

Globalization beyond Business Sustainability, Energy and the Economy of the Future

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Abstract. *Globalization has gradually shaped the world for ages and it has been accompanied by various waves of industrialization. It moved the world and human society from simple energy resources such coal and wood to fossil fuels for industry as sources of energy and to sustainable energy and business, step by step it globalized the energy market, every step is accompanied by energy consumption, so the intensive use of energy has become fundamental in economy. The Global economy has known many challenges, the supply and demand are keys for profit, economy and business. The research questions are how has Globalization shaped business, energy and economy? And how has it shaped the world under business sustainability and the economy of the future? The methodology of research based on literature review, descriptive qualitative and data analysis and applying sustainable value by Hart and Milstein in business to see if there are value to reach. The Results show that there is certainly a need to reduce carbon footprint, and it needs more ambitious visions especially after the recent circumstances, sustainability has not been a priority, the development of artificial intelligence has made business opportunities easier for most companies. The fifth industrial revolution has increased chances towards the economy of the future. In conclusion, Globalization has been a key of innovation and new perspectives for business, energy and economy, the cost of sustainability will need more ways to boost its implementation in the international level, especially for the emerging market, developing countries and low income countries that find difficulties to balance their economies during the transition of Globalization and its impact. Applying a sustainable strategy in businesses lead to sustainable and business values. The main commodities that drive world's industries and productions are still oil and natural Gas. The transition to renewables is still slow.*

Keywords: Globalization, energy, economy, future, business, sustainability, transition, market.

Introduction

Globalization has gradually shaped the world for ages and it has undoubtedly been accompanied by various waves of industrialization. It moved the world and human society from simple energy resources such coal and wood to fossil fuels for industry as sources of energy and to sustainable energy and business, step by step it globalized the energy market, every step is accompanied by energy consumption, so the intensive use of energy has become fundamental in economy. The Global economy has known many challenges, the supply and demand are keys for profit, economy

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and business. Indeed, there are great advances and strides in reducing the harm the enterprises and companies cause to the global environment. So many large companies came up with initiatives to protect global environment and their businesses for a better future but the negative impacts of business activities and industry continue to grow. In fact, it could be cheaper to buy the products that have the most harmful impact on the environment than the equivalent products that are less aggressive to the environment, it is also possible to protect the business profit and money by moving towards a sustainable strategy.

The rise in costs and prices does not just much the needs and purchase power of the customer, the rise in costs has an impact on the planet and environment from an environmental perspective and point of view. The problem is that companies are not always required to take action towards their wastes in the environment or to pay for what their operations in the environment. Since many of the major impacts are difficult even to quantify, their results and costs have remained uncounted.

Mainly, for customers, it is affordable to buy cheap products or products with low prices, not all quality products are cheap since business is business and money is important for both clients and companies. For companies is better to get cheap commodities, increase the number of clients or keep them continuously as permanent clients or followers, for this reason. Selling or buying cheap products, throwing their wastes or starting from the zero always are not the best options to protect the profit and the base of the company, thus the process of sustainability has been a better solution for business perspective. Globalization has come up with different insights for the economy, trade and society whereas it has made it complicated for businesses and companies in various occasions socially, economically and culturally. The appearance or business sustainability has matched what Globalization has made difficult in the three pillars, thus, business sustainability bases on economic, social and cultural aspects. Saving money or protecting the profit is something helpful and very necessary for both clients and businesses to preserve even resources the main thing for economy. In fact, powerful market forces, companies that aim at having permanent clients, profits, resources and business protect have moved towards business sustainability in the era of Globalization processes and challenges following sustainable objects and development goals.

Globalization has led the world with social, economic, cultural and virtual perspectives, AI has been considered on one hand as something very necessary for more speed in life and results, on the other hand it has been considered a threat to the labor market and workforces since it has overcome many obstacles so far and proved that it is able to invade the world with more insights and availability in various areas in the international innovation arena.

Methodology and research question

To start this actual study we set the following research questions “how has Globalization shaped business, energy and economy?” And “how has it shaped the world under business sustainability and the economy of the future?” The methodology of research based on literature review, descriptive qualitative and data analysis.

Literature review

Business sustainability is a key for companies and businesses

Sustainability is commonly defined as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development (WCED) (1987), but nowadays, if a company does not engage

enough in research and development, it may cause the company's long-term value to decrease (Bansal & DesJardine, 2014) making this concept is essential. During the global financial crisis between 2007 and 2009, an increased focus was placed on business sustainability (Rezaee, 2016). For a company to make sustainable choices, it must make sacrifices, particularly over long periods. As a result, businesses are forced to choose between investing less and realizing profits more quickly or investing more and realizing gains more slowly (Bansal & DesJardine, 2014). The discussion on sustainability is also located on various levels, with most sustainable development discussions taking place on a macro level and concentrating on the economy, society, or the world. In contrast, business strategy and transformation discourse are located on the micro level of organizations. (Høgevold and Svensson, 2012). During the last few years, poverty has not been eliminated, even though this is a persistent issue in the 21st century. Inequality is increasing, hunger and malnutrition continue to claim a child's life every six seconds, 1.8 billion people do not have access to clean drinking water and sanitation, and 2.3 billion people do not have access to electricity (Høgevold & Svensson, 2012). Nevertheless, in the latter part of the 20th and early 21st centuries, an evolving study of business operations concentrated increasingly on feedback loops rather than endpoints. This trend continued into the 21st century. In these situations, the effect feeds back to the cause, and accumulating these non-linear operations throughout the various business operations produces complex systems (Sun, Wu, and Yang, 2018).

The concept of sustainable business practices has gone a long way. Since the beginning of the contemporary environmental movement in the 1960s and the establishment of environmental regulations in the 1970s, it has developed into a strategic concern driven by market forces. Today, each company's CEO states that sustainability is essential to the profits and success of their company. Moreover, the European Union starting in 2025, will make it mandatory for companies to report more sustainability and financial data. The first and foremost justifications for the necessity and significance of this reasoning are as follows: we are currently living in a time when there is a greater demand than ever before for enterprises to be environmentally responsible. Moreover, global financial crises have become increasingly devastating in the last few decades, with long-range and poorly understood consequences. This is in addition to broader problems such as "climate change, ecosystem degradation, and poverty, embedded in globally interdependent social and economic institutions." (Hahn, Kolk, & Winn, 2010). It is essential to mention that businesses develop sustainability strategies, sustainable market products, and services, create positions such as the chief sustainability officer, and disclose their performance in sustainability reports to consumers, investors, activists, and the general public (Hoffman, 2018). This type of business sustainability is essential to ensuring businesses can thrive (Rezaee, 2016). Nevertheless, business sustainability is a relatively new concept that has been defined as "the pursuit of a business growth strategy by allocating financial or in-kind resources of the corporation to ESG practices" (Tonello and Singer, 2015). This definition indicates that business sustainability is essentially a process that focuses on the accomplishment of all five dimensions of sustainability performance. (Brockett and Rezaee, 2012; Rezaee, 2015). In this context, sustainability focuses on activities that generate financial, economic, and non-financial economic, social, and governance (ESG) sustainability performance by maximizing corporate governance effectiveness and business opportunities, minimizing environmental and social harms, and, most importantly, securing long-term success in creating stakeholder value (Rezaee, 2016). Developing a sustainable business in the current context of globalization involves several economic, environmental, and social dimensions, and it constitutes one of the goals that any company should consider. Moreover, the concepts of competitiveness and sustainability are mutually reinforcing. Therefore, it is in

everyone's best interest to establish conditions and implement solutions that will enable small and medium-sized businesses to flourish in this respect (Verjel and Schmid, 2015).

Many businesses have recently realized that achieving long-term business sustainability is essential. (Turner, 2009). This is required in the operations of their own company but also throughout the entirety of the market and supply chain network associated with their company. Instead of being viewed as expensive inconveniences, sustainable business practices are necessary to remain competitive (Høgevold & Svensson, 2012). Moreover, when an increasing number of businesses claim to operate sustainably, it will be essential to differentiate between those that contribute effectively to sustainable development and those that merely claim to do so (Høgevold & Svensson, 2012). The Erb Institute at the University of Michigan referred to business sustainability as having two aspects to be considered: Enterprise Integration is based on a model of businesses responding to shifts in the market to increase their competitive positioning. This is accomplished by integrating sustainability into pre-existing business considerations. On the other hand, the next aspect analyzed of business sustainability is called Market Transformation, and it is based on a model of businesses transforming their respective markets. Instead of waiting for a shift in the market to create incentives for sustainable practices, companies are now actively producing such changes to enable new forms of business sustainability (Hoffman, 2018). In conclusion, the sustainability description, the theoretical framework for sustainability, and the practical sustainability standards, performance, and reporting presented in this paper should emphasize the need for global companies and their management, policymakers and regulators, investors, educators, and research scholars to implement this concept in their day-to-day basics and invest more in Research and Development (Rezaee, 2016).

Sustainable value framework helps organizations create value

Stuart L. Hart and Mark B. Milstein, 2003 argued that sustainability can help organizations drive value creation while addressing some of our most pressing challenges. By analyzing their sustainable value and the sustainable value framework, we will try to apply in business for sustainable business.

The vertical axis represents time with the present in the bottom and the future in the top. The horizontal axes represents the organizations with internal perspectives on the left and the external perspective on the right.

According to Hart and Milstein most businesses create and make up value in the four quadrants defined in the matrix below. (See figure 1).

From a just straight business perspective, in the lower left quadrant internally and in the near term managing costs and reducing exposure to risk drive a value for a business. In the lower right externally but also in the near term, making sure a business maintains legitimacy and enhances reputation with external stakeholders creates value too, a business and distinguish and differentiate itself when it has credibility with its stakeholders. Moving into the upper left quadrant, innovating and repositioning itself in light of changing conditions creates value for the business that remains mindful of the need to conditionally create products and services of the future. Finally, in the upper right quadrant the external dimensions of the future performance are addressed, a clear future growth and trajectory creates value for a business by offering new services or tapping into unserved markets. Basically, these four quadrants are one way to define how a business creates value for its shareholders.

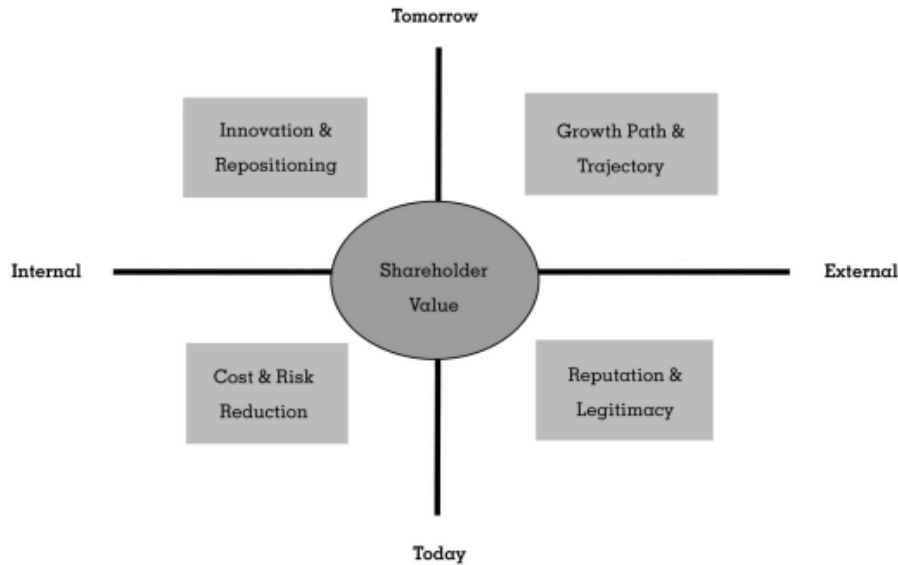


Figure 1 Key Dimensions of Shareholder Value

Source: Adapted from the “Stuart L. Hart and Mark B. Milstein” executive overview 2003
Academy of Management Executive, 2003

From industry 4.0 towards the economy of the future and industry 5.0

Forbes identifies digitalization as the driving force behind Industry 4.0, characterized by several trends, including connected customers, empowered employees, optimized production, and transformed products (Newman, 2022). Moreover, the same publication distinguishes the differences between digitalization and digitization, assuming that an enterprise becomes customer-centric end-to-end, digital transformation necessitates an improvement in the organization's ability to manage change as a whole, making change a fundamental competency by being involved in a digital transformation (Kraaijenbrink, 2022). However, this agility should not be confounded with ongoing digitalization initiatives. These highlight the relationship between digitization and the fourth industrial revolution (Paschek, Mocan, and Draghici, 2019). The word “digitalization” is used interchangeably and can have a wide variety of meanings, some of which are listed below: digital transformation, digital change, digital business processes, digital society, and the digital revolution. The first use of the word "digitalization" can be found in academic writing, where it refers to both the transformation of analog information into digital data and the effect it produces. According to Kohler-Schute (2016), digitalization enables organizations to convert all of the information that enters them into a uniform digital format, to process it electronically in the processes along with the electronic documents, and as a result, to improve their efficiency and flexibility, reduce their process costs, and decrease the amount of time it takes for their products to reach the market (Paschek, Mocan, and Draghici 2019). Also, in terms of the transformation of the business, the term "digitalization" refers to the application of digital technologies in society and industry, as well as the changes that result in the connectedness of individuals and organizations as a result of these applications. The new global economy of the 21st century has brought about profound and irreversible changes to the economic, social, educational, and political environment. These shifts have been brought about by increased globalization. In all of the human experience, there has never been a time when the rate of structural change has been more pervasive, rapid, and global in its context. Globalization, economic liberalization, and the information technology and

communications revolution are the three interconnected forces of the new economy. These three factors interact with one another to create a new economy. The dissolution of national borders resulted from globalization, the expansion of economic integration due to free trade, and elimination of the relevance of territory and time due to the information and communications revolution. In addition, the culture of innovation is the foundation upon which the new economy is based. New concepts, new technologies, and new initiatives are, in a genuine sense, the distinguishing characteristics of the new global economy (Passaris, 2006). Globalization is currently in its current phase, even though it was the beginning of what will happen in the future years, considering that business sustainability and the economy of the future are the product the result of it. (Passaris, 2006).

Globalization and Economic globalization

A working definition of economic globalization is the integration of economies worldwide through increased trade and investment flows and increased production of products and services to improve international competitiveness. The process of accelerating the international integration of markets to produce an integrated global market free of national economic borders is another description that can be encapsulated. More specifically, the financial profile of globalization includes the development of global corporations and global networks (Passaris, 2006). The story of new technologies and the liberalization of financial markets were the driving forces behind globalization. This process has been kept afloat by policymakers' recognition that an open, liberal, and rules-based international dealing and financial system is necessary to expand global economic activity. The new economy now operates on a scale and genuinely global depth. A fully integrated global economic system with tremendous scope and opportunity has been created as a result of the free flow of capital, labor, goods, and services within free trade regions, the development of new financial instruments and institutions, and instantaneous access to information and communication through the latest digital networks. This has led to more international economic interdependence and linkages than ever (Passaris, 2006). Many people refer to globalization as a form of worldwide Westernization. There is significant consensus among several advocates and opponents of the proposal. Those with a positive attitude toward globalization recognize it as a beautiful gift that Western civilization has given to the rest of the world (Sen, 2002). However, is the modern scourge of globalization itself? It is neither novel nor mainly Western. Furthermore, it is not a calamity. Through travel, commerce, migration, the proliferation of cultural influences, and the dissemination of knowledge and understanding, globalization has been a significant factor in the development of the world for many thousands of years (Sen, 2002). Nevertheless, the digitalization and globalization of companies have influenced the following years and were the main reason for sustainable businesses and new economies. Therefore, a business that can discover and foresee forthcoming trends and the associated changes required to accommodate them is recognized as innovative and will succeed in the subsequent Industrial Revolution stage. Therefore, companies should consider the possibility (Paschek, Mocan, and Draghici, 2019).

Artificial Intelligence's incorporation in business and its road to industry 5.0

While the majority of businesses are still dealing with the process of digitalizing their operations through the incorporation of artificial intelligence (AI), the internet of things (IoT), cloud computing technology, and other newly developed technologies are part of the next stage of the Industrial Revolution which emerged and became part of the present. Because of the rapid pace at which new technologies are being developed and new human processes are being integrated,

Industry 5.0 is already ingrained in everyday business. Industry 5.0 is not only the digitalization of the manufacturing process but also solves many problems, such as the need for more available workers and an aging workforce (Pathak et al., 2019). Changes that are both significant and quick are defining characteristics of industrial revolutions. Innovations in the procedure, technology, and new production methods drove these shifts, resulting in significant structural adjustments to the economic and social system. When an industry develops, new technical and technological innovations, inventions, and improvements in products, machines, and technologies are necessary for transitioning to new production techniques. For example, the first industrial revolution was kicked off by a steam engine, the second by electricity and a production assembly line for mass production, and the third by the mechanization and robotization of production thanks to advancements in electronics, computers, and information and communication technologies, in short, was globalization phase (Radic & Radic, 2021). Going back in time, in the 1780s, the development of industrial power derived from sources such as water, steam, and fossil fuels marked the beginning of the First Industrial Revolution. During the 1870s, factories that used assembly lines and engaged in mass production were more likely to favor electrical energy during the second transformation of its kind. The Third Industrial Revolution began in the 1970s and brought the concept of automation to the manufacturing industries through electrical and information technologies (IT). In the fourth industrial revolution, also known as Industry 4.0, the Internet of Things (IoT) and cloud computing create a real-time interface between the virtual and physical realms. This interface type is also called a cyber-physical system. The term "fourth industrial revolution" was not even created until 2011, well after the first three industrial revolutions had already transpired over several hundred years. One of the most important features is the acceleration of the digitalization process, which was spurred on by technological developments such as the Internet of Things (IoT), cognitive computing, and the conjunction of Big Data and Artificial Intelligence (AI). While Industry 4.0, with its technological decentralization and interconnectivity, is still in full mode, its inevitable successor, Industry 5.0, with its complete integration of the human touch in business and intelligent systems, has already taken its place (Mourtzis, 2021). Industry 4.0 refers to the impending transition from the third to the fourth wave of the industrial revolution. (Marr, 2022). Even though many businesses are still putting in much effort to digitalize their operations to achieve the competitive advantages of Industry 4.0, such as scalability, process automation, and improved productivity and efficiency. As a result, of support for flexibility and agility to generate a better customer experience, higher revenues, and increased profitability, among other benefits, many businesses are still putting in much effort (Moran, 2022). The revolution brought on by advances in information technology has brought about significant changes to the structural parameters and modes of operation of most of the world's economies. The transition from the industrial age to the information age has resulted in the reorganization of the working environment, the establishment of new economic institutions, and the modification of the overall structure of the socioeconomic system. The importance of information and communication technology must be addressed within the context of the modern economy. This is especially true regarding the continuously shifting structure of global production. Due to this context, companies are integrating the production and marketing of products and services across national borders. Formerly, international economic transactions were carried out between separate entities. In recent years, this practice has been replaced by internalizing these dealings within a single company or a multinational conglomerate. Establishing new technological infrastructure has allowed services to be uncoupled from production and traded independently or distantly. In today's modern setting, the market for an increasing number of internationally

integrated but geographically dispersed business enterprises is global rather than national or regional. These businesses operate in a contemporary setting (Passaris, 2006). Developing an evolutionary and progressive improvement to Industry 4.0 was the primary goal of Industry 5.0, which aimed to achieve this objective. The concept of collaborative robots, called cobots, was introduced in Industry 5.0. These collaborative robots are the tools needed to satisfy the demand placed on businesses in the modern era to produce individualized products for customers. Human intelligence is integrated into the overall picture by collaborative machines. People, artificial intelligence, and the tangible infrastructure of businesses comprise the cyber-physical system in the fifth industrial revolution (Pathak, et al. 2019) The 5IR can be summed up as the workplace interaction between people and machines. However, it does not describe the magnitude and complexity of the change in which the personalization of human living becomes the primary and dominant interaction process. (Vlačić, 2021). According to Stergaard (2018), the Chief Technology Officer at Universal Robots, the next stage of the Industrial Revolution will be essential due to consumers' high demand for individualization in the products they will purchase in the future (Paschek, Mocan and Draghici, 2019) In order to achieve its goal. Industry 5.0 integrates a human dimension alongside mechanization and efficiency, the two primary tenets that support the foundation of Industry 4.0. Coworkers are a term used to describe humans who perform labor alongside technologies such as robots, intelligent machines, and other forms of technology (Mourtzis, 2021) As a result, increased collaboration between people and intelligent systems such as robots are the main characteristics of Industry 5.0, particularly emphasizing the manufacturing sector. At this point, machines take over all monotonous and repetitive tasks, allowing humans to focus on the creative side of things, where they can take on more responsibility and increased supervision of systems, ultimately leading to an improvement in the overall standard of production (Paschek, Mocan, and Draghici, 2019).

Analysis and results

Globalization is a multifaceted phenomenon that extends beyond business sustainability, energy, and the economy of the future. Although these are crucial to globalization, they are not the only ones. Globalization entails the global integration of economies, cultures, and societies. This integration has implications for various issues, such as politics, human rights, the environment, and technology. Globalization has, for instance, facilitated the dissemination of technology and information, thereby generating new opportunities for innovation and development, emphasizing that the 4th and 5th industrial revolutions are proof of it. In addition, it has led to concerns regarding privacy and security, as well as the possibility of job displacement and inequality. Although business sustainability, energy, and the economy are significant aspects of globalization, a comprehensive comprehension of this phenomenon necessitates consideration of a vast array of issues and factors.

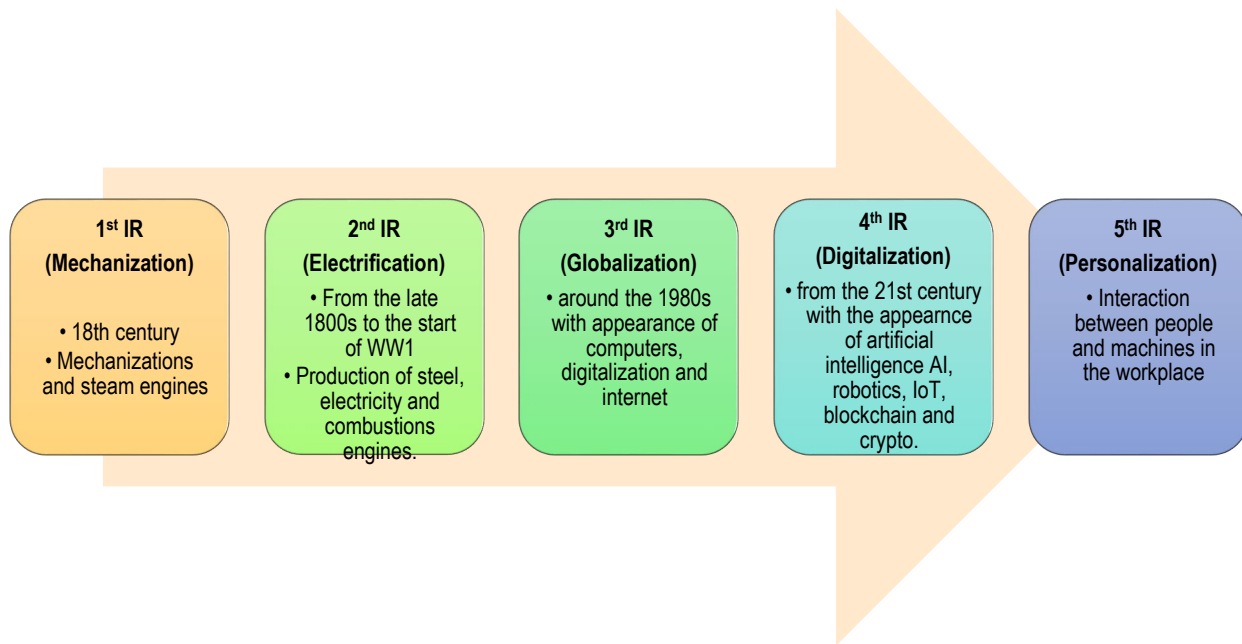


Figure 2 the evolution of industrial revolution (IR) before and after Globalization

Source: authors' design and research, 2023

Globalization and Energy

Energy requires economic stability since it is something very essential for economic growth and the opposite is right. Energy is one the main bases of economy. Globalization has led the world to consume and produce much energy to satisfy the needs of industries and populations.

Historically, energy has gone through different periods and centuries of industrial revolutions, from the first industrial revolution (mechanization and steam engines) to the beginning of Globalization in the industrial revolution until the fourth and moving to the fifth industrial revolution where people and machine need to interact together and for sure that need huge amounts of energy to produce goods and services. In the era of Globalization to produce more, more energy is required and need. Thus, the waste of energy has effected many economies that's why energy transition and sustainability came up to sustain the amounts of used energy and store them for a sustainable use and profit and moving to renewable energies that require more attention since they are expensive to buy or set up. Globalization has created global economy that rely on energy markets, commodity markets and innovations and international trade and competitiveness. (See figures 3 & 4).

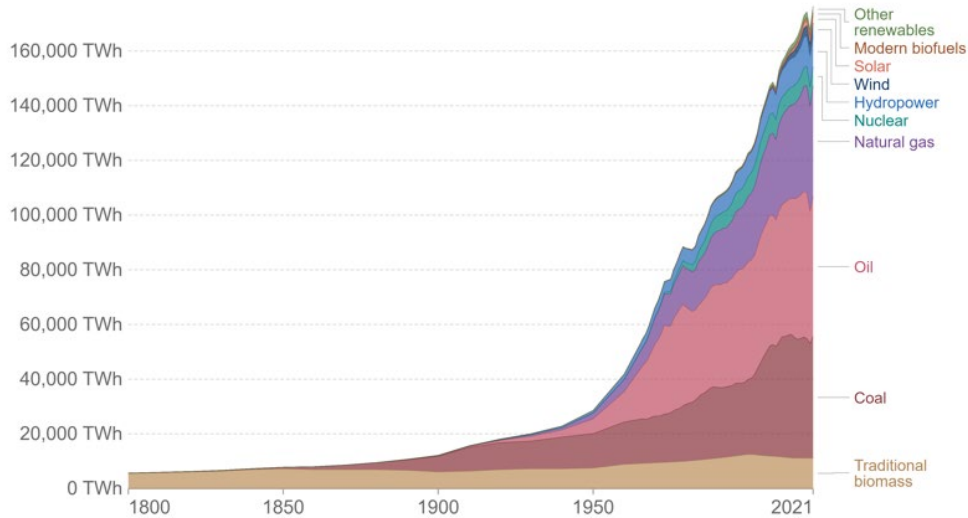


Figure 3 Energy sources' appearance and progress since 1800

Source: Adapted from ourworldindata 2023.

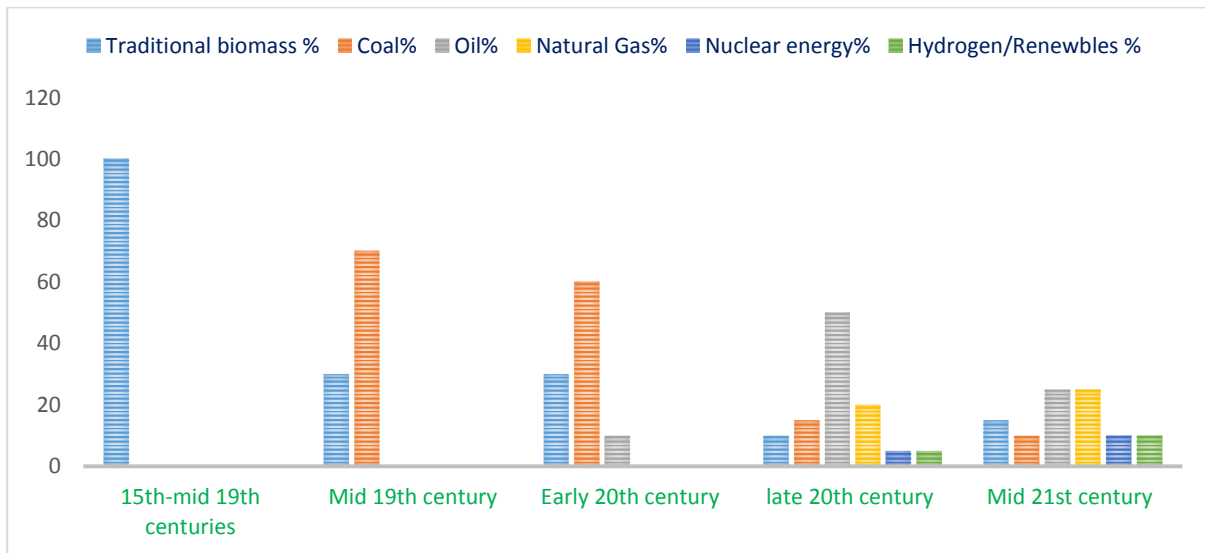


Figure 4 Energy sources' appearance and progress before and after Globalization

Source: Author's creation and research, 2023.

According to OPEC and Statista 2023, the expectations for Primary energy consumption are still high, so, energy consumption will reach roughly 351 million barrels of oil equivalent per day by 2045. The energy source still relies on oil and gas to go on being the biggest contributing energy sources, by 2045 approximately at 100.6 and 85.3 million barrels, respectively. (See figure 5).

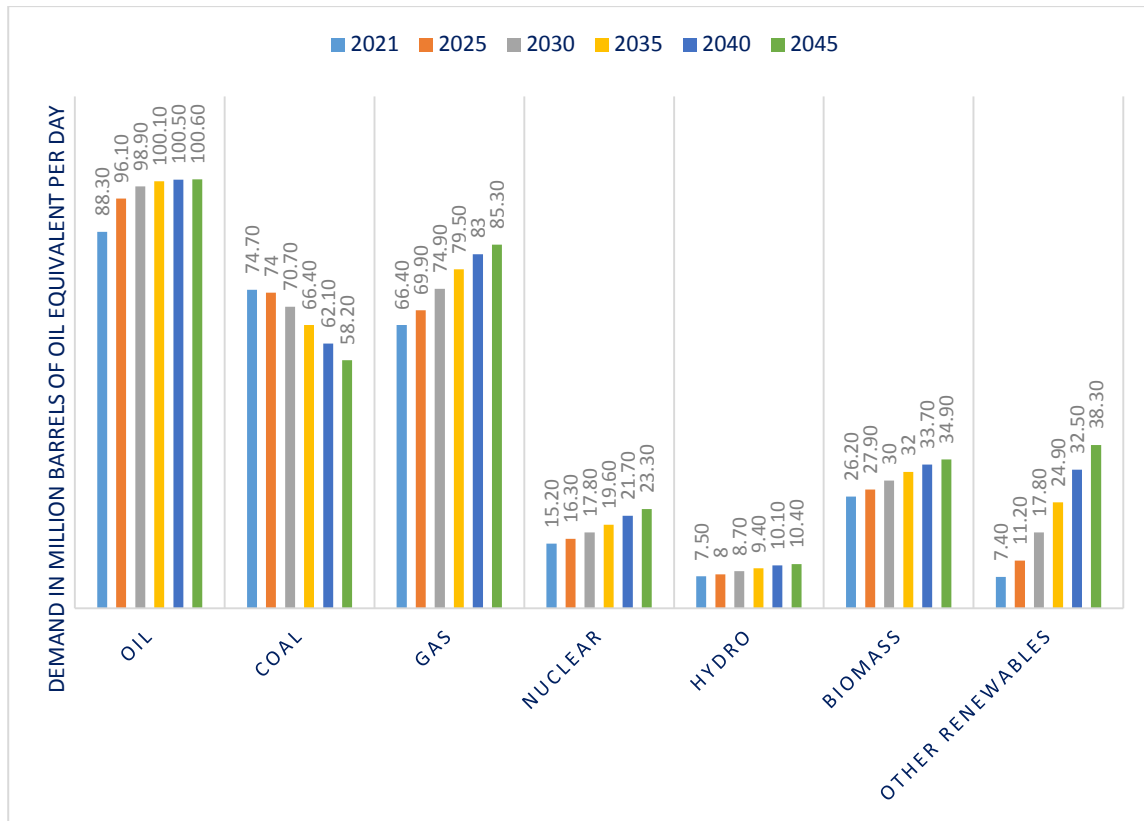


Figure 5 past, current and expected Global primary energy demand by fuel type 2021-2045

Source: Author's contribution 2023, OPEC 2022, Statista 2023.

Capturing sustainable business value by applying the sustainable value framework in business

To help businesses capture the sustainability value proportion and if we apply sustainability in business perspectives we come up with the following strategy. In the lower left quadrant engaging employees to find ways to reduce waste of all kinds and use resources more efficiently can radically lower operating cost, reduce exposure to risk, engage and energize the workforce. In the lower right quadrant engaging with immediate and extended value chain to develop products stewardship and extend the value of products and services can enhance the reputation and legitimacy of a business. Hence, enhancing value creation for the business. In the upper left quadrant applying a sustainability approach can drive innovation and reposition the business by helping it to do develop sustainable competency, identify the skills, products and services that will be required in a resource constrained society. Finally in the upper right quadrant when charting a future trajectory and communicating a vision for the future business can define a clear sustainability vision for itself, thereby, facilitating competitive imagination and providing guidance, regarding organizational priorities. This can help meet unmet needs in turn and identify new markets including those previously under or unserved businesses. As a result, businesses wondering and trying to sure if and how they had better sustainability embed into their business strategy can use this framework to determine their activity in each of the four quadrants, identifying whether there is an unbalance in their portfolio of activities. Where and how the firm has the best position to take action then they can develop a set of initiatives designed to balance the portfolio of activities and create new value for the business while responding to the sustainability challenges. (See figures 1 and 6).

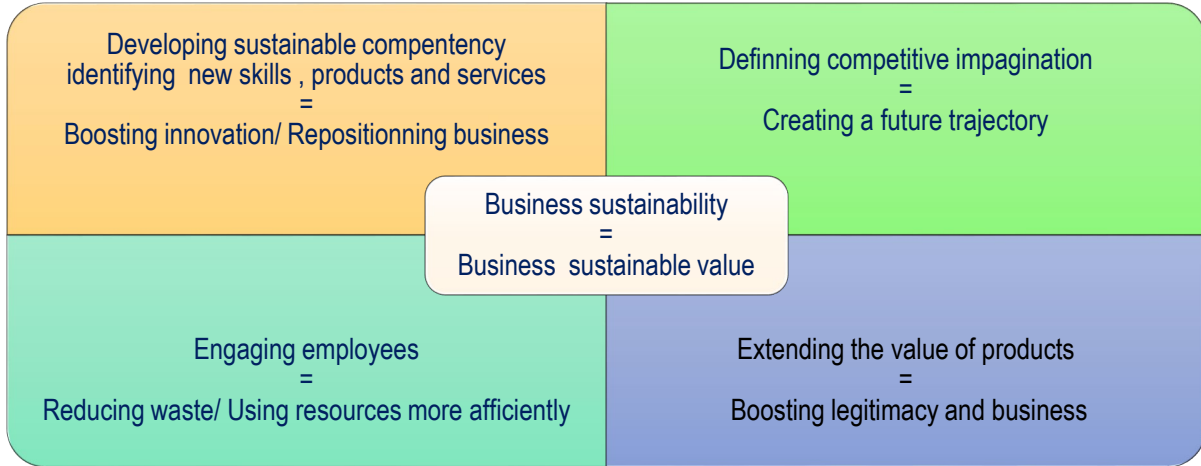


Figure 6 applying the sustainable framework in business for a sustainable business value (Sustainable business framework suggestion/matrix)

Source: Author’s elaboration and contribution.

Energy sources before and after Globalization

When we think about energy sources staring away we think about how necessary they are, main energy sources have been so far coal, oil, natural gas, nuclear, hydropower, biofuels, wind and solar. Back to 1800 traditional biomass was used and considered as a burning solid fuel. Wood was the main source of energy, then with industrial revolution, the appearance of coal raised the importance, around half of the world’s energy (global energy) came from biomass. Back to the 1900s, the world adopted a new series of energy sources oil and natural gas and hydropower, later nuclear energy appeared back to 1960s. Energy transition has not been as fast as the other energy sources, 200 years of global energy sources before the transition to solar and wind energies in the 1980s. Future transitions are still slow towards renewable energy due its high costs and installations. Moreover it is be hard and kind of impossible for the world to give up on the main sources of energy that are main commodities that drive world’s industries and productions of various things that rely on this commodities. In particular oil and natural Gas.(See figures 3 and 4).

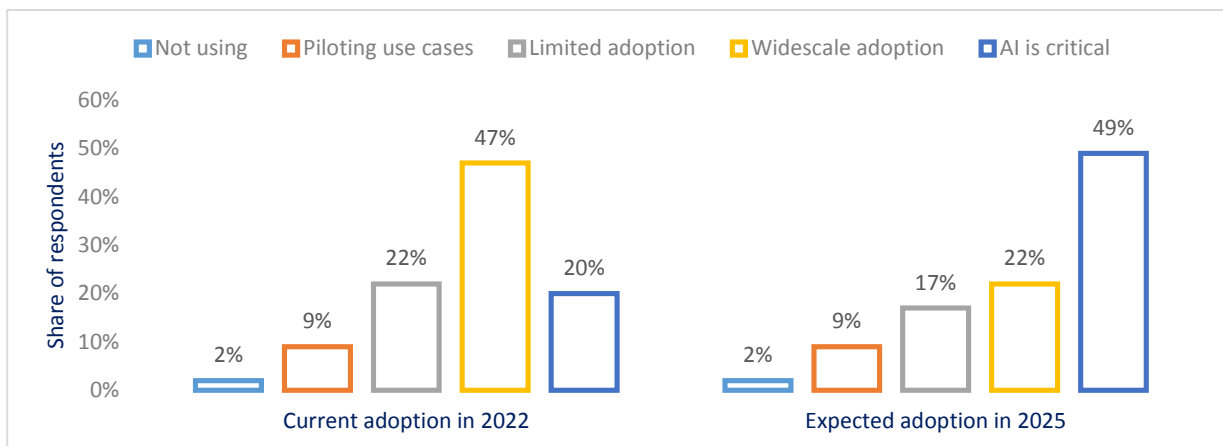


Figure 7 Current and expected adoption rate of artificial intelligence (%) in global IT business 2022- 2025

Source: Author’s contribution 2023, Statista data 2023.

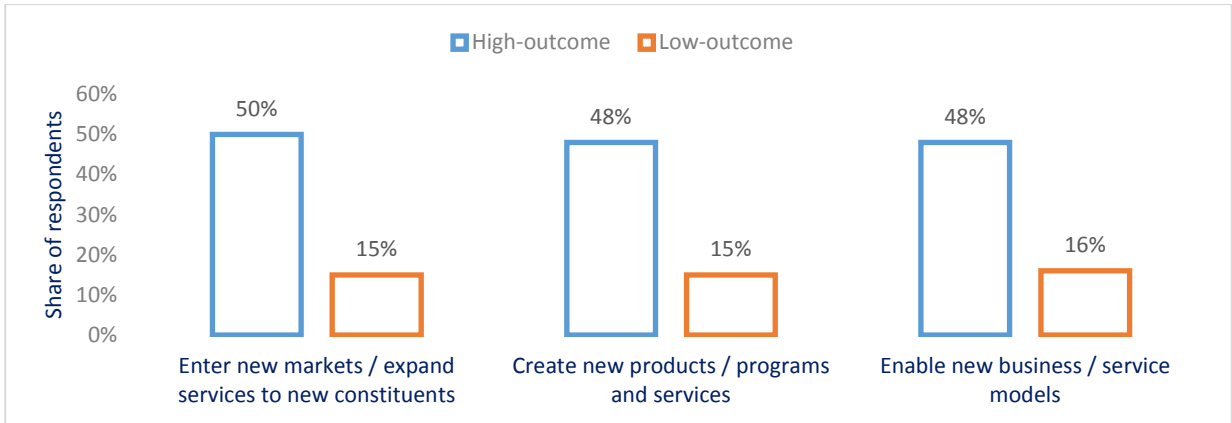


Figure 8 Artificial intelligence (AI) revenue-generating outcomes (%) for global companies (low/high) 2022

Source: Author’s contribution 2023, Statista data 2023.

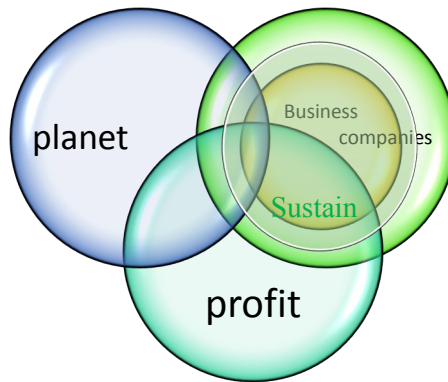


Figure 9 the interconnection bubbles of Globalization (companies, business sustainability, profit and planet)

Source: Author’s design and research 2023.

Artificial intelligence has played a huge role in the move of globalization and the global economy, the whole world rely on the energy of artificial intelligence that has been necessary for production, analysis and security (See figures 7 and 8). By incorporating sustainability in business in companies’ business we contribute to the planet safety by reducing and eliminating carbon emissions in each unit that is produced, the thing that is considered as a main step on the path of companies, it is a challenge but also it could be an opportunity on the other hand it move the company towards a sustainable profit by keep clients and customers. Regenerating energy resources, recycling both energy and waste, new ways in business awareness, marketing and strategy main help the global society to move more towards sustainable Globalization since sustainable business in a main part in the economic sector and economy is a main pillar in both sustainability and Globalization. (See figures 9and 10).

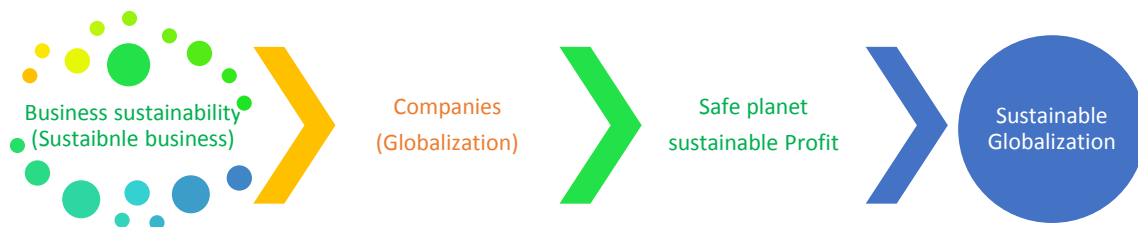


Figure 10 incorporating sustainability in business for a sustainable profit and safe planet

Source: Author's design and research 2023.

Conclusions

Globalization has shaped the world and global society by creating a global economy and a virtual world, it has led to industries 4.0 and 5.0 by focusing on the ability of artificial intelligence that could somehow surpass the human abilities and the economy of the future will rely on the connection between machines and humans, sustainability that is need for business and companies to reach sustainable businesses and companies. Future transitions are still slow towards renewable energy due its high costs and installations. Moreover it is be hard and kind of impossible for the world to give up on the main sources of energy that are main commodities that drive world's industries and productions of various things that rely on this commodities. In particular oil and natural Gas. Globalization has been a key of innovation and new perspectives for business, energy and economy, the cost of sustainability will need more ways to boost its implementation in the international level, especially for the emerging market, developing countries and low income countries that find difficulties to balance their economies during the transition of Globalization and its impact. Applying a sustainable strategy in businesses lead to sustainable and business values. The main commodities that drive world's industries and productions are still oil and natural Gas. The transition to renewables is still slow.

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