integrated framework depicting the linkages of climate change risks with B2B brand strategy, customer engagement, and stakeholders' value.

3. Conceptual Framework

3.1. Importance of addressing sustainability and climate crisis in B2B firms

Amid the critical focus on sustainable development goals by United Nations, firms intend to align their practices to be more sustainable. Among the prevailing grand challenges, a challenge that brings devastating consequences for society is climate change. Climate change risk is triggered and aggravated by unsustainable industry practices. While it is essential to be considered in B2C firms and current literature attempts to make contributions in this regard (Gössling et al., 2012; Kurowski et al., 2022), however, backed by the discussion drawn from B2B firms' managerial insights and practitioners' sources in this study, it is clearly evident that it is more pertinent and complex issue in B2B setting which require an urgent attention. B2B firms have complex value chain and intermediaries involved, hence sustainability practices are needed to be integrated in the entire brand practices to mitigate the associated risks (Kumar and Christodoulopoulou, 2014). Accordingly, this study presents an integrated framework for the influence of climate change risks on B2B brand strategy for customer engagement and stakeholders' value creation. Drawing insights from prior literature and considering the contingency theory, which postulates that optimum organization functioning and structure is dependent upon the external environment (Dill, 1958; Luthans & Stewart, 1977), and triple bottom line (TBL) perspective that companies must consider the social, environmental and economic aspects of sustainability in their practices for value creation (Elkington & Rowlands, 1999), we expect that the relationship between climate change risks and brand strategy is contingent on firm, customer, and country factors (Albitar, Al-Shaer, & Liu, 2023; Borland & Lindgreen, 2013; Jeswani, Wehrmeyer, & Mulugetta, 2008; Wells, Ponting, & Peattie, 2011). Figure 1 exhibits the conceptual framework, and the subsequent section presents arguments for the proposed relationships that are shown in our framework.

[Insert Figure 1 about here]

3.2. Influence of climate change risks on firm's brand strategy

In industrial businesses, marketers face societal pressures from the government, customers, and other stakeholders to adopt climate change initiatives, e.g., replacing single-use plastics (Kapitan, Kemper, Vredenburg, & Spry, 2022), solar panels as a renewable energy source (Hu et al., 2016), low carbon emission utilities and transportation (Renukappa, Akintoye, Egbu, & Goulding, 2013). Amid sustainable development goals (UnitedNations, 2015), B2B manufacturers and service providers are now seeking avenues for implementing climate change strategies. A study of 136 large Global 500 companies reveals that firms should take market-oriented actions to address the climate change risks (Kolk & Pinkse, 2005). However, the critical role of climate change risks in product offerings and brand strategies of B2B firms (e.g., incentives for manufacturing electric vehicles) has largely remained neglected. Brand positioning and value proposition are the marketing imperatives and part of a firm's brand strategy. Brand positioning is defined as creating the brand image and reputation in the minds of stakeholders (Kapitan, Kennedy, & Berth, 2019), and value proposition is a strategic tool that is used to communicate how a firm provides superior value to customers (Payne, Frow, & Eggert, 2017, p. 472). The two are distinct brand strategies whereby former focuses on building brand's standing in the minds of the customers relative to competing firms, and the latter deals with communicating the value brand creates for its stakeholders.

In the B2B context, successful brand strategies have a substantial importance in creating competitive advantage (Bendixen, Bukasa, & Abratt, 2004; Khan, Khan, Abosag, & Ghauri, 2023). The power of brands becomes even more critical when transactions require substantial investment from buyers (Backhaus, Steiner, & Lügger, 2011). A strong B2B brand can help firms to justify price premiums, improve product quality perceptions, and encourage positive word-of-mouth (Persson, 2010). This assertion is also supported by the clients' interviews, who agreed that they connect and engage with brands that are more sustainable. B2B firms' brand strategy to create a value proposition - the value that the client firms promise to their target audience (Lepak, Smith, & Taylor, 2007) - can drive long-term customer base generation (Mishra, Ewing, & Pitt, 2020) and even serve as a diagnostic tool for providing solutions and customer retention (Jalkala & Keränen, 2014). Further, sustainability-related brand practices open up avenues for marketing practitioners to plan and execute new marketing initiatives, and when these initiatives are integrated with the overall

brand architecture or a brand's culture, it represents and develops the brand image as sustainable (Gupta & Kumar, 2013; Teece, Pisano, & Shuen, 1997). When a firm is recognized and perceived as a sustainability-oriented brand, it also helps create a differential advantage based on its efforts toward protecting the environment (Papadas, Avlonitis, Carrigan, & Piha, 2019; Shrivastava, 1995). Importantly, when marketing managers communicate about the firm's sustainability practices and orientations, it positively impacts customers' perceptions and helps improve the stakeholders' well-being (Menon & Menon, 1997). Thus, the power of the brand lies in addressing the market challenges and finding an amicable solution (Jalkala & Keränen, 2014). In this perspective, brand is viewed as a tool that drives sustainable business model (Abuzeinab, Arif, Qadri, & Kulonda, 2018). A sustainable brand is the one that develops operations and values for protecting the environment and community, consequently driving goodwill and a positive image of the company, generating dividends for shareholders, and creating stakeholders' loyalty (Loh & Tan, 2020).

A firm's attempt to mitigate climate change risk represents its sustainability orientation. According to Kumar and Christodoulopoulou (2014) and concurred with the managerial interviews, sustainability initiatives must be integrated into a brand strategy and consistently communicated via various marketing applications such as CSR reporting and advertising. Such initiatives ensure that customers and stakeholders remain aware of the company's sustainable practices and form sustainability associations with the firm, thereby leading to a more favorable image in the minds of the consumers. Kumar and Christodoulopoulou (2014) further assert that sustainability-related initiatives can be executed as brand strategies in firms' marketing applications. Firms integrating a particular orientation will develop positioning and value architectures in line with their orientations (Baumgarth, 2010; Iyer, Davari, Zolfagharian, & Paswan, 2019; Sheth & Sinha, 2015). For example, a firm with a target for net-zero emission (through utilizing environmentally friendly manufacturing and supply chain processes for the offerings) could embed this objective into its entire brand architecture and communicate this positioning and value proposition via marketing communications. Further, the brand associations should be carried across the entire portfolio rather than for individual product categories to build strong brand positioning (Henderson & Arora, 2010). Embedding such initiatives into a brand's culture would augur competitive performance (Gupta & Kumar, 2013).

Taking the above discussions into the B2B perspective, firms' responses to climate change risks can influence brand strategies. As an example of a climate change initiative of a

B2B firm, Schneider Electric is contributing to protecting climate change by developing sustainable energy solutions (Schneider-Electric). Furthermore, the firm is creating value for customers by changing the lives of unemployed people in India by training them in electrical installation and maintenance. Accordingly, the firm response to the climate change risk has changed its positioning and value proposition based on sustainability missions. A recent study argues that in dealing with climate change risks, B2B firms should ensure resilient and sustainable production systems and that firms' actions or responses to climate change can help them in devising plans and strategies for creating awareness and value creation (Voola, Bandyopadhyay, Voola, Ray, & Carlson, 2022).

Further, Czinkota, Kaufmann, and Basile (2014) argue that B2B brand managers should engage in brand strategies driven by their sustainability-related actions. They further assert that brand strategies reduce information asymmetry concerning to practices (e.g., climate change risk mitigation actions) and customers' unawareness regarding corporate objectives and value offerings. On the one hand, the interviewed managers also provided consistent views by asserting that climate change is compelling firms to change their brand value architecture and positioning as their clients and stakeholders are also getting more conscious and aware of the consequences of negligence. On the other hand, clients also stressed that they not only purchase from sustainable brands but also provide referrals and positive word of mouth. Drawing on these arguments, we contend climate change risks may influence B2B firms in building brand strategies (i.e., positioning and value propositions). Accordingly, we propose the following relationship:

> **P1.** Climate change risks will influence the firm's brand strategy through a) brand positioning and b) value proposition.

3.3. Moderating mechanism for climate change risks on brand strategy

3.3.1. Firms' ability to manage risks

Firms must build the required capabilities to deal with emerging environmental forces in order to secure a sustainable future (Gupta et al. 2020). Firms' ability to manage risk is defined as a "firm's crisis management capacity and the ability in societal function to withstand serious disruptions" (Eriksson & Juhl, 2012, p. 77). B2B firms, particularly manufacturing companies, are the major contributors to the emission of greenhouse gases due to unsustainable disposal of industrial waste or unsustainable production processes (IPCC, 2018). It is also lamented that inadequate risk management capabilities that fail to internalize the complexities posed by climate change have hindered firms' abilities to become

sustainable (Finke, Gilchrist, & Mouzas, 2016). Low risk or uncertainty tolerance shifts the company to focus on short-term objectives, such as neglecting the climate change risks and focusing on profitability, as opposed to tackling the crisis through reconfiguring the strategies for sustainable advantages in the long run (Slawinski, Pinkse, Busch, & Banerjee, 2017). There are several reasons why this focus on short-term objectives is flawed regarding climate change (Todaro, Testa, Daddi, & Iraldo, 2021). First, the variability and proportional impact of the climate crisis are uncertain to most businesses across industries (Todaro et al., 2021). Second, climate change requires investment decisions, planning, and strategic integration to manage the crisis (Todaro et al., 2021). Some firms even realize that the cost of sustainability investment should not be compared with the status quo, as they (i.e., firms) may not exist over a more extended period (Glynn & Cooper, 2022). Todaro and colleagues further argue that firms will be exposed to greater risk and cost in future if they do not take imminent strategic actions. Hence, it is plausible that firms' ability to manage climate change risks will positively drive sustainability-oriented brand strategies.

We can also draw from the studies in the context of crisis management, which suggest that risk management capabilities allow firms to innovate and build resilience, enabling them to face disruptive events better (Sabahi & Parast, 2020; Corrales-Estrada, Gómez-Santos, Bernal-Torres, & Rodriguez-López, 2021). Climate change is driving a new organizational strategic landscape, requiring companies to build key capabilities that may help mitigate the pertinent risks (Wittneben, Okereke, Banerjee, & Levy, 2012). For example, firms should build technological capabilities for low-carbon developments (Mowery, Nelson, & Martin, 2010; Watson, Byrne, Ockwell, & Stua, 2015). These capabilities will subsequently translate into brand positioning and value proposition. For example, General Electric invested in clean coal technology development and positioned its brand accordingly through marketing efforts (Harvey, 2005). Given that institutional players are also activists in climate change initiatives (Munck af Rosenschöld, Rozema, & Frye-Levine, 2014), B2B firms may develop cross-sector partnering capabilities with institutions and universities for resources, knowledge seeking, and capability development to manage the climate change risks (Forbes, February 2023; Kolk & Pinkse, 2008). Such capabilities would allow the firms to rejuvenate their offerings and communications to reflect their sustainability practices. The managers believed firms require unique and agile capabilities to manage the pertinent climate change risk. They further believed that a lack of capabilities and resources, such as sustainable technological solutions, would impact their ability to rejuvenate brand strategies towards sustainability. Based on these arguments, we propose the following relationship:

P2. Firms' ability to manage risks related to climate change will positively moderate the relationship between climate change risks and a) brand positioning and b) value proposition.

3.3.2. Firms' sustainability vision

Through a culture of sustainability, firms can redirect their corporate values toward sustainability (Gupta & Kumar, 2013). Embedding sustainability into the vision can help firms to explore new opportunities (Miller, 2003). A firm's vision can reflect the firm's ability to achieve synergies between its business activities and activities related to achieving greater stakeholders' engagement and social impact (Varadarajan, Welden, Arunachalam, Haenlein, & Gupta, 2022). Since climate change is a contemporary issue of attention for practitioners, it has become a primary focus of the firms' corporate social responsibility vision (SustainabilityTimes, 2022). The vision to mitigate climate change risks can be embedded in the entire value chain. For example, B2B firms can develop new business models to reward suppliers and end users in the power and transport sectors for consuming less energy in product development (Enkvist, Nauclér, & Oppenheim, 2008). Furthermore, companies can also negotiate with supply chain partners to reduce carbon emissions and develop key performance measures in this regard.

Traditionally, marketing and sustainability are considered two opposite ends of a continuum as they underlie a tension between profit-making vs societal well-being (Menon & Menon, 1997). Progressively, however, sustainability practices are now being embedded into the firms' vision (Borland & Lindgreen, 2013). Drawing on strategic orientation and firm vision literature, when firms set directions and goals, they develop agendas to meet them (Katsikeas, Leonidou, & Zeriti, 2016). In doing so, they realign their capabilities and resources to enable the transformational process to create value (Wijethilake & Upadhaya, 2020). A firm's sustainability vision allows stakeholders to have a shared commitment toward sustainable offerings (de Ruyter et al., 2022) that, in turn, affects the innovation strategies toward climate change (Albitar et al., 2023). As an example, managers stressed that B2B firms should collaborate with their partners to ensure sustainability in their entire value chain process, aligned with their strategic vision. Accordingly, they think that this strategic approach would allow B2B firms to build and promote their sustainable image in the minds of customers. A firm's culture is denoted by its vision and is reflected through its brand-level strategies. However, opportunities to tackle social issues are better dealt with when reflected in the firm's understanding and commitment to social responsibility (Chabowski, Mena, &

Gonzalez-Padron, 2011; Peloza & Shang, 2011). These commitments are often reflected through their product offerings and value chain. Varadarajan et al. (2022) also assert that firms must possess a vision for promising product innovations. Similarly, managers and clients believed that firms must entail a sustainability vision and meet the targets to create value for themselves, their customers, and other partners. They further believe that by adopting sustainable practices for climate change, firms are doing good for the overall society and the environment. They believe that firms with effective sustainability vision and relevant brand strategies can engage better with stakeholders and create better reputation. Hence, we argue that a conscious vision to address climate change will reflect in a firm's brand strategies by refining processes and mechanisms that protect the climate. In sum, it can be inferred that when a firm has a vision toward sustainability, it may develop or transform its value propositions and brand positioning toward crisis management. Accordingly, we propose:

> **P3.** The firm's sustainability vision will positively moderate the relationship between climate change risks and a) brand positioning and b) value proposition.

3.3.3. Customers' level of involvement

Amid UN SDG goals, customers are increasingly becoming aware of the importance of sustainability for environmental protection. As a result, they are more concerned and participative in the firm's sustainability initiatives. Customer involvement is a metric that evaluates "the customer level of relevance, excitement, value, appeal, wants and benefits" (Zaichkowsky, 1985). It is defined in the literature as collaboration with customers who often act as a source of information for firm's innovative ways of doing business and co-developing solutions for complex challenges (Cui and Wu, 2016). The level of customer involvement implies gaining knowledge from customers in moderating the inherent risks in decision-making (Delgado-Ballester & Munuera-Alemán, 2001). In sustainability matters, customers are key stakeholders, and issues cannot be addressed without their involvement (Sheth, Sethia, & Srinivas, 2011). In the B2B context, Wright and Nyberg (2017) contend that climate actions are not only driven to respond to regulatory or market risks but also to address emerging opportunities that are sought through customers and dealt through innovations. Customer involvement can influence marketing strategies, e.g., creating and sharing new product value (Fang, Palmatier, & Evans, 2008). The higher the customers' involvement with the product category, the higher the possibility that climate change risks will affect their decision making toward products. This is particularly the case with B2B

firms. An example gained from the managerial discussion is that if a supplier is unwilling to serve a critical raw material and no substitute is available, customers will be more worried about the climate effect. Particularly with industrial firms, customer involvement in innovations is more critical than merely obtaining information about it (La Rocca, Moscatelli, Perna, & Snehota, 2016). Another study in the B2B context argues that customer mobilization acts as an agile tool for value creation, as involvement allows customers to reinterpret communicated value propositions (Davey et al., 2022). Customers perceived value propositions offered by B2B firms differ under different levels of customer involvement (Song, Cadeaux, & Yu, 2016). To exemplify further from a B2B perspective, Mckinsey (April 2022a) article on B2B firms growth in sustainability asserts that these firms need to consider potential and existing customers' demand in decarbonisation initiatives and involve them as ecosystem partners in rejuvenating and creating sustainable value chain to create value. Hence, it is plausible that knowledge gained from customer involvement may serve as a contingent factor in mitigating the climate risks through brand strategies.

The role of customers' level of involvement in collaboration for strategic purposes is far from linear (Lee, Wang, Ma, & Anderson, 2022), suggesting that the level of involvement may cast differential effects on brand strategies. Given that climate change efforts require the rejuvenation of brand strategies, customer involvement would be centric on developing relevant value propositions and brand positioning. Taken together, we argue that under higher customer involvement, the influence of climate change risks on brand strategies would be stronger. This is also in conjunction with the support from the clients' and managerial interviews. The managers believed their clients are becoming more conscious and aware of sustainability practices and related outcomes. Consequently, they would like to be more involved in how they would like to see the brand's offerings. Clients also consistently supported that they engage and get involved with the brands adopting sustainable practices. Hence, we propose the following relationship:

> **P4.** The customers' level of involvement will positively moderate the relationship between the climate change risks and a) brand positioning and b) value proposition.

3.3.4. Customers' degree of climate consciousness

In line with the sustainability consciousness definition (Gericke, Boeve-de Pauw, Berglund, & Olsson, 2019), climate consciousness refers to the awareness and experience of climate change and its pertinent risk. Tapping onto environmental consciousness literature, when customers are environmentally conscious, it affects their habits, beliefs, norms, and

values (Misra & Panda, 2017). When customers are conscious of the possible harm of climate change to society, they tend to engage more in sustainability-related issues (Kassarjian, 1971), which opens up market opportunities to develop products and brands in line with their expectations (Menon, Menon, Chowdhury, & Jankovich, 1999). As climate change casts a negative impact on stakeholders' well-being (Doherty & Clayton, 2011), customers are getting conscious of climate concerns (Lee, Markowitz, Howe, Ko, & Leiserowitz, 2015) and taking responsible actions toward climate change initiatives (Wells et al., 2011). Putting into B2B perspective, customers' consciousness goes beyond merely understanding the climate change risks but extends to building a collective sustainability vision for tomorrow. When B2B customers are conscious, firms are required integrating their ecological concerns for creating value (Kinnear et al., 1974). For example, when environment conscious product design is something that customers are concerned for, then the attention of production and operation needs to take this concern into account through their entire value chain process (Sharma et al., 2010).

It is well established that companies dedicate their efforts toward meeting customers' requirements. Hence, B2B firms develop environmental-friendly policies, products, and strategies when customers consciously demand sustainable offerings (Crittenden, Crittenden, Ferrell, Ferrell, & Pinney, 2011; Despoudi, 2021; Hult, 2011; Sharma et al., 2010). According to B2B managers, customer consciousness can place demands on B2B firms to be sustainable in their marketing and operations. Firms predict customers' expectations and accordingly formulate strategies to engage with them (Zhang & Watson IV, 2020). Supported by managers' perspective and literature, as customer needs to underlie social responsibility, firms would also align their brand strategies with these needs to create value for their customers (Flammer, 2013; Godfrey, Merrill, & Hansen, 2009; Zhang & Watson IV, 2020). In their study of B2B firms, Kapitan et al. (2019) argue that a sustainability positioning can enable a firm to convey its initiatives to the relevant stakeholders for brand image and reputation. When a B2B buyer believes that the brand is highly sustainable in its operations and products have low negative impacts on society, it receives better customer satisfaction and market value (Luo & Bhattacharya, 2006) as well as builds the trust and B2B buyer performance (Casidy & Yan, 2022). Similarly, managers also envisage that under a higher degree of customers' climate consciousness, the climate change risks will influence the B2B firms to develop brand positioning and value propositions in line with the customers' requirements. Thus, we propose:

P5. Customers' degree of climate consciousness will positively moderate the relationship between climate change risks and a) brand positioning and b) value proposition.

3.3.5. Country's ability to deal with climate change risks

Climate change has posed a national-level challenge across the globe. On this issue, studies have found the efficacy of various country-level abilities in managing the pertinent risks. For example, government effectiveness, control of corruption, and democracy are essential factors in economic policy uncertainty and carbon-dioxide emission (Benlemlih & Yavaş, 2023). Furthermore, the country's ability to eliminate climate change risks can be improved by integrating sustainable development strategies (Ferreira, Fernandes, & Ferreira, 2020). However, the countries' ability to manage climate change risks may vary between advanced and emerging economies. In this regard, McKinsey's (January 2022) report suggests that countries with low GDP and financial capabilities are vulnerable to managing climate change risks. To exemplify, the sea level rise due to global warming is exposing many countries to risks, which are generated due to the use of agricultural lands for rice production, a major staple crop for global mass consumption (Dasgupta, Laplante, Meisner, Wheeler, & Yan, 2009). Rice production accounts for methane gas emission that impacts the earth's temperature and climate. As the rice plantation region spreads to a vast area, the emission also increases, which is a common observation in Asian countries (Chen, McCarl, & Chang, 2012). Advanced countries generally have the wealth and capacity to deal with climate change (Page, 2008). Climate adaptation programs can eliminate the adverse effects of climate change risks as they can develop readiness to deal with the crisis (Adom & Amoani, 2021). However, this may require cooperation from B2B firms to engage in such sustainability objectives.

Developing countries are more vulnerable to climate change and often more resource constrained. Pakistan is a good example of the devastating impact of climate change on various industries, including agricultural livestock, food, water, energy manufacturing, and healthcare services (Khan, Khan, Ali, Ahmad, & Ahmad, 2016). Due to poor adaptive capacity and resources, the country has remained unsuccessful in overcoming the impact of extreme climatic events such as floods, rising temperatures, melting glaciers, and saturation of lakes. Hussain et al. (2020) state that a country's capability to manage risks is critical in protecting its industries. Given the ripple effects of climate change, it is plausible that when a country can deal with climate change risks, companies would become more environmentally responsible and support the climate change objectives, reflecting such strategic orientations in

their brand positioning and value propositions. Another study argues that as climate change policies and greenhouse gas emissions differ across developing vs developed markets (Jeswani et al., 2008), the capacities to deal with climate change risks may also differ across industries in the countries. According to PwC (2021), the Asia Pacific region is ahead of the world for decoupling practices in climate change initiatives. Notably, the report shows the differential rate of carbon intensity per country in the region, suggesting the differential abilities of countries to manage the climate change risk attributed to industrial practices. As an example, India produced the third largest greenhouse gas emission by volume in 2020, and the country is targeting to reach net zero by 2070, i.e., much later than the Paris Agreement of 2050 for many countries (BBC-news, November 2022). Moreover, it is a significant importer of hazardous waste management practices by industrial firms (Business-Standard, April 2023), which hinders the country's ability to deal with the pertinent climate change risks unless firms develop sustainability orientations and integrate these orientations into its entire brand architecture, i.e., brand's value propositions and positioning. The managers consistently believed that country's (in)ability to deal with climate change (de)promotes the firms' brand strategies to deal with the climate change. As examples, countries' policies, institutional support, culture, environmental practices in country are mentioned as the moderating factors. Managers also think that climate change is more complex to deal in affected emerging (growth) markets where firms are resource-constrained and predominantly reliant on government for support seeking and resources. Therefore, we envisage that when the countries that are part of firm's value chain (i.e., where the firm has its headquarter and the country where the clients are based) are more able to deal with climate change risks, the risks will inform and guide the sustainability-led brand value propositions and brand positioning. Accordingly, we propose:

> **P6.** The country's ability to deal with climate change risks will positively moderate the relationship between climate change risks and a) brand positioning and b) value proposition.

3.4. Linking brand strategy to customer engagement moderated by firm level communication with customers

Scholars and practitioners contend that over a period of time, it is not sufficient to make customers loyal to a firm but to enhance their engagement for sustainable performance (Pansari & Kumar, 2017). Customer engagement is defined as customer activity toward the firm, such as purchase behavior, referrals, social media conversation about the brand, and

feedback to the firm (Pansari & Kumar, 2017, p. 295). Pansari and Kumar (2017) further contend that when a customer relationship is satisfying and sustains an emotional connection, it then leads to the stage of engagement. It contemplates customers' voluntary contribution to marketing functions beyond financial patronage (Harmeling, Moffett, Arnold, & Carlson, 2017). Pansari and Kumar (2017) assert that engagement is the mechanism through which customers add value to the firm in a direct or indirect form of contribution. Engagement occurs when customers are satisfied and develop emotional bonding with a firm. The concept of customer engagement has received marketing scholars' attention in the past decade as an outcome of firms' initiatives toward building customer relationships (Kumar et al., 2010; Sands et al., 2022). These outcomes include firm performance, cost-saving, opt-in, privacy sharing, and marketing (Harmeling et al., 2017; Pansari & Kumar, 2017). Kumar et al. (2010) categorize customer engagement into direct (i.e., purchase) and indirect contributions (i.e., referrals and social media conversation).

Brands are intangible assets that act as strategic tools for incorporating and guiding marketing strategies, including marketing communications (Day, 2011). All firms use communications to educate customers about sustainability practices (Drumwright, 1994). Given the clutter of information customers receive from companies in their everyday lives regarding sustainability initiatives, it often becomes difficult for them to differentiate brands (Crittenden et al., 2011; Kent & Allen, 1994). However, brand communications can foster customer-brand associations (Rust, Ambler, Carpenter, Kumar, & Srivastava, 2004). A strong brand tends to influence customer belief systems about the brand and enables relationship building (Kent & Allen, 1994). When a trust-based relationship is established, customers engage with the brand directly, i.e., through repeat purchases (direct engagement) as well as referrals (indirect engagement) (Pansari & Kumar, 2017). A strong brand can induce customers to engage with the brand through repeated communications (Gupta & Kumar, 2013). Communicating to customers about protecting the environment influences the firm's identity (Rodrigues & Child, 2008), and such initiatives nudge customers to engage with the focal brand, thereby helping protect the environment (Boulatoff & Boyer, 2009). Studies on social responsibility also find that sustainability practices create successful customer engagement through communication (Chu, Chen, & Gan, 2020). Moreover, consumers' support of socially responsible practices reflects their sensitivity toward the firm's practices, implying that marketers should communicate their sustainability practices to enhance customer engagement (Sen & Bhattacharya, 2001). Consistently, stakeholders do not react positively in terms of buying, employment, and investment decisions when their awareness is

low (Sen, Bhattacharya, & Korschun, 2006), implying the importance of communicating with customers. Similarly, stakeholders' awareness of a firm's practices assures investors' confidence and enhances brand value (Loh & Tan, 2020). Managers' views concurred with the assertion of the literature review and emphasized that it is important to regularly communicate the sustainable brand strategies to keep consumers informed. Consistently, clients also emphasised the importance of communicating the sustainability efforts of the brands as they mentioned that they purchase and provide positive referrals for sustainability-oriented brands. Taken together the arguments drawn from literature review and assertions from the interviews, we propose the following:

> **P7.** Communicating to customers about protecting the environment will help the firm to enhance the effect of brand strategy on customer engagement.

3.5. Linking brand strategy to customer engagement to stakeholders' value

As described earlier, brand positioning and value proposition are part of a firm's brand strategy. In a B2B setting, value propositions are viewed as a firm promise of values to its stakeholders (Ballantyne, Frow, Varey, & Payne, 2011). Brand strategies, including value propositions and positioning, can be deployed to foster customer engagement. Customer engagement is a customer relationship management practice beyond loyalty, stressing the importance of creating organizational plans and strategies for value creation (Hollebeek, 2011). Considering the risks of climate change, B2B firms must develop new business models and re-think their brand positioning and value propositions to maximize customer engagement. Hence, engagement can be seen from a transformative perspective, i.e., beyond the functional and transactional engagement (Brodie, Fehrer, Jaakkola, & Conduit, 2019). The transformation approach to engagement suggests a network perspective that can potentially involve multiple stakeholders in the engagement process, particularly in a B2B setting (Storbacka, Brodie, Böhmann, Maglio, & Nenonen, 2016). Extending customer engagement, scholars assert that customer engagement incorporates relationships among different stakeholders, e.g., value chain partners in a value network beyond the dyadic interactions (Chandler & Lusch, 2015; Davey et al., 2022). Customer engagement can potentially deliver value outcomes for stakeholders, such as brand loyalty and positive brand perceptions (Kumar & Pansari, 2016). When relationships with customers are satisfying and emotional, it can progress to customer engagement (Pansari & Kumar, 2017). However, engaging customers in a B2B setting can be challenging as neither they all may share the

same value outcomes (Ekman, Raggio, & Thompson, 2016; Reypens, Lievens, & Blazevic, 2016) nor they may gain the same value outcomes (Frow, Nenonen, Payne, & Storbacka, 2015). Firms must persuade customers about their societal welfare-related initiatives to compete effectively in dynamic market conditions (Bridges & Wilhelm, 2008). Brand strategies are tools to implement marketing techniques to persuade and engage customers (Day, 2011). According to managers and clients, brand strategies translate into a valuable stakeholder experience; therefore, sustainability practices must be integrated into a firm's brand strategy (Van Gelder, 2005). This is important given there has been increasing regulatory and shareholder's pressure on companies to demonstrate value creation for stakeholders through practices that shows their commitment to managing the climate change risks (Albitar et al., 2023; Rashidi-Sabet et al., 2022). Hence, we argue that through brand strategies, B2B firms can effectively engage their customers such that it will create value for all stakeholders in the climate risk mitigation process. Accordingly:

P8. Brand strategy influences customer engagement, which in turn impacts stakeholders' value.

4. Managerial Implications

The suggested conceptualization can help B2B managers plan to deal with the climate change crisis and introduce sustainability in their business value chain. Based on the context, location, firms across industries, and customers, every firm might face direct and indirect effects of climate change risk in their businesses. Accordingly, the firms' managers would like to be equipped with a climate change risk-informed brand strategy response to generate better customer engagement and stakeholder value. The brand strategy response can be directed toward value creation and value appropriation. Value creation is defined as a continuous set of firm's actions in collaborative efforts with stakeholders that creates value for the stakeholders and firms (Kumar & Srivastava, 2022), whereas value appropriation is communicating the firm's created value to the stakeholders to sustain the advantageous position (Mizik & Jacobson 2003) or the value/position that focal firm claims (Wagner et al. 2010) in the market. The combined results of the two response strategies generate stakeholders' value (Kumar & Srivastava, 2022). We adapted the definitions from Mizik & Jacobson (2003) in our contextualization of brand strategies defining value creation as innovating, producing, and delivering sustainable brand *value proposition* and value appropriation as communicating the value to maintain sustainability brand *positioning*. We provide a ***2*2 matrix*** for B2B firm managers to adopt appropriate value creation and value

appropriation brand response strategies, informed by expected climate change risks that directly or indirectly affect B2B businesses. We define the direct effects as an immediate bearing on the given business value chain in the short run, whereas the indirect effects are defined as the ripple/cascading effects on the given business value chain in the long run.

[Insert Figure 2 about here]

We argue that some industries, such as insurance, would have a direct (immediate) impact on climate change, as explained in the manuscript that the cost of insurance is continuously rising in the regions affected by climate (e.g., flood) (CBC-News, October 2022). Similarly, industries like agriculture and energy are also directly impacted (CNBC, 2022). However, some industries could entail cascading impact of climate change that is not immediate, e.g., services such as marketing agencies.

For the B2B industries that have a direct (immediate) impact (e.g., insurance, agriculture, logistics, and real estate), the firms' managers can create value through *inclusion* (level of employees' perception to be valued members of a work group) (Shore et al. 2011), *concurrence* (synergy between core value chain activities and activities to achieve stakeholder engagement and social value creation), *competence* (capabilities to deal with risk at consumers, firm and eco-system level) and *collaboration* (pooling of complementary skills from the partners and stakeholders) (Gupta et al. 2020; Varadarajan et al. 2022). Managers should adopt an inclusive approach involving top-down and bottom-up in developing sustainable products, keeping all value chain partners involved in the value creation process. Such synergy will allow managers to integrate sustainability into the entire value chain to build sustainable value propositions. This would require managers to collaborate with all stakeholders and integrate sustainability practices to bring synergy into firms' value propositions and brand positioning. For value appropriation, B2B firms should be *consistent* (in communicating the message across all channels and platforms), and the managers must be *cognizant* that stakeholders are well-informed about the firm's sustainability vision. Firms can conduct internal (such as training and development of employees and value chain partners) and external branding activities (such as advertising) aligned to their vision to create a robust, sustainable brand positioning. The sustainability value can be further appropriated through *co-creation* by involving clients, value chain partners, and other stakeholders in the given climate risk-related processes.

For the B2B industries that have an indirect impact (e.g., services such as marketing agencies and banking), in order to create value, should *initiate* the firm-level discussions in this direction and build and invest in the firm-level capability to nurture the sustainability vision for future firm preparedness to deal with future risks. Firm managers must constantly *monitor* the country-level policy, market patterns, and competitive strategies and accordingly govern the alignment of firm policy. Developing firm-level capabilities and skills takes time (Khan, 2020); firms should *identify and adopt* best practices from the industry and develop skills in the priority areas ahead of time. The value appropriation can be generated by *initiating* the climate-conscious conversation among stakeholders on the sustainability aspect, understanding and promoting the climate-consciousness sensitivity among critical stakeholders, and *sensitizing* the front-level people about upcoming climate change risks and associated outcomes that would facilitate future readiness. Furthermore, the firm should *align* its communication strategy with global-level conversation around SDGs and communicate the effects of its business' sustainable practices on the stakeholders and society.

Overall, the firms and their managers should intend to integrate the climate change agenda in policy updates and communicate regularly to stakeholders and value chain partners. Firms should continuously promote climate change initiatives to build sustainable brand positioning over time. By doing so, the focal firm will generate positive direct and indirect customer engagement (through purchases and referrals due to a positive brand connection). Considering the triple bottom line approach, the value can also be gauged by outcomes for society and the environment, generating a broader impact.

5. Discussion and Future Research

Climate change draws considerable attention from environmentalists and policymakers but also from investors. Managers of B2B firms must be aware of the climate change risks as it has long-term societal implications; organizations usually do not appreciate the grand challenges of climate change risks. Businesses, in general, have an interest in translating such critical issues away from outcomes that challenge their profitability. However, the climate change risks can be translated into opportunities leading to enhanced customer engagement and stakeholders' value. Overall, strategies that aid in sustainable environments are also good for the firm. Many companies overlook the pressing climate risks they face. By understanding them better, leaders can safeguard their business and identify opportunities to compete in a decarbonizing world (PwC, May 2022).

Transforming brand strategies for stakeholder value creation pertinent to the climate crisis is challenging. According to Kumar and Christodoulopoulou (2014), marketing scholars should continue to advance conceptualization that discusses the contributions of managing business practices based on sustainability-related initiatives. Brønn and Vrioni (2001) assert that marketing scholars should focus on the triple bottom line theory in brand management practices. Furthermore, Ratnayake and Liyanage (2009) emphasize that firms should consider societal relationships in value creation in incorporating sustainable practices instead of merely financial perspectives. In this view, our study presents a conceptual framework that can help mitigate climate change risks through brand strategies, such that the strategies result in enhancing customer engagement and stakeholders' value. A brand is an effective tool that integrates business with the social environment, e.g., establishing firm-customers associations (Grace & O'Cass, 2002). Our framework proposes that sustainable brand strategies can provide benefits through customers' direct engagement (i.e., purchase) and indirect engagement (i.e., referrals). Further, brand strategies generate enhanced customer engagement and superior value when effectively communicated to the customers.

The C-suite executives should consider climate change matters as part of their obligations as company leaders. Integrating climate change and sustainability into strategic vision can help leaders address climate change risks better. Further, the successful implementation of sustainability initiatives requires sustainability to be part of the company's vision. Such a sustainability vision gets reflected in the firm's brand strategy. In doing so, managers should plan to address risks through sustainability actions by considering all stakeholders, including customers, suppliers, communities, and other value chain actors (Hunt, 2011; Smith et al., 2010). With the help of this information, managers can accordingly create value for stakeholders through brand strategy and customer engagement. This would require B2B managers to integrate sustainable practices in their operations and value chain activities, and their value propositions and positioning must reflect their actions. In sum, managers can build their brands by explaining the impact of their sustainability actions in helping society and the ecosystem.

Marketing can play an essential role in the organization's sustainability efforts through the brand strategy. Extant literature on environmental sustainability across various business disciplines emphasizes marketing's role on the demand side. As customers' level of involvement as well as the degree of climate consciousness, is increasing, managers of B2B firms should engage in effective communication about sustainable practices while interacting with existing and prospective buyers. The brand values, i.e., the climate risk mitigation vision

embedded in brand positioning, can help engage customers directly and indirectly. Hence, managers should consistently promote such positioning as they can use their sustainable brand as a strategic tool to differentiate from competing firms and create positive value for the stakeholders and society.

Several intriguing research questions follow from our study that needs exploration. Please refer to Table 3 for the suggestive future research agenda and aligned rationale for future investigation.

[Insert Table 3 about here]

6. Conclusion

Climate change risks and respective sustainability actions are critical business challenges of our times, especially in the B2B setting. B2B marketing research lacks initiatives to understand how climate change risks can be mitigated. Hence, our study makes a significant contribution given the triple effects of climate change on society, business practices, and stakeholders. This paper sets a research agenda on B2B firms' role in managing climate change risks. Specifically, we presented an integrative framework outlining how B2B firms can mitigate the negative impacts of climate change risks through brand strategies (value propositions and brand positioning). This study provides a strong conceptualization in this direction, and an empirical investigation in future can augment the insights further. The suggested framework proposes that climate change risk mitigation-oriented brand strategies can create opportunities to engage customers and enhance stakeholders' value. Specifically, our study identifies the conditions under which these strategies would be more influential for direct and indirect customer engagement and ultimately create value for the stakeholders. Consumers often gain confidence in the firm's offerings based on the value a brand contributes to them and society (Fournier, 1998). Through brand strategies, B2B managers can manage customer relationships by signalling their sustainability practices, implying the sustainability focused value their brand delivers (Vesal, Siahtiri, & O'Cass, 2021). Hence, our framework stresses that integrating climate change initiatives into B2B brand strategy can help firms engage with customers who are conscious about sustainability and concerned about the consequences of climate change risks. According to Gupta and Kumar (2013), sustainable brand management practices open new avenues to create value for the business. Moreover, such practices satisfy customers' needs and create value for stakeholders (Menon & Menon, 1997). Accordingly, the center of our

proposed framework's approach is the integration of sustainable climate change risk management practices in brand strategies for customer engagement and stakeholders' value.

Table 1. Select studies on climate change and sustainability.

Author.	Study Focus	Key insights
Albitar et al. (2023)	Exploring the effect of eco-innovation and climate governance on corporate commitment to climate change	Corporate eco-innovation and climate governance are positively associated with climate change commitment. A firm's sustainability vision allows stakeholders to have a shared commitment toward sustainable offerings that, in turn, affects the innovation strategies toward climate change.
Casidy and Yan (2022)	Investigating the role of trust as an underlying mechanism through which supplier B2B sustainability positioning influences buyer performance	In highly competitive environments, sustainability positioning help in appealing the prospective buyers. When a B2B buyer believes that the supplier is involved in sustainable operations and products and has low negative impacts on society, the buyer receives greater trust and performance.
Todaro et al. (2021)	Assessing awareness of climate change and perceived exposure to climate risks as antecedents of corporate responses to climate change	Uncertainties posed by climate change limit companies' ability to understand the implications of global warming on business and society. Neglecting climate change risks and focusing on profitability is flawed, as firms will be exposed to greater risk and cost in the future if they don't take imminent strategic actions.
Wright and Nyberg (2017)	Examining how businesses respond to climate change	Despite the grand challenge of climate change risks, corporate actions often regress to a business-as-usual approach. Climate actions are not only driven to respond to regulatory or market risks, but also to address emerging opportunities that are sought through customers and dealt through innovations.
Finke et al. (2016)	Investigating how companies interact with their counterparts to respond to the challenge of climate change	As no individual company has the necessary resources and capabilities to tackle the unprecedented challenge of climate change, collective action at a global level is the key. Inadequate risk management capabilities that fail to internalize the complexities posed by climate change have hindered firms' abilities to become sustainable.
Kumar and Christodoulopoulou (2014)	Providing framework and guidelines for sustainability practices that may be employed to integrating operations and marketing	Firms can use their brands to promote the value of sustainability to their customers and other stakeholders. This may be achieved through branding activities that emphasize the firm's sustainability practices and their impact on stakeholders.

Sheth et al. (2011)	Presenting a framework outlining a customer-centric approach to sustainability	In sustainability matters, customers are a key stakeholder, and issues cannot be addressed without their involvement. Mindful consumption (i.e., caring for self, community, and nature) can deal with the challenges of sustainability.
Sharma et al. (2010)	Developing a broader framework depicting role and focus of B2B marketing in the supply chain for achieving environmental sustainability objectives	B2B firms develop environmental-friendly policies, products, and strategies when customers consciously demand sustainable offerings. Doing so is crucial for achieving superior competitive advantage and financial performance.
Kolk and Pinkse (2008)	Exploring whether and how climate change can give multinational firms the opportunity to develop firm-specific advantages affecting firms' profitability, growth, and survival	Climate change provides a clear opportunity to develop (green) firm-specific advantages that are looked favorably not only by environmentalists and policymakers, but also by investors. To manage the climate change risks, B2B firms may develop cross-sector partnering capabilities with institutions and universities for resources, knowledge seeking, and capability development.
Current study	Proposing an integrated framework demonstrating the important role of B2B brand strategies and how these strategies create customer engagement and value for the stakeholders amid climate change and its pertaining risks. The study also presents guidance on managing climate change risks in B2B setting and presenting agenda for research.	B2B firms should integrate the climate change sustainability initiatives in their brand strategies i.e., value propositions and positioning for customer engagement. The firm, customers, and country contextual factors moderate the effects of climate change risk on brand strategies for direct and indirect customer engagement and generating stakeholder value.

Table 2. Market place evidence for climate crisis addressed for sustainability

Industry	Company	Sources	Climate crisis addressed through sustainability	Sustainability Practices Adapted to Enhance Stakeholder Value	Future Implementation of the Sustainability Policy adopted
Petroleum	Reliance Industries (RIL)	(EconomicTimes, June 2021; Pathak, July 2020)	Climate change, Carbon emissions, Energy Resources	Although RIL plans to remain a user of crude oil and natural gas, but in in attempt to become net carbon zero by 2035, RIL commits to convert it's carbon emissions to useful products and chemicals. RIL has made a substantial progress in photosynthetic biological pathways that convert carbon emissions for the same.	Reliance plans on diverting the liqudity available with RIL to support Jio, Reliance Retail and it's oil to chemical business.
	Shell	(Bloomberg, Feb 2023; EuroNews, June 2023; Guardian, Sept 2018; NPR, June 2023; Shell, 2023)	Climate change, Carbon emissions, Energy Resources, Clean energy	To become a net-zero emissions energy business by 2050, Shell is providing low carbon energy alternatices such as charging for electric vehicles, hydrogren and electricity generated by solar and wind power. Company also uses technology that safefly captures and stores carbon emission. Company works on nature based projects.	There are evidences that suggest that Shell predicted the climate change even before it was a global issue but no evidence regarding policy adoption.
Pharmaceutical	Astrazeneca	(AstraZeneca , 2023; Edie, Feb 2022; Guardian, June 2023)	Zero Carbon emission, supply chain, renewable resources	AstraZeneca has completed the first phase of a trial of inhalers with propellants that boast a near-zero global warming potential.	Astrazeneca also commits to achieve carbon negativity across their value chain by 2030. Astrazeneca has pledged to plant 200 million trees globally by 2030 to combat climate change and preserve the biodiversity.
	GSK	(EPR, Sept 2021; GSK, 2023; Manufacture	Carbon Footprint, Water Conservation, Waste	GSK's sustainable policy aims to reduce the carbon footprint, reduce water consuption in their operations, sustainable water usage,	GSK in 2021 announced to invest 50 million euros in it's UK and US manufacturing sites to secure renewable power generation that

		2030, Nov 2021)	Management, Forest Preservation	managing waste material, protecting the biodiversity through sustainable sourcing.	support it's target of sourcing 100% electricity usage by the year 2025.
Logistics	FedEx	(FedEx, 2023a, 2023b; YaleNews, March 2021)	Carbon Emissions	Innovating operations to reduce evironmental impact. Inestment in establishing the Yale Center for Natural Carbon Capture, where researchers will focus on ways to remove and store Earth's excess carbon. Giving sustainable customer solutions.	FedEx's goal is to achieve carbon neutral operations by 2040. Establishment of The Center for Natural Carbon capture, by FedX at Yale University that will support and accelarate research across academic disciplines, helping to establish a more sustainable and healthier future for planet.
	Nippon Express	(ABBB, June 2023; Logistics ManagerNews, March 2023; NipponExpress, 2021)	Climate change, Carbon emissions, Energy Resources, Clean energy	Nippon Express is working towards reducing carbon emissions and accurately controlling fluorocarbons.	Nippon Express Group has set the goal of reducing 50% SCOPE 1 and 2 emissions by 2030 as a response towards climate change, and contributing to the realization of a carbon-neutral society by 2050
Technology	HCL Techologies	(HCLTech, 2023, May 2022, Nov 2022)	Environmental, Social and Governance (ESG) practices	HCL's sustainability focus is on eco-efficiency, climate change, human capital, local hiring, work environment, sustainable procurement, sustainable impact on clients etc.	HCL is also a part of "The Climate Pledge" that commits to being a net-zero carbon by 2040, 10 years ahead of the Paris Agreement.
	Tech Mahindra Limited	(Business Today, March 2022; SightsInPlus, Dec 2020; Tech Mahindra, 2022, Feb 2020)	Carbon footprint, Infrastructure management, GHG emissions	Tech Mahindra aims to reduce the organization's carbon and water footprint, encourage the stakeholders in adopting green initiatives and practices. It plans on implimenting carbon price mechanism to boost green investment funds, improve the air quality of their campus and enable green infrastructure.	It has joined the "The Climate Pledge" along with other 95 comapnies that have pledged to reach the Paris Agreement 10 years early and become net-zero carbon by 2040. Tech Mahindra has also been recognized as a leader on climate change by the Carbon Disclosure Project.

Table 3. Future research directions.

Research Questions	Research Directions	Rationale and Relevance
RQ1	How can societal trends, such as ESG initiatives, impact brand strategies, customer engagement, and stakeholders' value?	Due to stakeholder pressure, firms are now increasingly incorporating economic, social, and governance (ESG) initiatives into their overall business philosophy (Koelbel and Busch, 2013; Lee and Raschke, 2023). These societal trends are expected to explicitly impact the firms' brand strategies. Exploring the effect will be insightful for managers and policymakers.
RQ2	How would sustainability-related measures imposed by the government alter the business operations and practices, consequently affecting customer engagement and stakeholders' value?	Amid SDG goals, governments and policymakers are adopting regulatory measures against unsustainable practices that adversely impact climate (Catizone, 2022). Regulatory bodies may impose an environmental penalty on a firm for not taking initiatives toward climate change risks which may impact the firm's business operation in the short and long run.
RQ3	How can any country's cultural and economic dimensions alter the response to climate change risk and the introduction of sustainability elements in their business policy and related infrastructure development?	Culture and economic dimensions also play a vital role in customer engagement (Gupta et al., 2018). This study considered firm, customer, and country factors as contingencies in the relationship between climate change risks and brand strategy. Future studies may explore other factors, such as national culture, politics, social norms, and market forces, that can potentially augment our framework.
RQ4	How can a firm's global-level brand strategies mitigating climate change risk and introducing sustainability impact the global value chain and global stakeholder engagement in B2B and B2C contexts?	Sustainability is a common practice of global brands; consequently, they are in a position to foster global customer engagement and value creation through sustainability initiatives (Salnikova et al., 2022)
RQ5	How would greenwashing practice affect trust and customer engagement, especially in diverse cultural contexts? How can greenwashing disengage customer and deconstruct stakeholders' wellbeing?	Companies also greenwash climate change practices (Mateo-Márquez et al. 2022). Hence, dark side of unsustainable brand strategies should also be explored as such practices will have consequences in the long and short terms. Exploring them would be helpful for stakeholders and policymakers.
RQ6	How can a firm's sustainability initiative be effectively communicated to increase stakeholder trust? Also, how can sustainability be converted into an opportunity to ensure profitability?	Considering sustainability challenges are making our societies and ecosystems vulnerable, exploration of the strategic communication strategy can instill faith in

		such practices both at the firm and stakeholders' end.
RQ7	How can multinational firms leverage their sustainability-led brand positioning in the home country to the host countries? Explore whether there is a spillover effect of sustainability initiatives.	Foreign firms can do environmental spillover on local firms (Kim et al. 2022). However, exploring the spillover of sustainability-related initiatives from home to host countries would also be interesting.
RQ8	How can firms collaborate with market and non-market actors in addressing the grand challenge of sustainability and climate change crisis? How can such strategies help in developing a sustainable brand?	Though market and non-market strategies play a role in climate change strategies (Kolk and Pinkse. 2005), our extant review shows a dearth of research on the mentioned agenda.
RQ9	How do the firms from emerging and advanced economies compare and contrast in their firm-level capacity-based response to climate change risk and adopting sustainability vision?	Firms in growth and advanced economies markets differ in their capacity to deal with the climate change crisis. Accordingly, it is critical to compare and contrast these contexts.

Figure 1. Conceptual Framework: Linking climate change risks to stakeholders' value through brand strategy and customer engagement.

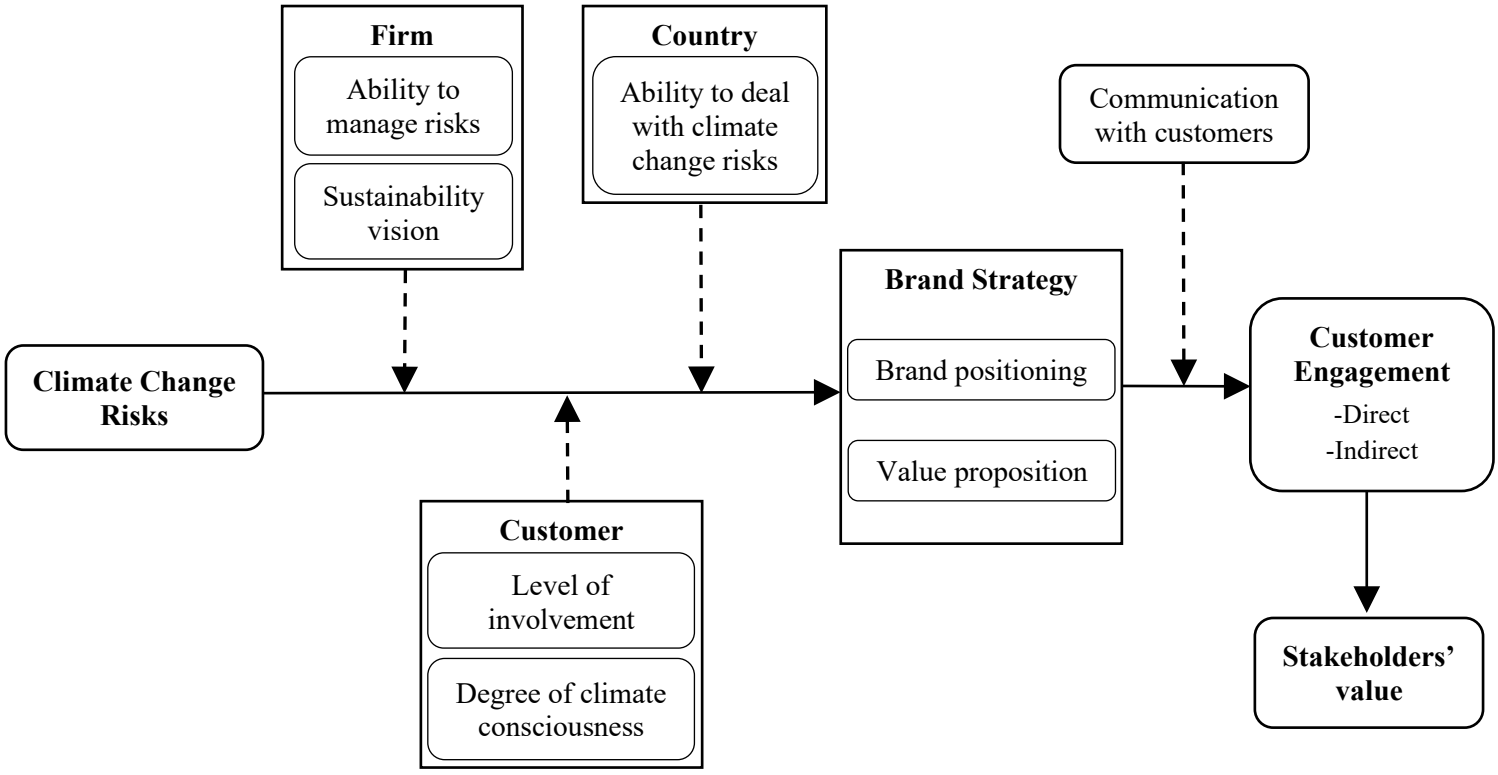
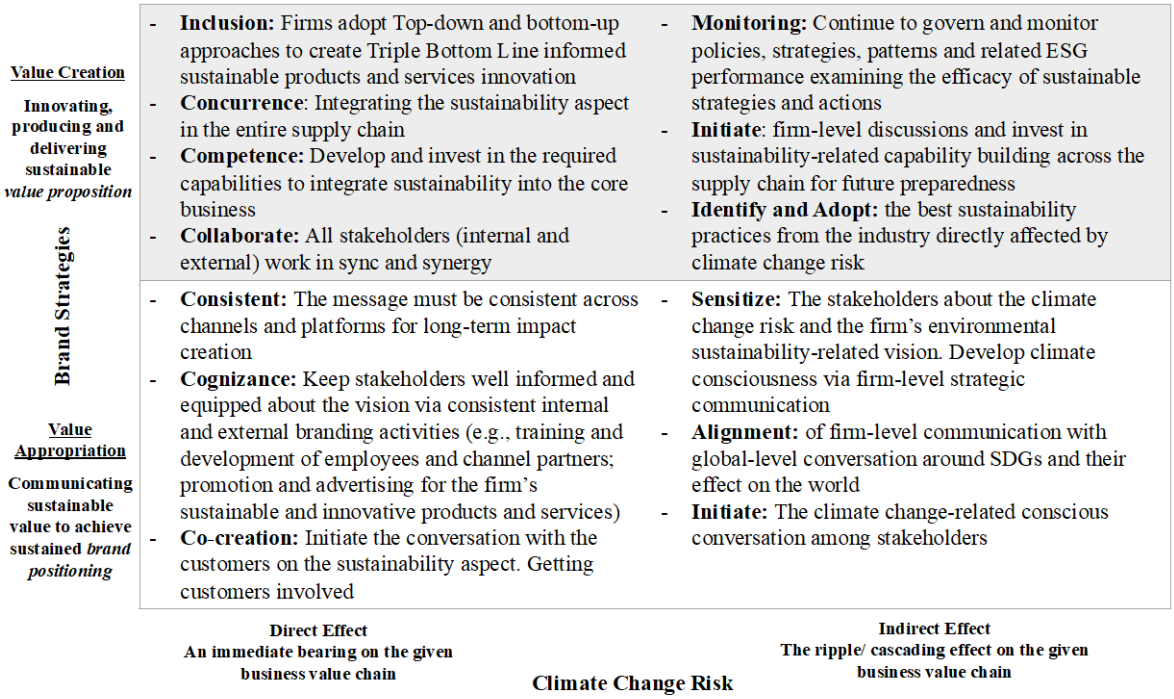


Figure 2. Climate change response strategy matrix



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