

Can artificial intelligence (AI) help or hinder corporate social responsibility (CSR)? Theoretical reflection

L'intelligence artificielle (IA) peut-elle améliorer ou entraver la responsabilité sociale de l'entreprise (RSE) ? Reflexion théorique.

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Abstract

As climate change intensifies, more and more companies are embracing sustainable development goals through CSR strategies/actions in order to preserve the environment and safeguard the interests of their main internal stakeholders in particularly employees, and/or their external stakeholders as well.

On the other hand, artificial intelligence (AI) is also becoming widespread in a variety of fields (medicine, education, music and economics). Hence, companies are keenly aware of the benefits of adopting AI, as it offers considerable advantages in terms of competitiveness (cost reduction, quality improvement, better management of delivery times and manufacturing processes, better use of data analysis of both financial and extra-financial reports, etc.).

However, AI is a double-edged sword that has both advantages and disadvantages, and its adoption presents some risks. Hence, our paper aims to respond to the question: Can artificial intelligence help or hinder CSR in social and environmental fields?

Keywords

AI, CSR, Social, Environmental.

Résumé

Avec l'intensification des changements climatiques, de plus en plus d'entreprises adhèrent aux objectifs du développement durable à travers l'adoption de stratégies et d'actions RSE ; afin de préserver l'environnement et protéger les intérêts de leurs parties prenantes internes ; en particulier leurs employés, ainsi que leurs parties prenantes externes également.

D'autre part, l'intelligence artificielle se répand dans une variété de domaines (médecine, éducation, musique et économie). Par conséquent, les entreprises sont pleinement conscientes des bénéfices d'adopter l'IA, du fait qu'elle offre des avantages considérables en termes de compétitivité (minimisation des coûts, amélioration de la qualité, meilleure gestion de temps de livraison et des processus de fabrication, meilleure utilisation de l'analyse des données financières et des rapports extra-financiers, etc.).

Cependant, l'IA est une arme à double tranchant qui présente des avantages et des inconvénients, et son adoption pose quelques risques. Ainsi, notre article a pour finalité de répondre à la question : L'intelligence artificielle (IA) peut-elle améliorer ou entraver la responsabilité sociale de l'entreprise (RSE) dans les domaines social et environnemental ?

Mots clés :

IA, RSE, Social, Environnemental.

Introduction

The adoption of Artificial Intelligence recently has led to huge transformations in many industries and fields, bringing a huge amount of opportunities in different fields such as healthcare, management and finance. However, this new technology raises some critical disadvantages related to ethical and social concerns. The integration of AI in corporations and businesses let us think about the future of CSR that addresses societal and environmental concerns in the era of AI. Hence, a question arises: Does AI help or hinder CSR?

Considerable number of studies emphasizes CSR and its relation to environmental and social issues, while fewer ones have studied the relationship between CSR and AI. As AI spreads rapidly, creating new challenges, it becomes important to study its risks and find ways to regulate it through the CSR principles and frameworks to enable sustainability.

Through this paper, our objective is to study the relationship between AI and CSR so as to be able to respond to the research question pre-cited: Does AI help or hinder CSR? This will enable us to expose the advantages, disadvantages, risks and opportunities of AI adoption and find ways to regulate it, to be able to decrease its risks through CSR.

This paper is organized as follows: Section 1 provides a literature review of AI definitions, and a presentation of its advantages, disadvantages, risks and opportunities. Section 2 presents a literature review on CSR definitions and the scope of stakeholder's theory to CSR. Section 3 provides a literature review on the concept of SRAI as an enabler of CSR through AI. Finally, the conclusion that summarizes the paper and synthesizes its findings.

1. Artificial Intelligence (AI) : definitions, advantages, disadvantages, risks and opportunities

1.1. Definitions of AI

There are many definitions for AI, which means that artificial intelligence's definition has evolved around the time. To start with, we provide the definition of artificial intelligence as it was firstly introduced by John McCarthy in 1956 as « *the science and engineering of making intelligent machines, especially intelligent computer programs* ». (McCarthy, 1956, as cited in Gaga et al., 2025, p. 927). Afterwards, the notion of AI has evolved. For instance, we present the A.I definition provided by the OECD's AI Experts Group (AIGO) that defines AI as « *a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. It uses machine and/or human-based inputs to perceive real and/or virtual environments; abstract such perceptions into models (in an automated manner e.g. with ML or manually); and use model inference to formulate options for information or action* » (OECD 2019, as cited in Yamashita et al., 2021, p. 22). Moreover, Russell & Norvig

(2016) define AI as «*a broad concept that encompasses all technologies and techniques that aim to enable machines to perform tasks that require human intelligence*» (Russel and Norvig 2016, as cited in Chang and Ke, 2023, p. 90). In the same context, according to Zhao (2022), AI can be understood as «*the use of computers to assist, support, collaborate or even duplicate directors' behavior so that the company can function competently, successfully and with foresight in its business environment in the long-term*» (Zhao, 2022, p. 669). In addition, Zhao and and Gómez Fariñas (2023) add that «*AI applications need to be fed with large volumes of data (big data) to perform the stipulated functions or achieve specific goals* » (Zhao and Gómez Fariñas, 2023, p. 11).

1.2. Advantages, disadvantages, opportunities and risks of A.I

As every other technology, AI is a double-edged sword. For instance, we will firstly shed lights on its advantages and drawbacks, to then focus on its opportunities and risks. Among many advantages of AI, we can cite the ability of executing tasks in short amounts of time in comparison to humans, with a higher success ratio and with more efficiency in the capacity of limiting errors and defects (Khanzode and Sarode, 2020). On the other hand, AI application occurs with a number of disadvantages, among these we cite the increase of unemployment and the jobs' affecting, the high cost of its implementation in companies and also the mass scale destruction due to its misuse. (Khanzode and Sarode, 2020)

These are some general advantages and disadvantages of AI. Moreover, we will present, in the following table the major benefits and issues of adopting AI in Management, along with the opportunities that AI offers and the threats it presents as well.

Table N°1: Advantages, disadvantages, opportunities and risks of AI use in Management

Advantages	
Approaching the issues in different ways than humans	The use of a new technology gives different results and solutions, in comparison to humans (Zhao and Gómez Fariñas, 2023).
The use of Big Data	Generally, Big data and especially the use of machine learning that requires a good quality of big data, enables Artificial Intelligence to conduct high quality analysis of data through algorithms. This enables companies using AI to be well positioned compared to the companies that don't. (Zhao and Gómez Fariñas, 2023)
Enhancing decision-making	AI use in the decision-making process can revolutionize it, and enhance corporate performance. In this context, AI offers 3 levels depending on its level of autonomy, which are assisted AI, advisory or augmented AI and lastly the autonomous AI. (Zhao and Gómez Fariñas, 2023)
Disadvantages	

Data Bias	AI is not really subjective, as it perpetuates the existing social and cultural biases leading to unethical decisions especially when it comes to discrimination « <i>against women, black people and minority communities</i> ». (Khanzode and Sarode, 2020, p 17). Hence, we provide concrete example of the « <i>The Microsoft's AI bot</i> » « <i>Tay</i> », to explain the subjectivity of AI; as this AI bot was racist to some users, through the use of Twitter statement, as its basic data. (Perez 2016, as cited in Zhao and Gómez Fariñas, 2023, p 17)
Lack of transparency in the decision-making process	AI based decision-making process lacks transparency. Even if the smart algorithms analyze the data, the process of the decisions remains unclear to both users and developers. This is an issue as it can cause confusion among both users and developers. On the other hand, it also hinders users and developers to detect biases and errors, and also conflicts with the ability to make informed decision-making.(Zhao and Gómez Fariñas, 2023)
AI monopolization	The domination of large companies of data and expertise. This causes barriers to other corporations (Zhao and Gómez Fariñas, 2023)
Opportunities	
Job enhancement	With the advent of AI technologies, it is possible that AI systems in the future are supposed to take over the execution of routine tasks, thus ensuring more productivity to the companies using it. (Khanzode and Sarode, 2020).
Cost reduction	The example of Google is relevant, as it used its « <i>Deep Mind AI system, that enabled it to reduce the cooling bill of its data centers by 40%</i> » (Kaplan and Haenlein, 2020, p. 8)
Ensuring sustainability	As Norway used AI in order to maximize its use of sustainable energy and succeeded to « <i>create a flexible energy grid that integrates more renewable energy than before</i> ». (Kaplan and Haenlein, 2020, p. 8)
Risks	
Job displacement	As AI represents a threat to many existing jobs in the present.
Ethical issues	This is because AI is « <i>a tool that will try to achieve whatever task it has been ordered to do</i> », without knowing if it is ethically acceptable or not, especially when the humans that use it are not concerned with ethics. (Kaplan and Haenlein, 2020, p. 10).
Regulatory uncertainty	As AI is today in its beginning stage, there is a vague and unclear aspect about the rules that will regulate it. (Kaplan and Haenlein, 2020).

Source: This table has been generated by the authors, based in the work of (Kaplan and Haenlein (2020), Khanzode and Sarode (2020), and also Zhao and Gómez Fariñas (2023).

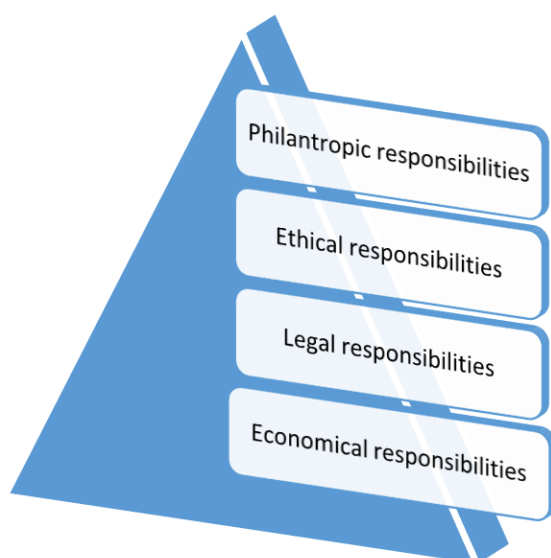
Hence, to overcome the disadvantages and risks of AI, it is mandatory to adopt corporate social responsibility (CSR) to regulate AI.

2. Corporate social responsibility (CSR): Definition and theory

2.1. Defintion of CSR

Corporate Social Responsibility has been defined for the first time by its father Bowen in 1953, to which CSR « *refers to Businessmen's obligations to follow policies, make decisions, or follow directions that are desirable in terms of objectives and value for our society* ». (Bowen, 1953/2013, p. 6). With the institutionalization of CSR in the 1990's, new definitions have taken place. In this context, we cite the definition of the European Commission that defines CSR as « *a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis* ». (European Commission, 2001, p. 6). Moreover, Carroll (1991) introduced the « *Pyramid of Corporate Social Responsibility* » (Carroll, 1991, p. 42). This pyramid aims to enable managers to balance their commitments to shareholders, as well as to the other stakeholders. (Carroll, 1991).

Figure N°1: The Pyramid of Corporate Social Responsibility, Carroll (1991)



Source: Carroll 1991, p. 42

The Carroll pyramid of CSR (1991), presents the four key hierarchical levels that compose CSR; which are economic, legal, ethical and philanthropic responsibilities. These responsibilities represent the hierarchical obligations that shape the business's corporate behavior (Carroll, 1991). In this context, the pyramid starts with the economical responsibilities that constitute the primary historical core responsibility of a business that enables it to generate profits to be economically sustainable to fulfill the other levels of the pyramid. Then, the legal responsibilities according to which the business has the obligation to comply with the law, and operate according to the legal frameworks. After that come the ethical responsibilities that go beyond legal obligations, to

integrate societal expectations of fairness and justice especially towards its stakeholders (employees, consumers, etc) and the environment. (Carroll, 1991). These responsibilities change over time, accordingly to societal transformations and awareness raise towards environmental issues and human rights. Finally we have the philanthropic responsibilities that stand for actions conducted by the business and that go beyond legal and ethical obligations. (Carroll, 1991).

Then, CSR is also defined according to ISO 26 000, as the « *responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that contributes to sustainable development, including health and the welfare of society; takes into account the expectations of stakeholders; is in compliance with applicable law and consistent with international norms of behavior; and is integrated throughout the organization and practiced in its relationships* ». (ISO, 2010, p. 3)

This figure shows concretely the definition of CSR through the scope of ISO 26 000.

Figure N°2: Corporate Social Responsibility, according to ISO 26 000 (2010)



Source : ISO 26 000, 2010, p. 20

2.2. CSR through the stakeholder's theory

According to Schaltegger et al. (2019), stakeholder theory is a theory of business ethics and organizational management. (Mahajan et al., 2023). The origins of stakeholder theory date back to the 1960s. In this perspective, the Stanford Research Institute first proposed the concept of

stakeholder, emphasizing the idea that companies/organizations do not only need their shareholders, but rather all their stakeholders in order to exist and prosper (Mahajan et al., 2023). The relationship between CSR and the stakeholder's theory differs according to the authors' conception. Hence, some scholars affirm that CSR and the stakeholder's framework are two complementary concepts. (Awa et al., 2024; Jenkins 2009; Russo and Perrini, 2010). In this context, both CSR and Stakeholder Theory focus on the need of incorporating social concerns into business operations (Awa et al., 2024). Other scholars argue that, while CSR typically focuses on social and environmental responsibilities, the Stakeholder Theory expands this focus to cover the interests of all stakeholders; these include employees, suppliers, customers, and financiers.(Awa et al., 2024 ; Freeman and Dmytriiev , 2017 ; Zhao, 2021).

Hence, we can compare CSR to stakeholder's theory accordingly to this table.

Table N°2: Comparison between CSR and stakeholder's theory

	CSR	Stakeholder's theory
Definition	According to the United Nations Industrial Development Organization - UNIDO (2019), « <i>Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders.</i> » (UNIDO , 2019 , as cited in Chimezie and Okoro, 2022, p. 235)	The stakeholder's theory is a theoretical framework to CSR, which created a shift by enlarging the interest from the shareholders only to the stakeholders of a company. (Gutterman, 2023). Hence the stakeholders can be defined as « <i>any individual or group that, either positively or negatively, impacts or is impacted by the decisions and actions of an organization</i> ». (GIIRS,2012 ,p.1)
Core ideas	To start with, the main idea of CSR is about ensuring that a corporate is operating in a socially responsible way (Dmytriiev et al., 2021); that extends above the « <i>narrow economic, technical, and legal requirements of the firm</i> ». (Davis, 1973, p. 312). Then, the terminology of CSR places less importance	Firstly, the stakeholder's theory is based in the approach which considers that « <i>businesses should create value for all their stakeholders</i> » (Dmytriiev et al., 2021, p. 4), including the wide and the narrow definitions to the term stakeholders. The wide definition to stakeholders alludes to « <i>those who can</i>

	<p>on small businesses as it focuses on corporates (Dmytriyev et al., 2021). Moreover, there is a growing interest of « <i>embracing CSR as part of corporate strategy</i> ». (McWilliams et al.2006, as cited in Dmytriyev et al., 2021, p. 6). Lastly, the existence of two approaches to the concept of CSR; the explicit and the implicit perspectives. (Dmytriyev et al., 2021; Matten and Moon, 2008). Hence, the explicit CSR represents a voluntary approach to adopt CSR in order to benefit the society like the American model to CSR; while the implicit CSR reflects a response to the imposition by institutions or « <i>at least codified activities based on a social consensus</i> », such as the European Model of CSR. (Dmytriyev et al., 2021, p.6).</p>	<p><i>affect or be affected by the realization of an organization's purpose</i>», whereas the narrow definition refers to « <i>those without whose support the organization would not exist</i> ». (Dmytriyev et al., 2021, p. 4). Secondly, the stakeholder's theory is built on the « <i>integration thesis</i> » which implies the acknowledgement of « <i>the interdependence of economic and ethical aspects</i> » (Dmytriyev et al., 2021, 2021, p.5). Thirdly, the stakeholder's theory is centered around the « <i>principle of fairness</i> » (Phillips 2003,p. 9) and requires reciprocity (Dmytriyev et al., 2021; Phillips 2003) that supposes a bilateral direction of responsibilities from corporates towards their stakeholders and vice versa. (Dmytriyev et al., 2021; Goodstein and Wicks 2007).</p>
<p>Similarities</p>	<p>The three variants; descriptive, instrumental and normative dimensions which are used to explain the stakeholders' theory (Donaldson and Preston, 1995), apply to the CSR theory as well. (Dmytriyev et al., 2021). Hence, the descriptive pillar of CSR shows the different methods of social responsibility management used by corporations in different</p>	<p>In 1995, Donaldson and Preston presented a framework for the stakeholder's theory with 3 principle variants: the normative argument that demonstrates the moral and the philosophical accuracy of the stakeholders' theory; the instrumental pillar which examines and studies the link relating stakeholder management to company performance; and finally the</p>

	<p>contexts (that change accordingly to the diversity of the industries or countries and their specifications), and comparing them. (Dmytriyeu et al., 2021; Muller and Kolk, 2009; Visser and Tolhurst, 2017). Moreover, the instrumental facet to CSR shows that it has« <i>classical liberalism and libertarian laissez-faire as its structural logic</i>». (Mäkinen and Kourala 2012, p. 649). This justifies CSR contribution to competitiveness and fianancial profits. (Dmytriyeu et al., 2021; Flammer, 2013; Tang et al., 2012). Finally, the normative aspect to CSR is deeply rooted in deontology that upholds its philosophical and ethical accuracy. (Chakrabarty and Bass, 2013; Dmytriyeu et al., 2021; Mazutis, 2014)</p>	<p>descriptive facet that focuses in the practical way of application of these stakeholder ideas. (Dmytriyeu et al.,2021; Donaldson and Preston, 1995)</p>
<p>Differences</p>	<p>Accordingly to the fourth variant presented in the work of Donaldson and Preston in 1995, which is the the Social Issues in Management (SIM); they presented the differences between CSR and the stakeholder's theory; through the same three dimensions. (Donaldson and Preston, 1995; Dmytriyeu et al., 2021). To start with, CSR approach presents a different «<i>Perspective on business</i>» (Dmytriyeu et al., 2021, p. 13) than the stakeholder's theory standpoint, as CSR is based in</p>	<p>The work realized by Donaldson and Preston in 1995 presensts a fourth variant; the Social Issues in Management (SIM). (Dmytriyeu et al., 2021; Donaldson and Preston, 1995). Hence, « <i>the common logic of SIM scholarship is our shared interest in understanding responsible behavior by organizations and the people and groups working in and around them</i>». (SIM, 2020, as cited in Dmytriyeu et al., 2021, p. 12). Therefore, the</p>

	<p>the position of society as it « <i>represents a concern with the needs and goals of society</i>» (Eells and Walton, 1974, p. 247).</p> <p>Then, the second dimension is « <i>Beneficiaries of responsibility</i>» (Dmytriyeve et al., 2021, p. 14), as CSR is « <i>an umbrella term that combines a firm's distinct responsibilities to all its various stakeholders: corporate responsibility to customers, corporate responsibility to employees, corporate responsibility to financiers, corporate responsibility to suppliers, and corporate responsibility to communities</i>». (Dmytriyeve et al., 2021, p. 14).</p> <p>Finally, the « <i>Direction of responsibility</i>» (Dmytriyeve et al., 2021, p. 16)</p> <p>; as the CSR has a « <i>one-way perspective</i>» (Dmytriyeve et al., 2021, p. 16)</p> <p>that concerns the responsibilities that a company has towards its society only, neglecting the obligations that society has towards the company. (Dmytriyeve et al., 2021; Goodstein and Wicks, 2007)</p>	<p>SIM is the variant that emphasizes the differences between the stakeholders' theory and CSR approach; through 3 dimensions. Firstly, the «<i>Perspective on business</i>» (Dmytriyeve et al., 2021, p. 13) as the stakeholder theory is expressed from the stand point of the business and its leaders. (Dmytriyeve et al., 2021; Elms et al., 2011).</p> <p>Secondly, the « <i>Beneficiaries of responsibility</i>» (Dmytriyeve et al., 2021, p.14); as the stakeholder theory broadens the corporate management responsibilities to all of its stakeholders. (Dmytriyeve et al., 2021).</p> <p>Thirdly, the «<i>Direction of responsibility</i>», (Dmytriyeve et al., 2021, p. 16) that is presented in stakeholder's theory as a bilateral relationship between the company and its stakeholders based in fairness and reciprocity principles. (Dmytriyeve et al., 2021; Philips, 2003). Hence, corporate has responsibilities towards the society and the society has also moral obligations towards the company as well. (Dmytriyeve et al., 2021; Goodstein and Wicks, 2007)</p>
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Source: This table has been generated by the authors, based in the work of Chakrabarty and Bass (2013), Chimezie and Okoro (2022), Davis (1973), Dmytriyeve et al. (2021), Donaldson and Preston (1995), Eells and Walton (1974), Elms et al. (2011), Flammer (2013), GHIRS (2012), Goodstein and Wicks (2007), Gutterman (2023), Mäkinen and Kourala (2012),

Matten and Moon (2008), Mazutis (2014), Muller and Kolk (2009), Phillips (2003), Tang et al. (2012), and Visser and Tolhurst(2017).

3. The socially responsible AI (SRAI): The enabler of CSR in AI era: Definition and theory

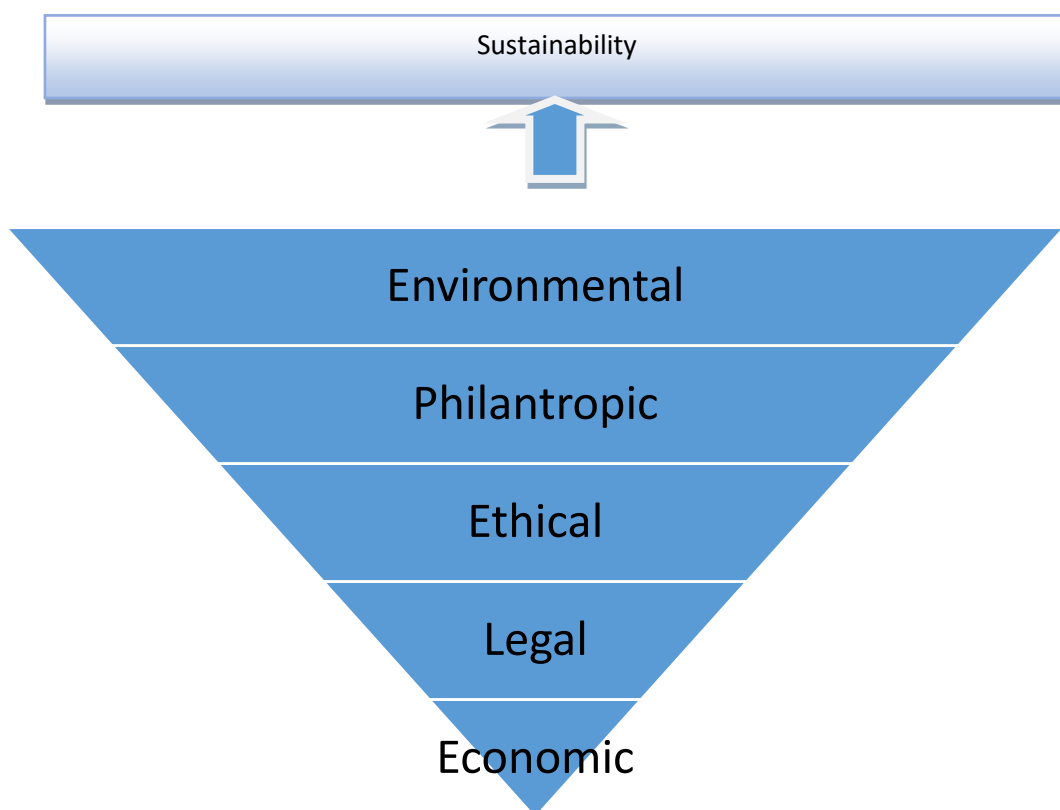
3.1. The Socially responsible AI concept (SRAI)

By regulating AI through the application of CSR approach, a new concept named SRAI appears, that is defined by Chang and Ke, (2023) as an « *AI system that is responsible for the impacts of its decisions and activities on society and the environment and contributes to sustainable development through fulfilling stakeholders' economic, legal, ethical, philanthropic, and environmental considerations and requirements* ». (Chang and Ke, 2023, p. 92).

Unlike Cheng et al. (2021) who defined SRAI algorithms according to Carroll's (1991) CSR pyramid model, and Sætra (2021) who have relied SRAI to sustainability frameworks like Environmental, Social, and Governance (ESG) , and also Di Vaio et al., (2020), who relate SRAI to the United Nations Sustainable Development Goals (SDGs) ; Chang and Ke, (2023) created a new framework incorporating at the same time ; CSR, ESG, and SDGs to foster the explanation of SRAI in order to create more sustainability. (Chang and Ke, 2023).

Hence, being inspired from the CSR pyramid of Carroll (1991), and also by integrating the ESG and SDG's concerns, Chang and Ke (2023) created this inverted pyramid illustrating SRAI (Chang and Ke, 2023,p. 105).

Figure N°3: SRAI inverted pyramid, Chang and Ke, (2023)



Source: Chang and Ke, (2023), p. 105

This inverted pyramid proposed by Chang and Ke (2023), to represent SRAI is formed with 5 levels. The first four layers (economic, legal, ethical and philanthropic) align with Carroll's CSR pyramid, while the environmental component addresses ESG and SDG issues that aren't covered by CSR, so as to enlarge the CSR model (Chang and Ke, 2023).

Firstly, the economic responsibilities that require a robust AI; effective and efficient able to drive the performance of the business functions or activities that use it (Chang and Ke, 2023). Secondly, the legal responsibilities that guarantee a lawful AI; that operates in accordance to the rules laid by law (Chang and Ke, 2023). Thirdly, the ethical responsibilities that enable the right and fair use of AI, in order to prevent harm (Chang and Ke, 2023). Fourthly, the philanthropic responsibilities based in a Human-Centered AI approach aiming to provide an AI ecosystem to address societal issues (Chang and Ke, 2023). Accordingly to ESG and SDG principles; Chang and Ke (2023) included the environmental responsibility in order to create a sustainable AI that facilitates and enhances green practices to reduce bad impacts on the environment (Chang and Ke, 2023); and also the sustainability component through the SRAI-Inclusive concepts which encompasses the SRAI Considerations and Requirements. (Chang and Ke, 2023).

Hence, ESG alludes to the notion introduced by the UN Global Compact Initiative in 2004 that regroups the three principle *«ethical finance pillars, which are environmental, social and governance»*. (UN 2004, as cited in Bilio et al., 2021, p. 1427). For instance, ESG examines the company's efforts on setting up actions in order to reduce its harm on the environment like minimizing its CO2 emissions and its water sources protection, it also evaluates the respect of social aspects such as the human rights' protection and maintaining a safe workplace, in addition to that ESG assesses governance sides including the ensurance of an independent board of administration, and the respect of the shareholders' rights. (Billio et al., 2021). Moreover, Sustainable Development Goals (SDGs) refer to *« an interconnected set of measurable goals designed to address interrelated challenges and achieve global sustainable development »* (Mio et al., 2020, p. 1), introduced by United Nations in 2015 to provide a sustainability framework until 2030 (Mio et al., 2020). The SDGs include 17 goals which are *« No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality , Clean Water and Sanitation ,Affordable and Clean Energy Goal , Decent Work and Economic Growth ,Industry, Innovation and Infrastructure ,Reduced Inequality, Sustainable Cities and Communities ,Responsible Consumption and Production , Climate Action , Life Below Water ,Life on Land, Peace and Justice Strong Institutions , Partnerships to achieve the Goal »* (Mio et al., 2020, p. 3). Furthermore, in 1987 the United Nations Brundtland Commission defined sustainability as *« meeting the needs of the present without compromising the ability of future generations to meet their own needs »*. (Commission on Environment and Development, 1987, p. 16)

3.2. SRAI's contribution to CSR

In the scope of stakeholder's theory, the responsible use of AI contributes to environmental CSR (Yankovskaya et al., 2022) as it helps businesses to overcome knowledge fragmentation , giving employees the ability to understand the environmental initiatives leading to better rationalization of CSR efforts.(Hongxin et al., 2022; Yankovskaya et al., 2022).

Moreover, the responsible use of AI enables teams to have strong environmental values, which improves their capacity of innovation and productivity (Latif et al., 2022; Yankovskaya et al., 2022). On the other hand, the responsible use of AI helps consumers to make informed purchasing decisions, based on sustainability contributing and encouraging responsible consumption (Awa et al., 2024; Ye et al., 2021). It also helps predicting demand for eco-friendly products which leads to lower costs leading to better return on investments (Wut& Ng, 2022; Yankovskaya et al., 2022). For shareholders as well, the socially responsible use of AI brings more transparency enabling them to evaluate CSR effectiveness and make well-informed investment decisions (Hmiden et al., 2022; Halkos et al., 2022; Yankovskaya et al., 2022).

For the usage of SRAI to enhance CSR in social aspect, and in the same scope of the stakeholder's theory Chang and Ke, (2023) provide their results' on the use of SRAI within Human Resource Development (HRD) (Chang and Ke, 2023) , by ensuring that AI is implemented accordingly to legal, ethical, social and environmental principles. Hence, SRAI ensures fairness in employment and employee treatment, preventing discrimination and offering equitable job opportunities. (Calvard and Jeske 2018; Chang and Ke, 2023).

Conclusion

This paper shed lights on an important topic relating Artificial Intelligence (AI) that has become overspread in different fields including management and business, to Corporate Social Responsibility (CSR) that becomes more and more relevant to enable corporates to face the environmental and social issues that characterize the international context around the globe.

Hence, our work addresses the problematic: Can artificial intelligence (AI) help or hinder corporate social responsibility (CSR)?

In response to this problematic, our paper is a synthesis of the literature that emphasizes that CSR plays an important role in regulating AI through the concept of SRAI that helps cut down on the disadvantages and threats of AI while using it appropriately and still benefit from its advantages and the future opportunities it offers.

Accordingly, we started by defining AI, showing that is a notion that evolved over time as it was firstly concerned with creating intelligent machines, to become now centered in achieving goals through analyzing big data. However, despite its relevance as a robust tool capable of enhancing productivity and decision making process (Table N°1), AI presents some disadvantages such as the lack of transparency and the Ai monopolization (Table N°1). Hence, in order to limit the disadvantages and the possible threats of AI and benefit from its present advantages and future opportunities, it is necessary to add a CSR approach in order to regulate AI. Thus, we started by defining CSR, providing its evolutive aspect over time from Bowen's perspective in 1953 to Carroll's pyramid in 1991, and finally its definition from the ISO 26000 standpoint.

On the other hand, we presented CSR through the lens of the stakeholder's theory that is the most relevant theory to study CSR and AI linkage, as AI has to be harmless to the company's stakeholders so as to be qualified as socially responsible. This is why we synthesized the communalities and also the difference between CSR approach and the stakeholder's theory presented in the table N°2. This table shows the communalities through the three variants which are the normative, the instrumental and the descriptive aspects proposed by Donaldson and Preston in 1995, that apply to CSR approach and stakeholder's theory as well. When it comes to the differences between those two theories, we used the fourth variant presented by the same authors which is the Social Issues in Management referred to as (SIM), through three dimensions which are; the perspective on business, the beneficiaries of responsibility, and finally the direction of responsibility. The comparison between stakeholder's theory and CSR approach shows different perspectives in each one of these three dimensions as it was shown in the Table N°2.

Furthermore, for a precised study of the relationship between CSR and AI we emphasize the concept of SRAI (Socially responsible AI) through the inverted pyramid created by Chang and Ke

in 2023. Hence, Chang and Ke were inspired from Carroll's pyramid in 1991, by maintaining the four layers of responsibility (economic, legal, ethical and philanthropic) and added the ESG and SDG's concerns to meet the environmental responsibility and create an AI approach that thrives sustainability. Accordingly, Chang and Ke (2023) applied the CSR principles used in Carroll's pyramid to AI to ensure it is socially responsible and went further by integrating the environmental and sustainability components so as it aligns with these new standards that guarantee sustainability creating a new approach to the SRAI, that renders it possible for all the stakeholders to benefit from AI and limits its harm at the same time. Indeed, the appropriate answer to our research question is that a Socially Responsible AI is the ultimate way to enable AI to serve CSR, as it was shown through the inverted pyramid of Chang and Ke in 2023.

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