Integrating Technology into Corporate Social Responsibility and Crisis Management in the Post-Covid Era

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KEYWORDS
Technology, CSR, Crisis, Crisis Management, Digital Platforms, Crisis Communication, Social Responsibility, Sustainability, Post-Covid

ABSTRACT
This study deals with integrating technologies into Corporate Social Responsibility, and Crisis Management in this post-Covid era. The COVID-19 pandemic brought tremendous changes in society and the corporate world. One among them is the increasing prominence of technologies such as Artificial Intelligence, Cloud Computing, Blockchain, and the Internet of Things. These technologies have now become a crucial factor in the company's CSR implementation, and crisis management. All the successful companies are now relying on the technologies for effective communication, and engagement with their stakeholders, thereby enhancing their transparency, credibility, and reputation. In addition, this study inculcates Industry 4.0, Ecological Modernization Theory, and Legitimacy Theory. Further, The study points out that embracing technology-driven solutions improves the organization's overall efficiency and strengthens the ability to communicate effectively during crises.
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INTRODUCTION

On 11 March 2020, the World Health Organisation declared the novel coronavirus disease a pandemic. COVID-19 has not only affected public health but has also rigorously affected the economy. Some of the major concerns are unemployment and a decline in income along with severe financial and political emergencies in the affected nations (Mishra, 2020) COVID-19 has brought major changes in how companies do their business across all sectors and regions. Companies and individuals have seen the potential of technologies since the beginning of the pandemic. The technologies kept the people connected, and businesses run. It even introduced the companies to better operating models and opportunities to make the business grow and stand apart from their competitors. The key takeaways from the pandemic will lead to innovations and develop business models that are customer-centric, and resilient to navigate future disruptions (Wipro, 2021)

Digital transformation has now emerged as a pivotal approach for effectively navigating the crisis, adapting to newer situations, and strengthening the company's ability to withstand the challenges while maintaining a competitive position. Digital transformation has helped companies increase their resilience and business continuity during the COVID-19 pandemic. Digital transformation, crisis responses, and crisis recovery strategies are interconnected in the post-COVID era and even hold a pivotal role. (Hiziroglu, 2023)

According to the McKinsey Global Survey of Executives, the company has accelerated the digitalization of its customer, and supply chain interactions of their internal operations by three to four years. Additionally, the share of their digitally enabled products in their portfolio has increased by seven years. Further, the funding for their digital initiatives has increased more than the increase in cost, number of customers, and the number of people in technology roles. (McKinsey, 2020). These changes are reflected through the business activities including CSR. Artificial Intelligence and Machine Learning have a significant role in enhancing CSR. The unprecedented challenges induced by the pandemic necessitated innovative approaches in CSR leading to a shift from traditional methods to more technology-driven strategies. AI-driven data analytics have helped in facilitating targeted, and efficient CSR Activities enabling better resource allocation and impact measurement. (Jain, 2024)

LITERATURE REVIEW

The importance of Corporate Social Responsibility and Technological innovations have proliferated over the recent years. CSR and TI are now even considered as the two key fundamental driving forces for sustainable development. Several companies are now incorporating CSR behaviours into Technological Innovation making them committed to spurring responsibilities. The companies are utilizing the capabilities of modern technologies for CSR activities. This indicates that management innovation holds a pivotal role in improving social performance. Additionally, adapting to the latest technologies helps the companies to stay on top, and will also help the customers to stay updated about the products and services. Further, by fulfilling social responsibility the company could consider the demands of multiple stakeholders more effectively leading to a harmonious corporate stakeholder relationship and improved brand image. The companies can be more successful if they keep mutually-beneficial relations based on trust with all their stakeholders who are providing them the knowledge, information, capital, and government support for technological innovation. Along with that, effective CSR engagement helps companies with faithful customers, profit, investors, and financial support. The importance of integrating CSR and technology is on the rise and will remain a meaningful topic in the future considering its potential (Yang, 2024)

Even though the connection between technological development and sustainability is less discussed, the emergence of new technological visions has made a change to this. Modern technological visions such as Industry 4.0 have broadened the understanding of relations between social issues, and technology in humankind. The three main basics of CSR are directly or indirectly connected with organizational technological development and technologies. The studies on the social aspects of CSR deal with the issues of choice the application of technological orientations, and the technologies in the production of goods and services that can eliminate excessive environmental degradation, preserve the natural environment, and prevent the harmful effects on the environment and its participants in the future (Potocan, 2021)

Nowadays, companies frequently rely on artificial intelligence, blockchain, the Internet of Things, and other technologies to enhance the efficiency and impact of their CSR Activities. Integrating digital technologies in CSR helps companies accurately measure their activities, better communication with the stakeholders, and competitiveness in the market. Additionally, digital technologies are changing all economic and social activities and are resulting in the creation of innovative ideas, services, and business opportunities. (Atanasov, 2023)

The integration of Artificial intelligence, and the Internet of Things into the strategies of CSR holds a prominent evolution in the strategic framework of socio-economic systems. These technologies are even considered key factors in the success of the contemporary business landscape significantly with sustainable development. For the deployment of AI and IOT in CSR activities, the digital transformation must align with the strategic management objectives. (Shkalenko, 2024)

Cloud computing can be used for crisis management as it provides services from remote centers that utilize the Internet. It can also contribute to crisis management by facilitating information-sharing among first responders at the different management levels, making emergency notification more accessible to the public. Cloud Computing can also reduce the cost of data storage and recovery. Therefore, cloud computing technology not only improves the current services such as scalability, cost, confidentiality, performance, and security but also provides new opportunities (Abderraouf, 2021)

RESEARCH GAP

This study focuses on two main aspects; Technology and CSR, and Technology and Crisis Management. We are now in the digital age, an era that is led by technology. Technological advancement and digital transformation affect every aspect of our lives. On this note, the main aim of this study is to identify the various technologies that are prevailing in the post-covid era to enhance the effectiveness of CSR, and the importance of technologies in managing a crisis. Even though several articles discuss technologies, the connection between technology, CSR, and Crisis management makes this study unique. That too during the post-covid adds its value.

STATEMENT OF THE PROBLEM

The COVID-19 pandemic exposed the vulnerabilities of the corporate world which included issues related to crisis management, operation disruption, and social responsibility. A digital, and interconnected world demands a modern framework for CSR that goes beyond the traditional methods. Despite the rapid digital transformation induced by the pandemic, several companies found it difficult to successfully incorporate technologies into their CSR, and Crisis management. So, there is a need for companies to leverage technologies to fulfill their social responsibilities in a transparent, scalable, and impactful manner. On this note, this study explores how the technology can be more effectively integrated into CSR and Crisis management strategies with a focus on the post-COVID era.

METHODOLOGICAL FRAMEWORK

Research Objectives	Research Questions	Hypothesis	Methodology
To identify the various technologies to enhance CSR Activities in the Post-Covid era	What are the various technologies that have emerged in the post-COVID era that can be used to enhance CSR activities?	Technologies such as AI, and blockchain hold a prominent role in the post-Covid era in CSR.	Qualitative Analysis using secondary data
To analyze the effectiveness of technologies in crisis management	How are technologies beneficial during crisis management?	Effective utilization of technologies builds corporate trust and mitigates the crisis.	Qualitative Analysis using secondary data

RESEARCH QUESTIONS

What are the various technologies that have emerged in the post-COVID era that can be used to enhance CSR activities?
How are technologies beneficial during crisis management?

OBJECTIVES

To identify the various technologies to enhance CSR Activities in the Post-Covid era.
To analyze the effectiveness of technologies in crisis management.

HYPOTHESIS

Technologies such as AI, and blockchain hold a prominent role in the post-Covid era in CSR.
Effective utilization of technologies builds corporate trust and mitigates the crisis.

THEORETICAL FRAMEWORK

Ecological Modernization Theory (EMT)

Ecological Modernization Theory emerged in the 1980s as a response to the environmental degradation connected with industrialization. The theory states that ecological sustainability and economic development are not instinctively opposed. Modern society can achieve economic growth and ecological sustainability by effectively utilizing technologies and integrating proper policies. EMT also points out that an organization must adapt to advanced technologies as they are crucial in resolving environmental problems. As the business has a pivotal role in ecological modernization the companies need to integrate environmental sustainability into their business strategies by recycling, reusing materials, and adopting greener technologies, Artificial Intelligence, blockchain, and the Internet of Things for accurate and transparent environmental reporting. Further, the theory explains that companies, governments, and society must work together to foster sustainable innovation. By adapting to transparent environmental reporting, innovative business models, and advanced technologies businesses can align their economic objectives with environmental, and social goals leading to both ecological sustainability and company success.

Legitimacy Theory

Legitimacy theory is a key theoretical framework for understanding the concept of Corporate Social Responsibility. The theory states that Environmental performance and environmental reporting are related to each other. Environmental Reporting acts as a key communication channel increasing the legitimacy of an organization from the society's perspective. Better environmental reporting will lead to effective environmental performance in the future. The theory then states that an organization has implicit social contracts with the societies in which they operate. Such social contracts even enhance the motivation of the top managers to follow society's values, norms, and boundaries. An organization can function smoothly and successfully only if it complies with society’s standards and expectations. (Velte, 2023) CSR activities can help an organization in building its brand image, and value. The theory then points out that, legitimacy is constantly changing and is dynamic as societal expectations shift. So, companies must be responsible enough to adjust their CSR strategies to align with society's emerging norms and values.

RESULTS

This study follows the qualitative method of data collection. All the data regarding modern technologies, their integration with Corporate Social Responsibility, and crisis management have been collected through secondary sources such as journals, and websites for easy understanding. Along with that, the study also gives insights into the major benefits an organization receives through effectively utilizing the technologies in their CSR and business activities. Further, this study helps to identify the current and future trends in technologies along with their possibilities in shaping an organization for its own and society's good.

Nowadays, everything around us is based on technology and revolves around a digital and automated orbit. We are now experiencing the fourth industrial revolution, and artificial intelligence and machine learning are playing prominent roles in it. The fourth industrial revolution has the potential to enhance global income and expand the standard of living for the entire population while implementing sustainable development goals. Digital transformation is one of the most indispensable deliverables of the fourth industrial revolution. Organizations are shifting their business models from traditional to digital. Digital transformation can help organizations be socially responsible by supporting the development of sustainable strategies to benefit the economic system and society. Companies can be more socially responsible by effectively utilizing digital and technological innovations to implement strategies characterized by sustainable corporate social decisions. Additionally, the key success factor for incorporating digital transformation into an effective CSR is leadership; an authentic commitment of leaders and managers within the company will help to go through a sustainability-oriented process of change (Diab, 2024)

Some of the advantages of integrating technology in CSR are:

Leveraging Technology for Sustainable Practices: As companies have started prioritizing their social, and environmental responsibilities technologies have become an important tool for designing, implementing, and monitoring CSR Activities making a positive impact. By integrating technologies companies can effectively address social, and environmental issues and improve their business operations, and reputation.

Enhances Accountability and Transparency: Transparency and accountability are CSR's two main critical pillars, which help build trust among stakeholders and showcase the company’s commitment. Additionally, leveraging digital platforms makes communication much easier, creating a sense of transparency and accountability.

Along with data collection, companies now utilize technologies for better monitoring and analysis through IoT, Cloud-based platforms, and data sensors. Collecting real-time data empowers decision-makers to optimize resources for better impact and timely intervention.

Additionally, Integrating technologies into CSR mitigates various risks that can affect the company’s reputation, and business activities as the technology-driven monitoring provides early warning on the possible risks, and facilitates the strategies to mitigate the risks. (Vora, 2023)

This era of technology and digital transformation is not only altering business models and customer experiences but is also revolutionizing organizations' engagement with communities. India being one of the most digitally advanced nations is experiencing a hike in its digital economy. Technologies such as Artificial Intelligence, Blockchain, Internet of Things, and Cloud Computing are surpassing traditional methods enhancing efficiency and productivity. 90% of organizations have embraced digital transformation and this has redefined CSR moving it from a traditional philanthropical model to a strategic, data-driven method. Additionally, technology has revolutionized the way companies measure, and optimize CSR activities giving it a meaningful impact. Artificial Intelligence helps in data-driven decision-making providing precise measurements. Blockchain technology ensures accountability and transparency by tracking and verifying CSR activities in real time, and IoT facilitates the real-time monitoring of environmental impacts. Further, digital platforms help companies to communicate their CSR activities better, and their impact with the stakeholders. A study by the company Deloitte has found that the companies that are focusing on value creation through digital ecosystems have reported an increase of 7% in enterprise value strengthening the importance of transparency for building long-term sustainability (Financial Express, 2024)

Crisis Management is a long-term business development opportunity. Effective crisis management requires coordination and rapid decision-making. According to Elon Musk, “Technology is the greatest equalizer and a powerful tool in managing crisis, whether it's through data analysis, communication, or logistics”. The COVID-19 pandemic has caused multinational companies to accelerate the adoption of digital technologies to continue their business operations and manage any obstacles that may arise. The crisis scenarios require the business to adapt and expand new communication technologies and Innovations. While dealing with any crisis such as COVID-19, there are mainly two types of challenges. It includes battling the disease and mitigating its effects. The Internet of Things, Cloud Computing, Machine Learning, Big Data, and Artificial Intelligence could contribute to resolving the crisis. These technologies have the potential to collect significant results during a crisis. These technologies can benefit the organization with better planning, controlling, and thereby managing the situation. Along with that, the technology can be an aid in advanced crisis preparedness, and productive communication with all the stakeholders during a crisis. (Albakri, 2022) The need for technology cannot be ignored in this present world. It has now become crucial to bridge the gap between technology and crisis management as it will lead to significant outcomes. Quoting Jeff Bezos, "Data-driven approaches and advanced technologies will help predict and manage the crisis more effectively, reducing their impact on the global communities". Technologies such as AI, Big Data, and IoT empower organizations and help them better handle the complexities of contemporary crises. (Khan, 2024)

The Covid-19 pandemic has made the world embrace innovation like never before particularly in the software and ICTS services. Several digital tools were implemented and designed to regale the need for research and innovation. Science, Technology, and Innovation (STI) have the potential to create an environmentally sustainable, resilient, and inclusive future. (Sharma, 2022)

COVID-19 altered the essence of crisis communication, demanding it to be more transparent. The pandemic has shown us that being agile, proactive, and adaptive is crucial during unpredictable situations. Digital technology's role in disseminating information and stakeholder engagement will be greater than ever in the post-pandemic era. Additionally, digital technologies are also considered a platform to shape public perception and build brand reputation. The pandemic has also elevated the importance of human connection during a crisis. This leads businesses to prioritize empathy in their communication strategies to strengthen their relationships with their stakeholders. Promptly addressing public concerns, providing reliable and accurate information, and demonstrating empathy have become significant in building trust. Artificial Intelligence, Data Analytics, Virtual Reality (VR), Augmented Reality (AR), Chatbots, and Social Media are revolutionizing crisis communication. AI helps the company track real-time data making it easier to identify patterns, trends, and potential risks. This allows the companies to proactively address the issue before it becomes a crisis. VR and AR are transforming crisis communication through interactive experiences. Chatbots on the other hand answer the frequent questions of individuals, offer guidance, and direct the customers to relevant resources enhancing the transparency, trust, and credibility of the organization. Further, through social listening, and sentiment analysis the company can monitor social media conversations and understand the public sentiment in real time. (Center, 2023)

CONCLUSION

The novel coronavirus profoundly influences our public health, economy, and the industrial sector. One of the major changes is integrating technology into business activities primarily in CSR, and Crisis Management. Technology has played a predominant role in mitigating the risk of the COVID-19 pandemic and has now become an irreplaceable factor in this post-pandemic era. Technologies such as Artificial Intelligence, Blockchain, the Internet of Things, Cloud Computing, and Chatbots are now ruling our day-to-day lives. The technologies help in keeping business activities more transparent, reliable, and accountable. Additionally, it also makes the companies aware of the issues before they turn out to be a crisis. Further, the companies are relying actively on the technologies for effective communication, and engagement with the stakeholders which enhances their reputation.

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