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**The implementation of circular economy in an NGO
business model: 2hands Organization's case study**

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ABSTRACT

The ecological crisis has become a topic of everyday life in current times. The world economy has accelerated the transition toward sustainable development, given the urgent depletion of non-renewable resources and recent extreme natural disasters.

It is time to change the current situation with a revolution of the world economic system. Indeed, the circular economy represents the solution to the modern dilemma that has hit the world population and the natural ecosystem.

Everyone has a vital role in environmental change, from people's everyday habits to corporations' strategies and government's decisions. Also nonprofit organizations can represent the role model for the circular economy implementation given their mission-based strategy that can positively influence people and institutions. In particular, 2hands Organization, an Italian not-for-profit environmental organization, best represents how a nonprofit can apply a business model to manage its activities better, implementing a circularity approach to decrease waste generation and efficiently use its resources.

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INTRODUCTION

The circular economy concept has gained more importance in current years due to its positive impact on the environment and the economy. Recent studies have demonstrated that implementing a circular approach on companies' business models can generate several benefits in terms of cost reduction, better use of resources and great results concerning environmental protection. The world economy is characterized by a linear model, which has jeopardized the natural ecosystem for decades. A revolutionary change is necessary to face the current natural disasters, avoiding a pessimistic future scenario for humanity. Indeed, the application of CEBM (circular economy business models) can create strong benefits for the environment, communities and the world economy as a whole. The pioneer of such incredible economic change must be big corporations and also nonprofit organizations as role models in the marketplace. Nonprofit organizations have gained importance in recent years in terms of value creation. Digitalization has allowed spreading more awareness, increasing people' willingness to donate to nonprofit organizations. However, many nonprofits have difficulties growing substantially and increasing their positive impact on communities due to their mission-based business models. Also, in this case, a radical mindset change is necessary to overcome business obstacles, implementing a business model that must not omit the real nonprofit's mission. The scope of this thesis is to accompany the reader across such topics to construct a circular economy business model for 2hands Organization, an Italian not-for-profit organization, which has gained importance at the national level in the environmental protection field.

In the first chapter, this thesis will give a general overview of the transformation of the circular economy concept across history until current times. Furthermore, examples of the circularity approach implementation will be presented to understand how the current world economy has started the green revolution.

In the second chapter, seven major circular economy business models are presented as solutions for companies to apply a different approach compared to the traditional linear one. Additionally, the reasons that obstacle companies to use CEBM will be discussed, focusing on the customer perception toward the circular economy.

The third chapter presents a general situation of the nonprofit sector and suggests how important it is for a nonprofit to implement a business model. In particular, an innovative

Ecocanvas will be presented as a mix of Business Model Canvas developed by Osterwalder and Pigneur (2010) with a circular approach.

Finally, the fourth chapter will construct a business model for the nonprofit 2hands Organization, suggesting strategies to implement a circularity approach within the organization's activities and increase its growth at a national level.

1. FROM LINEAR TO CIRCULAR ECONOMY

This chapter will analyze the historical path that brought to the current concept of circular economy, considered a revolutionary solution to the most dramatic modern question: the environmental crisis. Significant historical events and the continuous development of scholars' literature will be examined to understand how the world has moved from a linear toxic model of the economy to an innovative circular one. Furthermore, practical solutions and circular economy implementations will be analyzed to show how countries have attempted to change the world economy.

1.1 Evolution of the circular economic concept

The Industrial Revolution is considered the turning point that gave birth to the linear economic model, radically changing the world's destiny (Prieto-Sandoval, 2018). Before the Industrial Revolution, industries efficiently managed resources to avoid waste and save money. By contrast, this important historical event altered the way to see the world into a throwaway mindset, laying the foundation of modern society (Lieder and Rashid, 2016). During the 18th century, Adam Smith, the father of the *Invisible Hand*, was one of the exponents of British liberalism. Smith's opinion was that technological improvement was the key force for a nation's growth. Together with other *laissez-faire* theories, this model raised Great Britain as the pioneer country of the Industrial Revolution. Even though this unprecedented event represented the emblem of scientific progress, the downside was the beginning of environmental degradation, which marked human history irreversibly. In the middle of the 19th century, the discovery of steam engines declared the official energy conversion from an organic to an inorganic economy all around the globe, inaugurating an unavoidable human addiction to high-polluted raw materials. Furthermore, the first globalization, favored by a more efficient transportation system, gave birth to an international trade whose leading actor was the UK with its strong economy.

However, Great Britain continued dominating the worldwide scene until World Wars were over, leaving the economic primacy to the US. With the American Dream, the US was raised as the pioneer country of capitalism, promoting a new economic system where the supply could finally meet the consumer's demand. Indeed, the dawn of consumerism occurred in 1950 with the Golden Age of American Capitalism. Private companies were boosted to

increase their productivity, supported by limited state intervention. During this period, capitalism and consumerism gave birth to social class inequalities and environmental issues (Milanovic, 2020). The subsequent phenomena that changed the world economy radically from this stage were welfare expansion, mass production, and mass consumption (Fuchs, 2003).

"You can have it in any color you want, as long as it is black". With these famous words, Henry Ford gave rise to "Fordism", a new concept of business through which the Western's companies could achieve mass production and generate higher wage levels. While on the one hand, people were able to afford higher living standards, on the other hand, waste management started to become a severe problem for countries' economies (Reike et al., 2018). Notwithstanding, during this historical period, governments' main concerns were controlling and decreasing pollution originated by industries.

Furthermore, as the demand increased with the industrial power, globalization and industrialization had a crucial role in the interconnection between individuals in the global economy. For the absolute first time, the environment started to intensely suffer the exploitation of natural resources due to the peak level of consumers' demand from the market (Bonciu, 2014). It is not a case that the first trends of consciousness about environmental issues were born in the US, and the American Government was the first worldwide to make domestic policies in favor of environmental protection. Indeed, the initiator, President Nixon enacted the NEPA "National Environmental Policy Act" in 1970, a policy in favor of the ecosystem defense. In this way, the Government became more present to limit pollution through taxes and fines, based on the "polluter pays" rule.

Furthermore, the '70s are remembered for their struggling historical events. For instance, the oil crisis and the Vietnam war incremented economic difficulties and created social movements worldwide. Groups of individuals and the scientific community raised essential questions about environmental issues, showing the world the dark side of the capitalist economic linear system. In fact, at this historical time, the first theories that put the foundations of the circular economy were developed. Indeed, in 1966, the American economist Kenneth Boulding was the first to question the actual benefits of the linear economy, based on resources waste, suggesting the implementation of a new circular approach. While public opinion became more conscious about the environmental concern, two significant conferences were taken in Stockholm (1972) and Brundland (1988) to discuss

the importance of sustainable development for the society for the first time. At this time, the UN World Commission on Environment and Development's Report formulated the primary definition of sustainable development as "*the development that meets the needs of the present without compromising the ability of future generations to meet their own needs*".

For the scope of this thesis, it is essential to define the concept of sustainability as a pre-condition of circular economic development. The term *sustainability* derives from the French verb "*soutenir*", meaning to hold, to support. The implication is clear. Sustainability refers to a broader concept that spreads a message of long-term beneficial effects for society through education. Instead, the circular economy refers mainly to individual benefits achieved through economic incentives, representing an important factor in implementing sustainable development.

Furthermore, several scholars tried to explore this brand-new interesting matter, creating the first concepts of the circular economy. For instance, Stahel (1982) developed a more complex idea of closed-loop, or spiral loop, economy, following the same footprints as Boulding. Nevertheless, only in 1989 Peace and Turner in the "*Economics of Natural Resources and the Environment*" developed for the very first time the concept of the circular economic model, also denoted as CE 1.0, based on the 3Rs imperatives "*reduce, reuse and recycle*" that had a massive success among the scientific and economic community (Reike, 2018). Since then, the circular economy was subjected to a profound evolution in order to find the best tactic solutions for its implementation in favor of a more sustainable economy. Indeed, during the 1990s until 2010, establishing a connection between inputs and outputs in the production process shaped a more innovative concept of Circular Economy 2.0, which filled some previous gaps in the system (Reike et al., 2018). For instance, eco-design has been considered a brand-new eco-efficient solution for reducing inputs waste in the production process. Furthermore, in 1998, Benyus introduced biomimicry, based on the mimic, so the imitation, of the economic system to the nature to minimize waste through a circular approach.

Even though the scientific community and economists have worked hard to explore this topic further, to find optimal strategies for implementing a circular approach, the world economy still runs in the same direction toward a pessimistic future. In early 2000, digitalization permitted a widespread sharing of information worldwide, investing the society of anxiety about global environmental issues.

Since 2010, this current historical period has been denominated as the Age of Resource Depletion (Reike et al., 2018). While until the 1990s, governments were concerned only about waste management and recycling, during this time, countries are rushing to implement a "greener" economy as a solution *"to improve human well-being and social equity, while significantly reducing environmental risks and ecological scarcities"* (UNEP United Nations Environment Program, 2011). Before examining practical examples of circular economic implementation in the world economy, it is essential to define the divergences between linear and circular approaches.

1.2 Differences between linear and circular economy

Once analyzed the historical path of the evolution of the circular economy's concept, it is more straightforward to understand the main differences between linear and circular economic systems and why it is crucial to implement a circular approach in the World economy.

The definition of the linear economy can be an optimal starting point to recognize the divergences with the circular economy's features. According to the European Environment Agency, *"take – make – consume – dispose of"* is the best definition of a linear economic model, assuming that resources are *"abundant, available, easy to source and cheap to dispose of (...)"* (EEA, 2016). This description clearly represents a utopic model of the world that does not fit reality, jeopardizing the natural ecosystem. The main problem of the linear economic model is that waste management can lead to severe environmental and human health issues. Incineration of waste can provoke the diffusion of residual toxic materials and groundwater contamination, which can, directly and indirectly, produce dangerous illnesses and conditions to the population. When Boulding, in his *"The Economics of the Coming Spaceship Earth"* (1966), considered the foundation of the circular economy's concept, highlighted how the cyclicity of the ecological system works. As natural resources return inside the loop after their use, in the same way, pollution and population misconduct turn back to human's life. Several examples are daily occurrences that clearly express this tragic scenario. According to the International Union for Conservation of Nature, around 8 million tons of plastic are discharged into our oceans every year. This massive amount of plastic generates 80% of all marine debris ingested by marine species causing severe injuries and deaths (IUCN, 2018). Plastic pollution in the ocean is a serious problem for the ecosystem and population health

due to the loop approach of the natural resources in the human food chain. Another serious phenomenon discovered recently in 2020 was denominated as "*Plasticenta*", where the presence of microplastic in the human placenta symbolizes a tragic representation of how human misbehavior toward the environment can generate serious issues.

Furthermore, the accumulation of plastic in the oceans, global warming and the general environmental crisis are generated from another significant source, other than the linear economic world system: the growing population (Camilleri, 2018). Future projection about world population shows extremely concerning data. By 2050 the world will be populated by 9 billion people, with more than three billion belonging to the consumerist middle-class. (McKinsey Global Institute, 2011). Furthermore, based on the 2012 Annual Report of the Global Footprint, which estimates the human impact on nature every year that prevents the natural regeneration of natural land, society has exceeded by 50% the Earth's regenerative capacity (*see Figure 1*). Indeed, these numbers are quite impressive due to the world economy's high demand and subsequent waste management, pollution generation, and other environmental issues. The increase in population makes it necessary to use 1.5 Planet Earth to satisfy human needs (WWF, 2012).

All these impressive data are only a part of a more complex modern dilemma: denying non-Western populations the right to access high living standards is ethically unjust, but allowing this achievement is impossible given the limited environmental resources (Bonciu, 2014).

The circular economy can be the solution to both this dilemma and the environmental crisis. As already mentioned previously, the circular economy's concept has been subjected to several developments based mainly on economic research. Indeed, the nowadays concept of Circular Economy 3.0 has been formulated from a multidisciplinary perspective, considering not only economy and business but also engineering, ecology, and science (Prieto-Sandoval et al., 2018).

When Peace and Turner developed the traditional circular economic principle, based on the 3Rs imperatives "*reuse – reduce – recycle*" in 1989, their choice of using the prefix "re" was not accidental. Indeed, it is the best that communicates the circular economy's idea, from the Latin meaning of "again" or "back". Once resources are used, they come back in a loop system, avoiding waste and pollution. Usually, a standard economic model is composed of different phases: companies take resources and raw materials from the environment, then transform them into a final product, which is finally sold to their customers in the marketplace. Circular

economy introduces a crucial step at this stage, representing an essential innovation in the classic linear system. Once resources are taken from the environment, the circular economy suggests the recovery of goods and materials against the disposal and waste to close the loop between production and consumption (*see Figure 2*). Once the system is circular, reducing waste in the value chain has the substantial advantages of reducing costs and the dependence on non-reusable resources (Sariatli, 2017).

According to the SERI, Sustainable Europe Research Institute, 21 billion tons of inputs that are used in the production process are wasted each year in the OECD countries, contributing to the accumulation of waste, which represents an evident representation of a failing linear system. Furthermore, the pioneer of the circular economy's implementation, the Ellen MacArthur Foundation, has revealed an uncomfortable truth that the current linear economy is losing billions of dollars, and a radical change is necessary. Notwithstanding that public opinion has boosted environmental awareness and implemented a fairer system, the world economy is still far from this crucial step.

Sariatli conducted an interesting SWOT Analysis in 2017 where the comparison between circular economy and linear one has exposed the limitation of the nowadays economy toward the green revolution (*see Figure 3*). Indeed, the results are impressively surprising. On the one hand, the circular economy's implementation will save billions of dollars by eliminating waste from the value chain and reducing virgin raw materials in the production process. On the other hand, countries and companies face many difficulties in enforcing a circular approach. Unfortunately, there are still enormous gaps to be filled in the current system, making the implementation and effectiveness of a circular economy more difficult for those who want to take part in the change. It is essential to re-organize the product's entire life cycle toward a more sustainable production process (Sariatli, 2017).

Furthermore, even though few countries are moving toward a greener economy, such as China and the EU (*see below*), there is still a lack of standards and legal regulation about the application of circular economy. Those gaps in the economic system and other practical issues prevent companies from activating a circular approach in their business models. Considering that companies also face several costs (greener production process, industrial conversion, waste management control, and other essential industry changes), they must also increase product prices, hurting customers and the market. Those economic reasons explain why, nowadays, it is crucial a governmental intervention for the implementation of a circular

economy through economic incentives. The Ellen MacArthur Foundation's 2013 report found out that a circular economy can be the incentive to boost economic growth and attract investors, leading to an increase in the R&D and technological progress in the environmental and industrial sectors. This rationale encourages global economies to accelerate the transition in favor of a circular economic system.

1.3 Implementation of circular economy, the case of China and Europe

In this section, the thesis will move toward a more in-depth analysis of the circular economy's implementation and how the governments have committed to change the world economy toward a more sustainable system.

"The call for a new economic model (the Circular Economy) is getting louder" (EMAF, 2015). In this way, the Ellen MacArthur Foundation has declared the nowadays trend of countries to construct a greener global economy.

In a world where economic expansion meets population growth, the emergency regarding the limitation of resources can be discussed with the implementation of the circular economy. Let us recall the 3R-imperatives "*reuse – reduce – recycle*". Reuse refers to the utilization of waste inputs in several stages of production; reduce represents the minimization of energy and raw materials; and, finally, strong attention must be paid to recycling used materials against virgin ones (Heshmati, 2015). Undoubtedly, a circular economy represents the only practical solution to solve the modern resource management dilemma in the global economy (Bonciu, 2014).

In fact, among the several benefits coming from the implementation of CE, the most urgent one is the minimization of material waste, which has represented the biggest global problem in decades. Furthermore, through a holistic approach, the circular economy can be applied at different levels of production and consumption. Indeed, the application of the circular economy emphasizes the use of cleaner production methods and "*eco-designs*", which are innovative design of the product and product lines to meet efficiency and sustainability in the production process (Heshmati, 2015).

Let us analyze in-depth the main benefits coming from the application of circular economy. First, the circular approach can solve the lack of resources issue and can boost the use of renewable resources, decreasing energy consumption. Furthermore, a circular economy can

be an efficient strategy to remove "green barriers" that hurt emerging countries' competition and international trade. Finally, the circular system can boost investments in renewable energy, which reflects economic saving and health improvement and general society wellness (Vermander, 2008).

According to Ellen MacArthur Foundation, implementing a circular economy would help the EU saving up to 600 billion USD in costs annually by 2025, estimating the creation of 2.8 million jobs with a subsequent positive impact on the entire welfare for the economy and the society (EMAF, 2013).

Even though the literature has incremented knowledge regarding the benefits of circular economy in the early decades, there is still not enough information to support its implementation completely. In recent years, it has become a social trend to be more sustainable in everyday life. Consumers are influenced in their consumption behavior toward more eco-friendly choices, but what about companies and industries, which can be considered the heart of the linear economic system? Even though governments and NGOs are stressing to monitor the circular economy implementation practically, we are still far from the dreamy green world economy. Several entrepreneurs are working hard to take part in the change driven by a corporate social responsibility approach, but the road toward this "green" transition is not straightforward. Let us analyze in-depth the issues regarding circular approach application faced by world countries. First, technology, the engine that drives innovation and sustainable developments, needs high investments, which are not easy to afford. In addition, legislation plays a key role through environmental policies by the imposition of fines and punishments in case of non-compliance. Finally, the government must intervene in supporting companies' initial cost of transition, avoiding higher price pressure on customers (Heshmati, 2015).

At this stage, it is crucial to show practical examples of circular economy implementation of the Chinese and European governments that has influenced the global economy through their environmental policies (Prieto-Sandoval, 2018)

China was the first country to implement a circular economy since the end of the 1990s. Notwithstanding the several challenges, China enacted in 2005 a five-year plan for the development and application of a circular approach in its economy. Indeed, various reasons pushed the Chinese government toward this important decision (Su et al., 2013). It is crucial to underline that an emerging country, as China, faces several economic difficulties. China has

decided to overcome such obstacles through a circular economy. First, Chinese citizens, representing 21% of the world's population, have increased the demand for greater consumption and a subsequent intensification of resources and energy use. Furthermore, due to the Chinese economic boom, which has allocated China as one of the main economies in the world, industrialization and increasing urbanization has put the country in front of several environmental challenges, such as deforestation, desertification, high pollution level, biodiversity loss, extreme high level of CO₂ emission. Finally, as already mentioned, recent international trade regulations, also denoted as "green barriers", have created several economic issues due to the requirement of high investments in advanced technology.

The first city which has been encouraged to implement circular economy's strategies since 2010 was Dalian, the heart of industrialization in China. The indicators used to measure the effectiveness of this implementation are energy and water efficiency and waste management. On the one hand, several initiatives pursued energy efficiency such as the large-scale ban of a high level of consumption energy facilities for citizens and investment in advanced technology for industries. On the other hand, water use efficiency was achieved by a series of price incentives that encouraged water-saving behavior for citizens and companies too. Finally, waste management was pursued by reducing disposal generated by both industries and citizens, encouraging companies to apply the 3Rs principles in the production process, and tracking waste flow in the city through a high technological system. Other than Dalian city, Shanghai and Beijing have moved toward the circular economy's implementation based on the coordination between Government policy, citizens and companies' effort. Since 2005, the Chinese government has enacted several policies favoring the circular economy, which have directly and indirectly influenced its implementation (Yong, 2007). For instance, in December 2005, the National Development and Reform Commission (NDRC) enacted the *Several Options on Accelerating Circular Economy Development* policy, composed of different projects aiming at the promotion of R&D toward advanced technology. Another interesting activity was creating "eco-industry parks", also denoted as industrial symbiosis, where companies were encouraged to participate in a shared infrastructural system, partitioning primary resources such as gas, water, and electricity, in favor of a sustainable production process. Even though China has been the first country to apply a circular economy, several barriers impede the whole country to implement and sustain such an innovative and sustainable approach: weak

legislation and economic incentives, high level of population illiteracy mainly on environmental issues and, mostly, the deficit in advanced technology.

The Chinese experiences have not impeded other countries from trying to implement a circular approach in their economy. Let us analyze the European case.

"In a world with growing pressures on resources and the environment, the EU has no choice but to go for the transition to a resource-efficient and ultimately regenerative circular economy" (Manifesto for the Resource-Efficient Europe, European Commission, 2012).

European Community has accelerated fast the economic transition toward the circular economy. First, the EREP, the European Resource Efficiency Platform, has enacted the *Manifesto and Policy Recommendations* in 2012, listing a series of economic strategies to implement a circular economy with correlated advantages for the EU community. Furthermore, in 2015 the European Commission enacted the Circular Economy Action Plan (CEAP) as a mix of policies that consider several stages of product life cycle through a holistic approach. The CEAP is considered the largest policy made in a single market on the transition toward a circular economy in the world (EMAF, 2020). It is composed of 54 actions aiming at the accomplishment of several challenging goals on different levels, from production to consumption. The main objectives are plastic pollution tackle, innovation promotion and improvement of waste management.

Since 2015, there have been impressive improvements in the European economy, laying the foundations for a global circular economic model. For instance, circular activities have increased their value-added by EUR 155 billion, and job opportunities have incremented by 6% in 2016 (Eurostat, 2017).

Furthermore, the EU Community invested more than EUR 1.8 trillion in favor of a resource-efficient economy, enacting the European Green Deal in 2019.

"To become the world's first climate-neutral continent by 2050" (European Commission, 2020). Such a statement represents the most challenging goal of all times, which will improve the wellness and health of citizens and future generations. In order to accomplish this goal, the EU Community must apply important changes such as food chain remodeling, public transportation system improvement, green energy transition, job opportunities creation and a competitive and greener industry towards innovation and digitalization.

It is convenient to zoom the analysis of circular economy implementation in the Italian scenario. According to the Circular Economy Network, Italy is one of the top countries in

Europe that put its maximum effort toward circular economy transition outdoing France, Germany, and Spain. Other than the already mentioned European policies, to which Italy is subjected, as all the other EU countries, it is important to mention also the most recent Italian Government decisions in favor of a green economy.

As part of the Italian Recovery Fund, the country has invested EUR 24 billion in the “Transizione 4.0” plan (Transition 4.0) to boost sustainable development through tax reduction.

2. IMPLEMENTATION OF CIRCULAR ECONOMY IN A BUSINESS MODEL

This chapter will conduct a micro-level analysis of a company's perspective toward the green transition. Furthermore, this thesis will analyze different CEBMs (circular economy business models) with the corresponding practical examples of famous companies' actual implementation. At the end of this chapter, a reflection regarding the reasons for the non-acceptance of CEBM in the current times will be discussed, focusing the attention on the importance of the customer's power on firms' decisions.

2.1 The business model: from a traditional to an innovative concept

The current fourth Industrial Revolution has been defined as a “cyber-physical system” where people and machines have increased their capabilities with the support of advanced technology. Indeed, the Industrial Revolution 4.0, with its technological progress, represents an essential instrument to carry out the transition from a linear to a regenerative circular model of the world economy (Pavel, 2018). Companies and entrepreneurs are rushing to innovate their business models not only to generate greater value for customers but also to create a new type of economy, where resources circulate “*at the highest value for the longest period*” (Hopkinson et al., 2018). The shift toward a circular economic model is considered a radical change that needs economic incentives and a robust cultural movement as a new way of thinking of the business. In order to implement the circular economy in business models, companies must also rethink other components of the economic system such as the supply chain and the design of products, which enable to reuse of materials in several processes, avoiding the collection and generation of waste.

Notwithstanding, the shift from a linear to a circular approach is not straightforward. Many barriers related to the traditional linear model are not easy to solve, which slow down the transition. Furthermore, the circular economy is not a static system. It needs several actors in the marketplace that take part in a more complex system to recover resources and efficient use of materials (Planing, 2015). Thanks to the constant work of scholars, putting together several currents of thought, it is possible to construct a general framework of CEBMs to be applied by companies. First, it is crucial to understand why companies should implement a circular approach in their business model to achieve a sustainable and profitable economic system.

Let us analyze the central concept of a business model and how the circular economy represents a form of innovation for companies.

There are many concepts of a business model developed by scholars in recent years. Markides (2006) defined a business model as a form of innovation itself, while Teece (2010) described the definition of a business model as the company's core logic on creating, delivering, and capturing value to the customer. Despite everything, the most recent and conventional definition of a business model was developed by Osterwalder and Pigneur in 2010 as "*the rationale of how an organization creates, delivers, and capture value*".

Firms must innovate their business model to capture more value and increase outcomes (Bocken et al., 2016). The implementation of circular economy in business models is an innovation that considers the value creation for customers and environmental and societal wellness. The most important elements of the CEBM are the efficient use of resources and the preservation of several elements in the loop such as labor, energy, materials (Planing, 2015). Indeed, the circularity of resource management is based on two main concepts. On the one hand, the "bio-cycle" establishes that consumable goods return to the natural ecosystem after their use without negatively impacting the environment. On the other hand, the "techno-cycle" considers that durable goods must be designed since their origin to be reused, re-entering in the closed-loop of production and consumption to prevent pollution and wastage (Adam et al., 2017).

Innovation in CEBM is detected with two core elements, eco-designs and reverse supply chain. The former describes the design of products correlated with environmental considerations to create sustainable and practical solutions. While the latter represents the set of activities related to production and distribution system, which must have a positive impact on the environment (Lüdeke-Freund et al., 2019). In order to apply those changes, it is crucial to redefine production inputs that must be replaced with reused or recycled materials. Such reorganization would benefit companies and the entire society by creating new job opportunities since experts and skilled workers must judge these new elements of the production process. Furthermore, the increasing demand for waste would generate the openness of new market opportunities for secondary resources. Additionally, the transformation process must be redefined and redesigned through a closed-loop system of material use and waste elimination. Indeed, it is essential also to circumscribe the value

proposition creation, revolutionizing the entire business model system by reducing costs and negative impact on the environment and enlarging the customer experience.

There are different ways to achieve sustainable goals and the transition from a linear model toward a circular one (Hopkinson et al., 2018). Let us list such innovative business models briefly (See *Figure 4*). Repair & Maintenance business model is focused on the extension of product life, Reuse & Redistribution business model aims at the reselling of an existing product in order to avoid waste, Refurbishment & Remanufacturing use secondary raw materials to create new use of the existing product and, finally, Recycle business model is based on the extraction and interchange of already used resources to create new products. In figure 4, it is possible to observe the hierarchical model of those four ways to implement a CEBM; the larger is the circle, the greater is the effort to use resources efficiently. In addition, there are other business models used in more niche industries: Cascading & Repurposing and Organic Feedstock business model (Lüdeke-Freund et al., 2019). Finally, the Leasing business model permits access to a product or a service for a limited time.

These innovative business models are based on a different way of thinking of a business. Indeed, the concept of ownership has been replaced with the temporary usage of resources that enables the product's use for a limited period, return materials in the closed-loop, and create an effective reverse network (Planing, 2015). Also, the goal of this kind of innovative business model is to redesign the production process of goods and services from a new perspective based on cost minimization, profit maximization, and the development of a sustainable company's ecosystem (Raj et Aithal, 2020). Notwithstanding, the best implementation and success of CEBM depend on the ability of managers to spot opportunities from reused assets or recycled materials in order to create higher value for customers (Hopkinson et al., 2018).

As already mentioned, the circular model is crucial to overcome the traditional linear model, focused on "make-use-dispose", bringing a wave of innovation and hope for the future. The regenerative approach of the circular model for both processes of production and ownership is the emblem of wellness for the organization and society (Raj et Aithal, 2020).

2.2 Circular Management

As already mentioned above, implementing a circular approach in business models requires a new way of interpreting the world of business. Managers play a key role in making certain

decisions driven by economic, societal, and environmental motives. Indeed, the enforcement of circular management is crucial to incorporate both sustainability and economic stability in the business, taking into account four main elements: resources, policies, processes and practices. According to Raj and Aithal (2020), the concept of circular management can be defined through a function $CM = f(rs, ps, ps, ps)$ where “rs” represents scarce resources, “ps” stable and sustainable policies, “ps” stable and sustainable processes, and “ps” is related to stable and sustainable practices. Circular management aims to redefine the business by introducing circular thinking completely. In this way the company must redevelop its core policies, processes and practices in order to reallocate scarce resources. Against the traditional linear model, which takes for granted that resources are unlimited and easy to recover, this circular model has the purpose of using resources efficiently to avoid waste of materials and energy. Actually, through circular management, managing key resources such as land, labor, capital, and entrepreneurship is essential to reallocate them in the most efficient way (Raj et Aithal, 2020). Indeed, companies, through CEBM, can implement four main stages of circular management composed of the creation and sustaining of a cyclical model, but also the destruction and regeneration of resources to close the loop and avoid waste collection.

2.3 In-depth analysis of seven important CEBMs

2.3.1 Repair & Maintenance Business Model

In this type of business model, companies must consider the importance of life extension of products to avoid unused stockpile goods. Through this “long-life product” business model, an increasing life cycle of goods and their components is expected through services and sustainable product design, enabling assembly and disassembly of product elements for a successful reparation and maintenance.

The value proposition of this business model is to educate customers in a novel attitude to repair products, promoting a new concept of no-disposal of damaged or unused products in the marketplace. Furthermore, the target segment is mainly represented by private customers, who are enthusiastic about the DIY (“Do It Yourself”) attitude of repairing goods on their own. The value delivery is characterized by an incremental long-term relationship between the firm and customers through this business model. Indeed, the Repair &

Maintenance model has a robust customer-centric approach because it is important to spread knowledge about repairing processes among clients. Furthermore, the circulation of experiences and tips through customers on how to repair a product with a “DIY” mindset enables creating communities of people, increasing the attachment to the company and awareness of environmental issues (Adam et al., 2017).

From a customer perspective, the value proposition, based on the extended use of the product through services such as repair and maintenance, can increase their willingness to spend more money for a more valuable and durable good. Furthermore, this new trend among customers would discourage purchasing a brand-new product, reducing the use of virgin materials and the consequent waste generation (Lüdeke-Freund et al., 2019).

From a business perspective, repair and maintenance services play a key role in reaching competitive advantage through differentiation strategy and long-term customer relationships. Besides creating customer loyalty, firms can also increase their network of market actors in the circular economic system. The increasing number of channels among the firm and stakeholders can also set standards for implementing such a business model to decrease initial costs and influence customers purchasing behaviors in favor of more sustainable ones (Hopkinson et al., 2018). Furthermore, this innovative business model will create a new market and job opportunities for workers and third parties or “gap exploiters” who can charge fees for repair & maintenance services.

On the other hand, the company itself can offer such services by charging a premium price on the products to face costs for both warranty and insurance. Thanks to this robust service system, firms establish a stable relationship with clients by signing a service contract and promising high quality of repair and maintenance for a given period, creating a positive brand reputation (Lüdeke-Freund et al., 2019). Furthermore, the price premium imposed by the company to meet initial costs can be justified by high quality and long-lasting products to overreach the lower sales. Indeed, this business model can be interpreted as a manifesto against the “planned obsolescence” which characterizes the nowadays market, where firms intentionally decide to make a product useless after a given time, increasing consumerism and waste accumulation (Bocken et al., 2016).

Patagonia is the best representation of Repair & Maintenance business model implementation. “*We’re in business to save our home planet*”, with these words, the clothing company has declared its goal to fight the environmental crisis on its official website. Indeed,

during the 2011 Black Friday, Patagonia showed off an unconventional marketing strategy with the “*Don’t Buy This Jacket*” advertisement in the New York Times, spreading concern about business ethics and environmental awareness to the entire world (Patagonia, 2011). With its program *Worn Wear*, the company has established the core of the Repair & Maintenance model. Indeed, customers can download a practical online guide for a DIY repair of any damaged Patagonia’s clothing. If the repair is too challenging for customers, they can bring clothes to the nearest Patagonia shops and get the repair for free, unless the damage is severe. Additionally, customers are also encouraged to give back their old Patagonia’s clothes in exchange for credits for their next purchase.

2.3.2 Reuse & Redistribution Business Model

This innovative business model enables direct access to already used products to reuse and redistribute them in the marketplace. The value proposition is based on the possibility to purchase a product at a lower price for more extended life usage. Indeed, the target segment comprises price-sensitive customers and environmental conscious ones, which are highly influenced by the product price and make sustainable decisions in their purchasing attitudes (Adam et al., 2017). The launch of an already used product also creates new market opportunities for "market makers" who participate in this innovative system.

From a customer perspective, the Reuse & Redistribution model represents an opportunity to have a broader range of product choices at a lower price. Despite all, there is still a widespread negative consciousness about second-hand products, which are usually considered low quality and low standard performance. Actually, this business model aims to dismantle this preconception to open customers' minds in favor of the second-hand product market, representing an opportunity to relieve customers' wallets and positively sustain the environment.

From a business perspective, this business model is capital-intensive and time-consuming due to several costs, such as hiring experts to evaluate products for quality and damages. Furthermore, another way to implement such a business model, which requires additional costs, is creating a second-hand corner in shops for selling used products and collecting unwanted ones, reselling them at a discount. Even though companies face initial costs, on the other side of the coin, profits increase with the boosting of the second-hand market, which

enables firms to reduce the cost of virgin material production and energy usage and increase the customers' traffic in retailer's stores (Lüdeke-Freund et al., 2019).

In recent decades several e-commerce platforms such as eBay, Depop and Vinted have boosted the second-hand market through online shopping. Let us analyze the clothing retailer Vinted that has gained a great market share mainly during the 2020 pandemic when online shopping has reached great intensity never registered before. Vinted represents a wave of innovation in the fashion industry, which is conventionally one of the most polluting. Indeed, the company permits to sell any kind of used clothing across several countries. According to Vinted business model, customers take part in the system by selling their old clothes with the minimum effort, which are redistributed to other owners worldwide. This platform has created a network of customers that enjoy taking part in the change sustainably and fashionably. The youth's participation represents the reason for its success, also denoted as "green generation", composed mainly of Generation Y and Z, making second-hand products a fashionable trend.

2.3.3 Refurbishment & Remanufacture Business Model

This business model is also denominated as "extending product value" model where the residual value of products is used in the most efficient way. The value proposition is the creation of a "brand-new" product through services such as refurbishment and remanufacturing of damaged or unused goods. In this case, the target segment is composed of price-sensitive customers since the more is remanufactured a product is, the lower is its price (Lüdeke-Freund et al., 2019).

From a customer perspective, the target segment can participate with the minimum effort to the system by donating end life products or selling them back to retailers in exchange of an economic compensation. Boosting this brand-new market, customers can choose among plenty of products at cheaper (Bocken et al., 2016).

From a business perspective, firms must establish a reverse logistics which enables to receive used products or their components from customers that form an integral part of the system. The main costs faced by companies are related to the technical expertise to refurbish or remanufacture products. However, businesses save money by reducing the cost of virgin material production, receiving free resources to remanufacture a product at same quality or even better than before. Furthermore, firms participate in a huge system where

collaborations among market actors (retailers, stores, customers) are crucial to implement such a business model.

Ricoh is a leading company in the copier and printer market that gained huge advantages by applying the Refurbishment & Remanufacture business model. Indeed, the company has created a well-organized system that uses developed technologies to refurbish used products reselling them at the same quality for cheaper. For Ricoh, this business model is highly convenient due to the decrease in virgin material use for the production process, saving enormous money and energy consumption. This example of a big international corporation, like Ricoh, represents how efficient can be the implementation of a circularity approach-based model.

2.3.4 Recycle Business Model

This "waste-to-value" model adopts a circularity approach by recycling damaged or unusable products, giving a second life to waste. Indeed, sobering research has estimated that around 80% of the product's components can be recovered, recycled, and re-used in another way (Adam et al., 2017). This model's value proposition enables to collect obsolete goods, which otherwise would be wasted, making the disposal of them a reusable input to generate greener products for final customers. Indeed, it is possible to convert used materials into lower value ones through the down-cycling recycle model or create higher-quality materials through the up-cycling model. The target segment is composed of those customers who are sensitive to environmental issues but also price-sensitive ones.

From a customer perspective, they would receive financial incentives for disposing of waste by retailers or points of collection of garbage. Furthermore, it is more convenient and less time-consuming for them to dispose of waste in shops that are geographically closer to their habitations than a point of garbage collection which is usually located in the landfills.

From a business perspective, this model is a reversed retailing based because the retailer turns upside down the supply chain selling the waste collected by customers to the manufacturer at a higher price. In this way, for the manufacturer, which becomes the actual customer of this innovative system, it is more convenient to re-use product components rather than create new ones with virgin material, requiring higher costs and energy consumption.

For instance, in the metallurgic industry, the quantity of energy required to melt down an existing metal is reduced by 95% compared to the energy used to create a brand-new one.

The positive impact of this model is the substitution of virgin material with recycled ones, which reduces cost, differentiates products, and creates new market opportunities (Lüdeke-Freund et al., 2019). Notwithstanding, even though this model is considered the best one for its environmental benefits, it is not easy to implement. First, recycling is a capital-intensive and, mostly, energy-consuming system. Additionally, it requires scientific knowledge on efficient product design, molecular components, and chemical proprieties of materials, which enables recycling better products.

Once it becomes widespread diffused, this business model can enlarge a potential market opportunity due to the increasing value of waste. The more is the value per volume of waste, the more is convenient to implement this model (Adam et al., 2017). There are many ways to apply this "closing the loop" business model, which distinguishes recycling from the other models as the most extensive for several uses. The primary recycling is related to the "closed-loop" process, where mechanical processes are used to improve the properties of materials. Then, secondary recycling or downcycling is the set of processes through which materials are transformed at a lower value than the original one. Furthermore, tertiary recycling is correlated to chemical or feedstock, where mechanical processes are used to recover chemical components of materials. Finally, quaternary recycling is related to energy recovery from materials (Bocken et al., 2016).

Ogyre, an Italian company, is a clear representation of the recycling business model that produces marine litter-based swimsuits. Indeed, Ogyre collaborates with several NGOs to collect plastics from the sea, transformed into fashionable and sustainable swimsuits. Furthermore, a certain percentage of profits is devolved to finance fishing boats that must collect plastics and marine litter to clean the sea from pollution. Ogyre's mission aspires to protect the environment and give plastics a second life, mixing an economic and social purpose.

2.3.5 Cascading & Repurposing Business Model

This peculiar business model takes back the biological nutrients contained in waste and end life products through several biological processes and ecological principles, transforming them into inputs and products. The value proposition's motto for this business model is "Waste is Food" composed of the transformation of natural inputs into energy, which otherwise would be wasted. Using a Cascading & Repurposing business model, companies can differentiate into

different industries, creating also several collaborations with other actors in the marketplace as part of the value creation activities (Lüdeke-Freund et al., 2019).

Starbucks, the worldwide coffee company, has developed a complex business model through which cascading has key role in circularity implementation and cost savings. Indeed, the company transforms coffee grounds, used for coffee production, into feed for animals, used for milk production. In this way, Starbucks has converted natural output in input to sustain two different production processes, coffee, and milk, which are the base for its business, saving lots of money.

2.3.6 Organic Feedstock Business Model

Once all the feasible components are used in the Cascading & Repurposing process, the organic residual can be further elaborated through several techniques. Indeed, the biomass process transforms natural-based materials into biofuels; the composting process uses fungi and bacteria; the anaerobic digestion process produces biogas to create fertilizers.

This model's value proposition is the use of green and organic materials as an input to be transformed into a final good that closes the loop system (Lüdeke-Freund et al., 2019). Furthermore, in this business model, creating a network of service sharing and product exchange across different industries is crucial. Indeed, industrial symbiosis is the process through which waste from industry is transformed into feedstock for another industry (Bocken et al., 2016).

BlueFire Renewables is an American company that transforms green waste into biofuels. For instance, the company collects waste materials from urban garbage, wheat, rice and agricultural residues to convert them into ethanol and biofuels that have a low-emission impact on the environment. BlueFire Renewables is just one of the several companies worldwide that have created a transformation process to find green alternatives to petroleum and conventional high-pollution fuels.

2.3.7 Leasing Business Model

This business model is also denominated as “Access and Performance” model through which a company can lease the product or service for a given period of time (Bocken et al., 2016).

The value proposition is the delivery of a service to customers, rather than the product's ownership. Through this model, in fact, firm generates more revenues by lease the service,

rather than selling it with its ownership, because it is more convenient to retain a high durability product, which last many years and delivers high quality performances. In this case materials and components remain inside the closed loop, thus resources are used at the most efficient level, which is the main goal of circular business model (Adam et al., 2017).

Helbiz has launched a sustainable urban sharing mobility project by providing e-scooters, electric bikes, and electric moped in many important cities worldwide. Indeed, the company makes available to users an affordable vehicle-sharing service using a simple App. In this way, customers take advantage of convenient short-term service and positively impact the environment for the electric nature of vehicles.

2.4 Closed Loop Supply Chain

To complete the circular approach-based value creation process, focused on profit maximization and waste minimization, it is essential to analyze the entire firm's system. In particular, companies have to rethink their business model and supply chain, which represents the set of processes for producing and distributing products or services to the final consumer. Indeed, a sustainable or closed loop supply chain (CLSC) considers the final object of the firm's processes, which must be addressed toward minimizing environmental impacts and increasing social wellness. Furthermore, the CLSC management is focused on transforming operation, which, traditionally, leads to waste creation and resource depletion into sustainable activities closing the loop of resources. Several processes are used to implement such CLSC with the already described business models above. The Repair & Maintenance processes are used to extend product life through the participation of customers in the supply chain and supported activities of manufacturers and retailers. Moreover, Reuse & Redistribution processes are based on the usage of a product at its original scope with little change. Then, Refurbishment & Remanufacturing model is composed of activities aimed at fixing products by replacing broken components. Continuing, through Recycling processes, products components are separated and used in other production processes for new product generation. Additionally, Cascading & Repurposing activities aim at the exploitation of biological materials. Then, Organic Feedstock processes use natural-based materials to create chemical products or forms of energy (Lüdeke-Freund et al., 2019). Finally, through Leasing

activities, customers take part in the supply chain by using the product for a certain period, returning it inside the loop after use.

2.5 Product Design

Other than analyzing a sustainable supply chain in firms' systems, it is crucial to explore the importance of product design, or better, eco- and sustainable design to implement a circular economy.

Usually, once product characteristics are planned and created, it is impossible to change them in a more sustainable way. This is why designing a product prior to its production is crucial to implement closed-loop strategies. In particular, as already described above, there are specific business models in which product design is a prerequisite to implement them. For instance, the Repair & Maintenance Business Model necessitates assembly and dismantling products to apply a high-quality reparation. Almost all the business models discussed above that pursue to extend product life must be addressed through sustainable activities and eco-design of products.

Considering a design point of view, it is not easy to create a product configuration that must satisfy several needs and requirements of the different business models. Indeed, a product designer must consider a variety of issues such as material choices, disassembly, durability, simplification of product components (Hopkinson et al., 2018).

At this stage, it is essential to analyze the different kinds of product design that must be considered prior production process to understand better the difficulties faced by eco-designers.

The design for standardization and compatibility enables to use of parts or components of goods to create another product. For example, the design for disassembly and reassembly is important to easily separate product components used in other production processes. Furthermore, the design for reliability is essential to guarantee high-quality performances for a certain period without any failure. Then, the design for maintenance and repair helps to maintain products at higher condition, retaining their functional capabilities through restoring their initial conditions after damage. In this case, the possibility of upgrading a product is crucial to improve the quality of the product and its effectiveness of performances for a long-time lasting product. Other than the technical characteristics of product design that must be

achieved for the scope of circularity approach, there are other types of design-related more to the customer perspective toward the use of a product. The design for attachment and trust is essential to create a sense of trusted and loved product in the customer's mind. Also, the design for emotional durability ensures an empathic partnership between the user and the product, which is important to guarantee not only the physical durability of the product's feasible components but also the customer's willingness to retain such product from a long-term perspective (Bocken et al., 2016).

2.6 Implications

Once all the types of closed-loop business models are analyzed, it is easier to better define the general implication of a CEBM implementation.

From a resource management perspective, circular business models aim at slowing, closing, and narrowing the resource loop so that:

- 1.** The extension of life products can slow down dramatically the use of virgin resources.
- 2.** Recycling products, which otherwise would become waste, can close the loop between post usage and production.
- 3.** Constricting resources enable the use of fewer but exhausting materials per product.

As an alternative, from a value perspective, CEBM permits creating value for a company as an indicator of the economic value generated by a business model. Indeed, it is important to distinguish two different but crucial kinds of value. The value-added created by the company through the business model can be easier to define and measure using secondary raw materials in the production process. Instead, the value retained from already used products is not easy to evaluate in the current linear economic system (Lüdeke-Freund et al., 2019). This is why a serious change of the entire business ecosystem is crucial in the formulation of a new way of value creation that considers value creation and, mostly, value retained. To support the transition toward a circular economy is decisive for businesses to set up a clear circular model that provides the necessary sustainable strategic decisions from a long-term perspective. At the beginning of this process, managers must address all the initial tradeoffs as future opportunities; otherwise, it would be hard to start this process as a world economic change.

Furthermore, CEBM implementation has the strong potential to increase economic growth, market share, and overall profits. Notwithstanding, as already explained, implementing a circular economy stands on the responsibility of all individuals, companies, governments, and customers. The definition of “new” standards for the implementation of CEBM can represent a strong tool to overcome both the uncertainty about its application from the firms’ perspective and doubts about the quality and performance of reused products from customers’ perspectives.

2.7 Reasons of non-acceptance of CEBM

So far, this thesis has analyzed the governments' commitment to implement a greener economy through policies and economic incentives and the firm's corporate responsibility toward a positive impact on the environment. At this stage, it is also crucial to understand the obstacles faced to implementing CEBM for companies and the world economy in general and the power of customers in the transition toward sustainable development.

First, it is not easy to capture value through a closed loop approach in the current traditional economic system because implementing a circular economy requires different stakeholders to take part in this complex but extraordinary system. Furthermore, companies may be reluctant to change their entire ecosystem toward CEBM guided by a conflict of interest. This transition requires initial capital costs to change an existing product design or a business model from a sales-based to a usage-based business model. The origin of this issue can come from the lack of foresight of managers, which instead apply a short term oriented corporate management. Additionally, another reason which slows down the green transition is the misaligned profit-share along the supply chain. Indeed, firms must rethink their activities toward a reversed or closed-loop supply chain, which guarantees the reuse of products at their end life. This issue can be originated by an imperfect design of the traditional supply chain that does not focus on the importance of the post usage phase of products and their potential economic value. In this case, government intervention through legislation can represent a strong tool to encourage companies in the transition. Furthermore, there is also a geographic dispersion of implementation of a circular approach due to the lack of national and transnational cooperation across countries (Hopkinson et al., 2018).

Also, the consumer plays a crucial role in the transition toward the circular economy. Indeed, business model innovation is perceived as something "new" by both firms and customers. On the one hand, shift the attention from the generation to the recovery of waste is crucial. On the other hand, consumers have to change their behaviors in purchasing products and the acceptance of a circular approach economy. Why should consumers be concerned about the CEBM? As already explained, the consumer takes part in the business value creation through the reverse supply chain. Additionally, an innovative and sustainable business model aims at access rather than ownership of products and services to maximize product utilization and secondary resources efficient use (Planning, 2015).

From a customer perspective, the acceptance of a circular model is not straightforward due to the classical marketing influence toward a "new is best" mentality that has increased consumerism. Indeed, also marketing effort, through branding, represents a strong tool to overcome the common prejudice that reused product is necessarily perceived by customers as low quality and low-performance product (Hopkinson et al., 2018).

At this point, it is essential to investigate the reasons that conduct customers toward an adverse attitude against a closed-loop approach. The classic economy defines a consumer as "homo oeconomicus" guided by rationality in monetary decisions. For instance, by definition, a consumer should adopt certain purchasing behavior to reduce the overall lifetime costs or give back used goods in exchange for monetary incentives. Notwithstanding, this model of consumer does not reflect reality. Several subjective causes and beliefs generate a paradox by influencing consumer's behaviors, or better, his or her unconscious behaviors. Indeed, consumer's irrationality represents a strong obstacle for the circular economy implementation. A common case is the product price perception, which strongly influences consumers who prefer to buy a low price and low durability product against a higher price but longer life good. Why can certain unconscious forces influence at this point consumer's behavior? Generally, innovation requires a certain time to be accepted by individuals, even if it is really useful. The main reason is that consumers are creatures of habit, which hardly move away from their routine. Indeed, the constant use of a product over a long time increases the habit and consumer attachment toward that particular product. The humankind attitude toward the rejection of new habits and preserving routine generates passive resistance against innovation. One important instrument that can affect this trend is information regarding the innovation to open customer's minds toward a new habit. In fact, other than

spreading awareness on environmental issues and the economic benefit of the circular economy, education is a crucial long-term solution to change people's minds in favor of the green transition. But at this stage of human history, a radical and immediate change is essential due to the imminent scarcity of resources and current environmental problems. Hence, it is important to study the role of the unconscious and how to manipulate human irrationality in favor of sustainable behaviors.

The consumer is influenced by several forces that must be analyzed to understand better how to implement circular economy. For instance, non-functional motives have a crucial role in favor of innovations. In fact, entertainment can influence customers more than the utility function itself of the product. A clear example can be online shopping purchasing which transmits more emotions than the product itself to customers. Indeed, this enjoyment can transmit more the effect of the usefulness of innovation. On the contrary, if this usefulness does not transmit emotions and enjoyment to the customer, he or she will not be willing to buy such a product, even if useful, because of changing habits. For example, suppose a product is useful but time-consuming to learn at the beginning. In that case, it will generate negative emotions, such as annoyance, and the consumer will be more reluctant to change its routine toward this innovation.

Other forces that influence customers' behavior are subjective norms related to the perceived social pressure of a behavior performance. There exist two categories of subjective norms. The injunctive norms are the perceptions related to what should be done, while the descriptive norms are related to the performance of such behavior. Generally, an individual or an average customer decides to adopt or not a certain new habit based on the perceived number of people who have or have not already performed it. In particular, innovation is strongly influenced by those norms because only once it has a relevant impact on society can it be accepted by customers. Furthermore, it is important to distinguish visible innovations, which are easily perceived by market share, and nonvisible innovations, where the perception of the customer is hard to define. Usually, early adopters of innovations can influence others to follow their path. Subjective norms play a key role in shifting habits toward a circular economic approach, where a peer group of individuals imposes social pressure.

Finally, perceived moral norms can also influence an individual's behavior and represent a strong force for innovation acceptance. Perceived moral norms are detected as obligations to perform a certain behavior which can be right or wrong. Differently from laws and regulations,

those are based on the subjective impression of what is good to do or not. The main problem related to these social norms is that they are imposed slowly by society, and, at the same time, difficult to change from a short-term perspective. Indeed, it is crucial to influence moral norms to move the entire society toward the transition and innovation, encouraged by the cooperation of individuals, firms, and governments.

In conclusion, firms must design their innovative business model to optimize the value proposition considering both rational and irrational motives of the customer's behaviors (Planing, 2015).

3. BUSINESS MODEL FOR NGOS

In this chapter, this thesis will analyze the importance of a business model for an NGO, a non-governmental organization, that must be considered a nonprofit business, whose revenues are invested inside the organization to achieve mission-purpose goals. Indeed, it is crucial to develop a business model to understand better an organization, mostly a complex one as an NGO (Sanderse et al., 2020). Additionally, this thesis will investigate in-depth the building blocks that compose an NGO's Ecocanvas, based on the Osterwalder and Pigneur's BMC (Business Model Canvas) with a circular approach. This chapter is essential to construct a business model for 2hands Organization, a real non-for-profit environmental organization, which will be analyzed in the fourth chapter.

3.1 Reasons for implementing a not-for-profit BMC

According to the NGOs and Charitable Organizations Global Market Opportunities and Strategies Report (2020), the market for nonprofit organizations is expected to reach 3,25 trillion dollars by 2025. Such evaluation describes the importance of NGOs in the marketplace. Since the 1980s, the nonprofit sector has been subjected to considerable changes, forcing NGOs to change their attitude toward a more similar profit organization. Indeed, the external environment in the NGO sector has been transformed due to the increasing demand from donors, boosted by the growing awareness through digitalization and globalization. With such acceleration of NGOs' importance, the mission-based strategy turned out to be insufficient to self-sustain the organization's financial stability only with donations. Indeed, managing a nonprofit with a for-profit organization's mindset can have several positive effects (Sanderse et al., 2020). Unfortunately, there has been a widespread preconception that not-for-profit organizations are viewed more as mission-driven organizations rather than profit-oriented ones (Perić et al., 2020). Indeed, many operations conducted by NGOs are more "organization-centered" rather than customer-centered, mainly if they are considered marketing activities, fundamental to spread brand identity and increase fundraising. The main issue is the risk of misplacing idealism and mission goals, leading an NGO to lose its true nature.

Furthermore, due to such misconception, several volunteers act on a nonprofit mindset that does not permit them to focus on the profits generated to be invested in the NGO's mission-based activities. Even though the profit-oriented organization's business model, focused on

the shareholders' value maximization, can be considered the opposite of a nonprofit's one, this is not the case. Indeed, evidence demonstrates that NGOs have much in common with profit organizations more than everyone could think. Nowadays, not-for-profit organizations are moving from a long-term and traditional mission-oriented perspective toward a short-term goal-oriented one, focusing on profit generation through competition and marketing activities. Furthermore, the fathers of the BMC, Osterwalder & Pigneur (2010), stated that it is crucial for an organization that creates and delivers value to survive in the marketplace through revenue generation, covering its expenses, regardless of the nature of profit or nonprofit organization.

Furthermore, it could be an optimal strategy for NGOs to structure a BMC to share, communicate, analyze, manage, fundraise, coordinate internal and external activities (Sanderse, 2014). Indeed, organizations in the nonprofit sector can use the business model to guide better the NGO toward its mission through a more transparent analysis of the environment and strategies creation.

It is possible to develop an optimal NGOs' BMC considering a "social business model", a middle way between a profit and a nonprofit organization. Indeed, this peculiar business model must generate profits, not just for the organization itself but also with a strong social focus.

Furthermore, NGOs business models are not, so profit maximization centered but more impact-oriented. Through its activities, it delivers social or environmental benefits by creating a huge network of partners. The measurement of the success of an NGO's business model stands on its impact on society, so it is crucial to clearly identify the social mission in the NGO's business model (Sanderse, 2014). The concept of impact is essential for NGOs referring to the contribution towards the mission achievement in favor of social and environmental benefits. It is essential to underline the general difficulty of entrepreneurial orientation that stands in the nonprofit sector. Indeed, there are many tradeoff situations in which nonprofits must face several factors. Internal factors are more related to cost and risk management, while external factors are related to governmental regulation and competition (Perić et al., 2020). Furthermore, as a profit organization, also an NGO must consider the changing environment in which it lives, requiring constant monitoring. Hence, a business model can help foresee changes, but mostly to understand how to act in a changing environment (Sanderse et al., 2020). Other than such tradeoffs, a nonprofit entrepreneur must not ignore the social purpose of the organization's activities, which creates a complex situation to manage. It is important

to split the vision into both mission-centric and financial ones in order to generate enough profit to be invested in the organization's activities for mission purposes. The complexity of a nonprofit system represents why it is crucial to adopt a business model. Furthermore, to avoid losing the nonprofit mission, a business model can help underline the differences between profit and nonprofit characteristics. Lastly, it is crucial to develop strategies to fundraise enough revenues to be invested in the organization's system. (Sanderse et al., 2020).

Before starting to analyze the creation of a business model for a not-for-profit organization, it is important to define the real meaning of an NGO. According to the UN's Department of Public Information (DPI) (2010), an NGO is a "not-for-profit, voluntary citizen's group, which is organized on a local, national or international level to address issues in support of the public good". An NGO has several characteristics essential to be defined to understand the complexity of its system better. Indeed, an NGO's activities must be guided by a mission for social or other purposes, which gives the rationale of the organization's membership. All its members are motivated to act to the purpose of the goals. Furthermore, the organization acts separated from the governmental power and all activities must be addressed to avoid profit-making. In this way, money is considered an input to be invested in its activities, and it is not viewed as an output. Furthermore, the mainstream flow generation comes from donations or grants from third parties (Sanderse, 2014).

Osterwalder and Pigneur, in their *Business Model Generation* (2010), developed different variations of business models depending on the nature of the organization. There are two main variations at the general level of a beyond-profit organization, which have a mission-centric perspective. The first alteration regards the "Triple Bottom Line" business model used for social and environmental cause businesses. In contrast, the second variation regards the "Third-Party Funded" business model composed of charities and philanthropy-focused organizations (Osterwalder et al., 2010). This thesis will focus the analysis on Osterwalder and Pigneur's Triple-Bottom Line Business Model, considering all activities supporting circular economy implementation.

3.2 Building Blocks of nonprofit Business Model Canvas (BMC)

In this section, this thesis will analyze the construction of a business model canvas for nonprofit organization, underlining the main differences with a profit organization. In

particular twelve building blocks will be examined to understand how an organization's system works. Let us analyze in-depth each building block developed from the Osterwalder and Pigneur's theory of Triple-Bottom Line business model (2010), with three additional building blocks aimed at the implementation of the circular economy.

1. Customer Segments

According to the traditional for-profit BMC, the customer segment is composed of different groups of people or organizations which the business must reach and serve, in other words, it is comprised of the target market.

For an NGO, the customer segment can be divided into two categories, the recipient and the donor. The former is composed of the beneficiaries, as the set of people that receive the mission-based service from the nonprofit organization, think of UNICEF that provides services to help children all over the world. The latter, is composed of the donors, or stakeholders, as the secondary NGO's clients, that sustain the nonprofit through funding, in exchange of performance of the organization's mission (Osterwalder et al., 2010).

According to Osterwalder and Pigneur, the main problem of this building block is the risk to misalign the value-creation incentives, confusing the main customer with the donor, while the recipients, which receive the main purpose of the organization, are neglected, due to the fact that is better to give importance to who is giving you money. To avoid this unfortunate situation, the organization must address different approaches toward each category of customer segments (Sanderse, 2014). Indeed, an NGO can create a value proposition framework for both, the recipients or end-users, and the donors, or stakeholders (Sanderse et al., 2020).

2. Value Proposition

In this building block, the value proposition is considered the heart of the organization, as "the bundle of products and services that create value for a specific customer segment" (Osterwalder et al., 2010). Usually, nonprofit organization do not register commercial activities by selling a product and most services are really specific and short-term based. For instance, several nonprofit organizations can organize education programs, workshops, and projects (Perić et al., 2020). Furthermore, it is essential to incorporate the business' mission in the value proposition, in order to better deliver value to customers. There is no doubt that

the mission for a not-for-profit organization represents the key for its success. Indeed, the nonprofit mission is the key driver for all the supporters and volunteers, which with their own strengths, sustain the organization's mission.

In the case of a NGO, it is essential to split the value proposition for each customer segment, due to their different characteristics and purposes. Indeed, usually a donor sustains financially the organization for a specific purpose, rather than the entire mission per se. For instance, when a nonprofit has to raise funds, it is more convenient to launch a fundraising for a specific goal, rather than a general one to sustain the entire organization's mission. The main reason stands in the fact that people are more willing to donate their money in specific activities on a short-term perspective. Indeed, the set of products and services that are realized through the collection of donors' funds is denominated as program activities (Sanderse et al., 2020). On the other hand, a recipient has a different value proposition from a donor, based on the service that s/he receives from the NGO.

Furthermore, NGO's brand plays a key role in allocating value proposition because it can create emotional attachment to the organization. Not only volunteers and internal actors can feel more connected to the NGO, but also external potential supporters can be boosted to sustain the organization, believing in the delivery of its mission for a specific purpose (Sanderse, 2014). Indeed, for a nonprofit organization the brand represents a strong tool for public recognition, enabling it to gain access to several fundraisings.

3. Channels

The channel building block represents a customer touch point through which an organization communicates with and reaches its segments to deliver the value proposition (Osterwalder et al., 2010). For an NGO, channels are crucial to deliver a product or a service through different ways, via partner organizations or via local authorities and governments. Hence, a nonprofit organization that aims at interfacing with its customer segments or partners can use channels as a way to communicate, distribute and sell its product or service (Sanderse et al., 2020). There are two different types of channels; the direct one, managed by the organization itself, and the indirect one, composed of partners' contribution. As will be explained below in the Key Partnerships building block, an NGO must establish a strong network of partners in order to deliver its value proposition. Indeed, a nonprofit reaches customer segments through several channels, also created by partners, in order to increase brand awareness, deliver value

proposition and increase the network of players that contribute to the NGO's mission realization.

4. Customer Relationship

A business must establish a specific type of relationship based on a particular customer segment (Osterwalder et al., 2010). There are several kinds of relationships that can be created to connect the company to customers, from personal assistance, based on human interaction, to an automated service.

A nonprofit organization must establish strong and long-term relationship with each customer segments, the donors and the recipients, in order to achieve its mission (Sanderse, 2014). To create a respectful relationship with a donor, which provides financial incentives to reach the organization's goals, an NGO must establish a personal assistance with each donor. Indeed, the nonprofit must update its donors constantly in order to give them evidence of the use of their money for mission-based activities. Thanks to this strictly personal relationship, the donor will attach more emotionally to the organization, knowing that his/her money are used for a social purpose, encouraging them to continue donating and supporting the organization. Furthermore, thanks to this emotional attachment, it is possible to create a community of people interested in the organization where everyone can share experiences, knowledge, information, suggestions. Indeed, communities are crucial for an organization to get more involved customers in the business dynamics (Osterwalder et al., 2010). On the other hand, the organization must establish with recipients a dedicated personal assistance, given that they receive the scope-centered service. In fact, it is essential to deliver the mission-based service at the best way to all beneficiaries. Let us think of children who receive service from UNICEF. They must receive a dedicated personal assistance in order to fully enjoy the organization's service.

5. Key Resources

This building block represents the most significant component of a business model, due to the importance of resources used to create and offer value proposition, maintain relationship with customers and generate revenues (Osterwalder et al., 2010). There are mainly four kinds of key resources: physical, intellectual, human, and financial.

An NGO, as a profit business, must concentrate all of its effort to have sufficient resources to achieve its mission. In particular, human, financial and intellectual resources play a key role in the implementation of mission-purpose activities. Indeed, those program activities are usually executed by volunteers and financially commissioned by donors, both encouraged by the organization's mission. Furthermore, co-creation is essential to retain a long-term and attached relationship with volunteers, which represent the NGO's human resource. The majority of nonprofit have a team composed of volunteers, that make available their time and expertise for free to achieve organization's goals. Indeed, volunteers, take part of the organization's system creating more value through co-creating. Additionally, intellectual resources can include several nonphysical components such as copyright, patents, and mostly brands. As mentioned in the value proposition, a nonprofit brand is crucial to create an emotional attachment to the organization for all stakeholders and recipients. On a general level of analysis, every not-for-profit organization, no matter the size and type, without these three key resources, just mentioned above, will not be able to achieve its mission (Sanderse, 2014).

Furthermore, physical resources must be examined only considering important NGOs, such as Save The Children, that have the financial availability to afford such costs.

6. Key Activities

Key Activities represents the set of the most important actions required for a company to operate successfully (Osterwalder et al., 2010). According to the general for-profit-organization BMC, key activities are categorized in the production (for manufacturing business), problem solving (for service business) and platform/network (for online commerce business). Through this building block, an organization can transform input to reach its mission by executing value-creating activities service.

In the case of an NGO, key activities can be compared to program activities, which are financially promoted by donors and executed by volunteers, which must reflect its core mission (Sanderse et al., 2020). Indeed, it is not easy to generalize key activities for a nonprofit organization, because it depends on the nature of the organization. The most important feature of key activities is that they must be executed in order to create and deliver the organization's value proposition.

7. Key Partnerships

This building block describes the network of suppliers and partners that make the business model work (Osterwalder et al., 2010). Among these partnerships, a network of agreements with other organizations (other businesses, stakeholders, competitors, governments) is essential to create and distribute value proposition.

An NGO must take severely into account this building block in order to create a strong and long-term relationship with different stakeholder in order to achieve its mission (Sanderse, 2014). While, a for-profit business model tends to concentrate in the creation of a relationship mainly with suppliers, as partners of the company, which take part of the company's value network. On the contrary, an NGO must establish a strong network of relationships with different kind of actors due to the scarcity of financial availability, necessary to survive. Indeed, the motivation for creating partnerships for a nonprofit organization, is the acquisition of resources and activities. As already mentioned, establishing a strong relationship with stakeholders enable an NGO to receive necessary funds to finance their core activities. Other than donors, a nonprofit organization can cooperate with several commercial activities by acquiring physical resources for free, or as a donation, or at a discount, due to its mission purpose activities. Furthermore, governments play a key role for certain activities' implementation. Indeed, the majority of an NGO's program activities require special permissions by the government due to their purpose which is usually focus on the benefit of the local communities or the environment. Lastly, in order to retain successful long-term relationship with partners, it is crucial for an NGO to have a positive reputation and implement its activities with full transparency, avoiding any kind of misleading approaches (Perić et al., 2020).

8 – 9. Revenue Streams/Cost Structure

As already mentioned above, an NGO business model must be constructed on the basis of a for-profit system, taking into account also revenue streams and cost structure. This building block represents an important part of the BMC, highlighting the importance of money management also for nonprofit organizations, as the only way to survive in the marketplace. According to Osterwalder and Pigneur, revenue streams represent the cash generated from each customer segments, while the cost structure describes the costs incurred to operate the business model.

An NGO, as any kind of business, must sustain its activities and operations through financial resources. Several scholars have suggested that revenue can be measured not only through money generation, but also through the impact or mission achievement of not-for-profit's activities (Sanderse, 2014). For instance, UNICEF's revenue streams are measured with the number of children supported by its services. But more generally, revenues streams for an NGO are composed of income flow coming from donations, sales of merchandise and other form of income streams. Indeed, most of the nonprofit count solely on donations, but others generate profit also from commercial activities, depending on the nature of the organization (Perić et al., 2020). On the contrary, total costs are related to the cost of the organization's core activities implementation (Sanderse et al., 2020).

3.3 The Ecocanvas

Through a holistic approach, it is possible to mix the circularity approach and the theory developed by Osterwalder and Pigneur to create an eco-business model canvas, also denominated as Ecocanvas (Daou et al., 2020). Such sustainable business model is conceived to create value for shareholders, adding three new building blocks related to environmental and social issues, which are usually omitted in the traditional BMC.

First, economic and legal factors must consider current and future government's regulation and policies regarding environmental issues. Indeed, the Ecocanvas enables businesses to decrease environmental footprint, maximize the usage of resources and have a positive impact. For instance, as already explained in the first chapter, the European Community has implemented several regulations in order to reduce emissions to zero by the 2050.

Additionally, other factors to be considered in the creation of Ecocanvas are the environmental challenges that influence an organization's business strategy. Climate change, pollution, water scarcity and other current and future changes will bring companies to face several challenging decisions regarding the availability of resources.

Furthermore, also societal and technological changes must be analyzed in order to construct a successful Ecocanvas. Indeed, digitalization can shape society's culture leading to crucial changes in a company's channels, key relationships, and revenue streams. For instance, the current "green" generation has influenced a lot of companies' strategies toward a more environmentally-friendly decisions.

Generally, the Ecocanvas helps to highlight both weaknesses and strengths of a company toward the green transition, which can result time consuming for businesses. Indeed, it is important to start since the beginning of life of an organization this circularity approach. At this stage, it is convenient for the scope of this thesis to analyze in-depth the additional three building blocks that compose the Ecocanvas, which will be used to construct 2hands Organization's business model in the fourth chapter.

10. Ecocanvas: Environmental Foresight

In this building block, the organization must identify the current and future environmental changes which can affect company's decision. First of all, resource scarcity represents a dangerous issue for businesses due to their dependence from high polluted and scarce availability physical resources. Indeed, climate change and global warming can jeopardize business' strategies due to the unforeseen events caused by natural disaster, such as drought, flood, tornado, etc. Furthermore, in the first chapter it was presented the current world economic movement toward a more sustainable economy through enactment of environmental regulations that can compromise a company's strategies and incur in several costs. Think of factory's conversion toward more sustainable production facilities that is high costly for a company.

From an NGO's perspective, regardless the nature of its mission, the organization must consider environmental issues when implementing its program activities. First of all, it is essential to create a complete positive profile of the organization at a general level to enable donors embracing a positive reputation and sustaining more its activities. Furthermore, for international NGOs that act as a for-profit business, mainly for the availability of physical resources, it is essential to act in a proper way toward the environmental benefit, also becoming a role model in the marketplace for other businesses.

11. Ecocanvas: Social Foresight

According to Daou's research, it is necessary to analyze from a holistic approach business models integrating also social changes that can affect company's decisions. Indeed, a business must detect and predict current and future social trends regarding several issues but mostly environmental awareness. Those trends can also shift consumer's purchasing decision in favor of more sustainable products, influencing and affecting companies' decisions.

Also for an NGO, it is important to adapt to social trends, regardless the non-profit characteristics. Indeed, an attention toward environmental awareness can attract more volunteers entering in the organization, which are an important resource, spreading a positive reputation and inducing benefactors to donate. Think of eco-friendly gadget against traditional polluters ones to sell or donate to volunteers and supporters. Furthermore, an NGO can “teach” people to respect the planet given its non-profit nature and its reputation. Indeed, people are more willing to be influenced by a social purpose-focused organization, rather than a profit-centered one.

12. Ecocanvas: Circular Business Model & Innovation

In this building block are combined all the circular-approach strategies, as set of actions aimed at the value creation, implementing circularity in the organization’s system. A company can implement one or more of the seven sustainable business models, analyzed in the second chapter, depending on the nature of the value proposition. For instance, a company that produces metals must develop recycle methods when analyzing this building block.

An NGO must implement circularity in its strategies in order to avoid waste of resources and boost a more sustainable way to achieve its mission. Indeed, due to the lack of resources, mainly financial ones, this aspect of the Ecocanvas is crucial for a non-profit organization to reuse at the maximum level its resources. In particular, it is difficult to generalize this building block due to the different nature of NGOs, but it is important that they are conscious of creating a green Value Proposition through circular management (Daou et al., 2020).

3.4 Challenging Issues for an NGO

Once analyzed all the components of a business model to be developed for an NGO, it is clearer how many difficulties and tradeoffs a nonprofit must face during its lifetime. Indeed, an NGO is a more complex system compared to a for-profit organization, due to the scarcity of resources availability, mainly financial ones. At this point of the analysis, it is essential to enumerate all the issues that an NGO can face in the construction of a business model, considering the changing environment of the voluntary sector (Perić et al., 2020).

First of all, leadership is essential to inspire and create passion among the network of people that undertake to achieve the nonprofit mission for a social or environmental purpose. The

main inspirers must be the leader and the board members of the organization, which are committed to manage all the activities within and out of the system. Furthermore, spreading passion, related to the NGO's cause, is essential to inspire others in entering inside the organization and providing support to accomplish the purpose. In fact, due to the misleading perception that nonprofit organization should not generate cashflow endangering their mission, it is crucial to have a strong and inspiring board members so that everyone can trust the organization's activities. It is essential to team up with the network of people that want to take part of the change, other than volunteers, donors and corporations, also governments and academic supporters.

Secondly, as already explained, the biggest challenge faced by most of NGOs is the lack of resources, mainly financial ones, and the impossibility to self-sustain, as a profit-organization. Indeed, the majority of nonprofit think that the only financial support is composed of private or public donations, which are unstable and risky. On the contrary, nowadays, the tertiary sector environment has faced several changes, that allow an organization to implement more efficient strategies, that are affordable easily. New technology represents a strong tool to bring several opportunities for NGOs, creating an easier and inexpensive access towards stakeholders. Indeed, social media represent new means of connection worldwide, mostly among new generations. The role of social media manager is essential for a nonprofit to have a successful communication with followers, as people interested in the organization, retaining new volunteers, and collecting more donations. Through crowdfunding, an NGO can engage philanthropists who believe in the cause and support initiatives financially. In fact, nonprofits can raise money through physical or virtual fundraising campaigns to be used in the organization's activities in order to achieve its mission. Especially virtual initiatives are essential to gain trust and spread awareness among the youth, which represents the most important target market to take into consideration. The majority of nonprofit has a long-term vision, which needs several times to be accomplished. This is the reason why it is important to include new generations in the organization's activities, which will represent the next future. It is clear that the best approach is to invest in digital marketing, that through several platforms (Instagram, TikTok, Facebook, YouTube) can reach young people to take part of volunteering initiatives.

Furthermore, an NGO must put its effort to receive the support of corporate donors, which constitute a strong financial aid to sustain the organization's mission. In fact, nowadays,

companies, especially big international corporations, invest lots of money in nonprofit organization, showing their philanthropist character, mainly to gain a positive reputation from their customers. For this reason, an NGO must manage efficiently its economic sector through transparency of accountability and demonstration of a concrete evidence of the positive impact of its activities. Unfortunately, this task can represent an issue due to the lack of skilled personnel, which provide service for a fee (think of a professional accountant) and lack of negotiation skills, that are important to establish professional relationships with partners. Finally, another issue to analyze is the current way of living and working which does not allow volunteers to dedicate enough time to be spent in the organization's activities. In the last decades especially, pace of life has increased so much that NGO's human resource, the most important part for a nonprofit, are scarce. Indeed, many volunteers, especially those that take part of the members board, have to tradeoff between their job and private life and the nonprofit's effort (Perić et al., 2020).

4. CONSTRUCTING AN ECOCANVAS FOR AN NGO: 2HANDS ORGANIZATION

This final chapter regards constructing an Ecocanvas business model for 2hands Organization, an environmental not-for-profit organization. After considering all the topics covered in other chapters, this thesis will focus on the nonprofit's analysis and the creation of an efficient business model to be implemented in the real world.

4.1 2hands Organization

It is essential to analyze the 2hands Organization's story from birth until its current situation to construct a business model using a holistic approach and suggest sustainable strategies to achieve future goals better.

2hands Organization is an Italian environmental not-for-profit organization that counts more than 1000 volunteers spread all over the country. The organization ranks fourth in the Italian environmental nonprofit organizations list for the number of volunteers, cities involved and its positive impact on local communities. The nonprofit's vision is to create a network of people involved in environmental protection through an unconventional volunteering approach. Indeed, given the organization members' youth, 2hands aims to become a reference point for all the young people who want to participate in environmental change through practical actions to fight pollution such as innovative green projects, awareness campaigns, and entertaining clean-ups.

Let us define 2hands' birth, underlining the main concepts that have become the entire organization's foundations. 2hands Organization was born in Molfetta, a town in the South of Italy, in 2018 from a group of young people aged between 18 and 21, guided by its founder and creator, Riccardo Maria Mancini. At the beginning of its life, 2hands counted only 20 volunteers involved in clean-ups, intended as events open to the entire citizenry, where people equipped with gloves, clamp waste collectors, and garbage bags removed several kilos of garbage from the environment. Unfortunately, the organization faced initial not-easy difficulties due to the lack of financial resources and inexperience of team members, who still continued their activities inside the local territory for the following two years.

In 2020, while the entire world was facing the dilemma of the Covid pandemic, 2hands Organization started its exponential growth founding new headquarters in Giovinazzo and Ancona, increasing its popularity all over Italy. Notwithstanding COVID-19, team members

took advantage of the pandemic by recruiting all people interested in the project from all over Italy through social media. Thanks to its digital approach, several young volunteers have decided to protect the environment under the name of 2hands. At this stage, the organization has understood its real potential to become a great network of people involved in environmental protection. Indeed, the decision to divide the organization into subgroups of operative cities that execute activities for their own local communities and environment was crucial to permit its growth. In fact, in 2021 the organization has founded a total of nine headquarters cities spread across the Italian country (Bari, Molfetta, Giovinazzo, Bitonto, Matera, Altamura, Gravina in Puglia, Ancona and Macerata). Each 2hands city has its own personality that reflects the customs and tradition of local communities to fit the city's needs and wants better, that change among different geographical areas. Indeed, even if the final service provided by 2hands is the same among the nine cities, the way of doing program activities change from city to city. Such a way of involving cities and people characterizes the peculiar 2hands' feature. It is not a case that the brand's logo is represented with several and multicolor intertwined lines (*See Figure 5*), which reflect the heterogeneous 2hands' community, that, notwithstanding its differences, is united to achieve the same objective: the environmental change.

2hands has reached impressive goals in few months. It has collected more than 27 tons of garbage from the environment through its nine cities headquarters' clean-up activities. Several green projects were developed and launched among 2hands cities to develop an open-source network, named 2hands *NODE*, where everyone can contribute to projects by sharing their knowledge. Thanks to innumerable people who have taken part in the organization, 2hands has created a strong network through which it is possible to share information and recruit new members interested in managing activities.

It is essential to underline the importance of green and sustainable projects developed by 2hands' members among the several activities. In order to create an attachment to the brand, each project contains a particular feature in the name. Indeed, let us analyze those innovative and eco-friendly projects, which are still in the design stage.

2map is a constantly updated and interactive map that reports the most polluted areas of the local territory. Indeed, a 2hands city can develop this map through warnings coming from the contribution of volunteers and citizens. In the map, several areas are reported in different colors, based on the condition of the environmental degradation. The innovation in

the *2map* creation stands in GIS technology, which enables to precisely report the most polluted areas. The success is given by uploading attached photos for each report, representing the local area's transformation from an initial state of decay to a cleaned up one, after the intervention of 2hands volunteers. (See Web Reference, *2map Project*).

2drink project aims at fighting single-use disposable materials. In particular, through this project, the organization will produce sustainable water bottles, which will replace plastic bottles. Each bottle contains a QR code that virtually shows drinking fountains, enhancing their importance in local territories.

Finally, *2breathe* is an interesting and original project focused on creating a forest in the city center. Through this project, 2hands aims to create a green area that contributes positively to improve the air quality of cities and citizens' emotions. Indeed, it could be possible to create a playground for children and construct sensorial areas for people with disabilities.

These represent just a few of the innovative and eco-friendly projects that distinguish 2hands from other nonprofit organizations. Besides projects, the clean-up activities have much success in recruiting volunteers and team members for each city. Furthermore, thanks to its digital approach and young target market, 2hands finds its success on social media platforms, mainly Instagram, Tiktok, Facebook and Youtube. In this way, 2hands launches several awareness campaigns on environmental issues through social media to gain the attention of young people. The goal of awareness campaigns stands in the information regards national and international news on natural disasters caused by climate change, governmental policies in favor of ecological transitions and information regard 2hands' positive impact on the environment and local communities.

2hands Organization has just launched its first 2021 action campaign, *Adriatic Heroes*, to impact the Adriatic Sea positively. Through more than 70 clean-ups intervention, 2hands volunteers will remove more than 20,000 kilos of garbage from the sea and beaches through traditional land intervention and sea-based ones with ships, sups, surfboards and sub-skilled people. The choice is given by the presence of many 2hands cities on the Adriatic side, representing an essential mission for the organization. *Adriatic Heroes* is just the beginning of several action campaigns aimed at having a positive impact on local communities and the environment.

To conclude, 2hands Organization is a multi-faced innovative environmental organization gaining importance at the national level. The reason for its success stands in the team board

dedication and volunteers' contribution, composed of really focused young people who believe in the mission and foresee the potential of the nonprofit. Those initiatives represent an important source for the nonprofit that must invest in such original projects, spreading its name to other cities in Italy and, in future, also abroad.

4.2 2hands Organization Ecocanvas construction

Once it has become clearer the profile and story of 2hands Organization, it is possible to construct an efficient Ecocanvas business model focused on the needs of the NGO and the circularity approach implementation. Let us analyze each of the twelve Ecocanvas' blocks in-depth, based on the analysis conducted in the second and third chapters (*See Figure 6*).

1. Customer segment

2hands Organization's customer segments are composed of two groups the donors, which financially sustain the organization's activities, and the recipients, made of those who receive the mission-based service.

The first customer segment is composed of those who believe in 2hands' mission to fight environmental pollution and sustain its program activities through monetary donations. Due to the importance of financial resources to fund projects, 2hands must take severely into consideration a way to attract customers who usually have an average age higher than its volunteers, mainly young people between 15 and 30. It is not sufficient to depend on the financial sustain of volunteers' families and friends if the organization aims at increasing its importance at the national level. Indeed, it is essential to create a communication strategy that fits mainly Boomers, who have the financial resources to donate and sustain the organization. Moreover, the donors' group can concern private and commercial beneficiaries, which can donate money or physical resources to support the cause. For instance, several 2hands cities receive donations from citizens and commercial activities such as restaurants, bars, shops. Such contributions also boost collaborations creation with different actors aimed at sustaining the organization from a long-term perspective. In particular, this topic will be better analyzed in the key partnerships building block.

Furthermore, the other customer segment is represented by the recipient as a group of people who receive the organization's service. Of course, the main actor who benefits from 2hands'

activities is the environment, due to the nature of activities and the organization's mission. Nevertheless, the subsequent recipients are local communities where 2hands cities implement their activities.

The set of recipients is composed of different subgroups of 2hands citizens. Due to the variety of projects aimed at helping the local environment and communities, several people receive the service. For instance, the *2breathe* project characterized by the creation of an urban forest can represent a place for people with disabilities where they can pass their free time in nature, escaping from the grey and polluted city air. Furthermore, the organization aims to spread environmental awareness in schools, where children represent the future generation. In conclusion, the set of recipients can spread among several actors based on the nature of the projects.

2. Value Proposition

This building block is the most important one due to the nature of the nonprofit organization. Indeed, it is crucial to consider not only products that can be sold to fund financial resources but mostly the organization's mission.

2hands Organization's general value proposition is composed of its mission to become a reference point for anyone who wants to contribute to the scope, creating a network of young people who share their knowledge to positively impact the environment using an innovative approach. The organization should better spread this mission statement in order to distinguish itself from competitors, mainly the other Italian environmental nonprofit organizations. For example, many people continue to compare 2hands Organization to PlasticFree, another nonprofit organization that acts through clean-up activities with greater average age volunteers. In this particular case, the main differences are that 2hands provides more services than PlasticFree, such as innovative green projects, and considers Generation Z and Y as the majority of volunteers, rather than Boomers.

Furthermore, an optimal starting point can be the division of value proposition based on the customer segment.

From the donor's perspective, the value proposition is the set of 2hands' initiatives that aim at having a positive impact on local communities and the environment. Indeed, a donor is more willing to donate money for a specific project to monitor how their money is used for practical action. A practical example can be the *Adriatic Heroes* action campaign, whose goal

is to remove 20 tons of garbage from the Adriatic Sea by 2021. Indeed, 2hands has to fundraise a campaign to collect enough money to achieve this important goal. Donors may be more incentivized to donate for such an ambitious goal rather than donate for a general fundraising campaign to sustain the organization as a whole.

Instead, from the recipient's perspective, the value proposition is represented by the program activities to benefit the local environment and communities. It may seem similar to the donor's value proposition. Instead, the recipient's value proposition is more emotional and mission-attached because recipients are represented most of all citizens who live in a 2hands city and feel the need to fight local pollution.

Moreover, it is essential to develop a more researched brand logo, which can be an optimal instrument to spread the organization's mission and enable a more direct recognition of the organization. In this way, the target market, mainly composed of young generations, can feel more attached to the organization, contributing to the achievement of 2hands' mission.

3. Channels

This building block considers the touchpoints of the organization between the nonprofit and customer segments. Due to the early life stage of 2hands Organization, it is crucial to establish a stable indirect channel to deliver the value proposition to donors and recipients. Indeed, partners play an important role in this building block. Local authorities and governments must cooperate with 2hands in achieving its mission. Due to the nature of its program activities, several are the situations in which volunteering is not sufficient to complete operations. For instance, *2map* requires the contribution of both 2hands volunteers and the local waste disposal company, commissioned by the local authorities, due to high volume and high quantity of wastage, which volunteers cannot easily collect.

Furthermore, commercial activities can spread awareness about the nonprofit existence among local citizens by creating collaborations. For instance, it is possible to highlight local shops and bars that sell sustainable and vegan products, which increase awareness of environmental issues and promote a sustainable lifestyle.

4. Customer Relationship

In this building block, all the specific types of relationships with customers are established to enable 2hands Organization in defining the best strategies to connect with them. In the

relationships with donors and recipients, transparency of the organization's activities represents the key element.

Let us start analyzing the relationship that must be established between 2hands Organization and the donor's customer segment. It is necessary for 2hands to retain a strong and long-term relationship with benefactors who contribute to the environmental cause by donating money through a personal assistance relationship. Indeed, at this early stage of life, 2hands needs to collect funds that finance several activities to achieve its mission. First, it must consider launching crowdfunding campaigns for specific projects or workshops to attract donors better. Then, it is helpful to establish a strong connection between the donor and the organization through a newsletter that can constantly update the donors regarding 2hands' activities and how their money is used for the scope. Furthermore, private philanthropists who contribute financially to a particular project can receive merchandise depending on the donation.

On the other hand, the recipients, mainly represented by local communities, can be emotionally attached to 2hands through a fair and transparent implementation of activities to contribute positively to the local environment by fighting pollution. For instance, it is essential to disclose all relevant information about the organization, such as activities, impact on the environment and communities, future goals, and objectives. All 2hands cities communicate to the citizenry through official press releases with local and regional newspapers, tv, and general telecommunication. Furthermore, social platforms are crucial to spread awareness about the organization's mission and activities among the youth, who might be attracted to take part in the 2hands community. In this case, dedicated personal assistance is an important relationship to be established with recipients. For example, school workshops require a specific set of actions aimed at educating children toward more sustainable habits. Generally, depending on the nature of the project or workshop, 2hands volunteers have to act properly depending on the specific recipient that will receive the mission-based service.

5. Key Resources

2hands Organization must avoid waste and maximize usage of materials mainly due to its mission focused on environmental protection and the lack of financial availability to afford many resources. Indeed, it is essential to analyze each of the most important key resources for 2hands Organization.

Human resources play a crucial role in managing and sustaining the organization. 2hands' team boards and volunteers represent the most important part of the organization. On the one hand, each 2hands city is composed of two team boards, a managerial and an executive one, composed of young volunteers who make available their energy for free to achieve 2hands' mission. Both teams cooperate to manage the organization and implement the best program activities. Furthermore, it could not be possible to accomplish the organization's goals without the contribution of volunteers. At the national level, 2hands volunteers are estimated around a 1000 people involved in activities in favor of environmental protection. The national team board has stressed the creation of 2hands *NODE*, a favorable network among 2hands cities and external actors where everyone can contribute by sharing their experience and knowledge. Through co-creation it is possible to grow the importance of 2hands at national level by multiple actors' brainstorming, creating original green projects, increasing the organization's brand awareness through words-of-mouths and recruiting skilled people who want to contribute to the cause.

Additionally, financial resources are crucial to sustain activities and survive. Indeed, 2hands must establish efficient crowdfunding campaigns for each project, that attract more emotionally donors. Furthermore, monetary resources come from private or public donations, where citizens and commercial activities contribute, but also 2hands cities government can donate in favor of the organization's positive impact on the local environment and community. Nevertheless, given the fact that donations flows are uncertain, it is important to construct also strategical projects planning that raises enough funds to be invested in the internal organization. Indeed, in the latest building block, circular approach projects will be presented to reuse resources to collect money, always achieving an environmental and social purpose.

6. Key Activities

In this building block, the set of activities aimed at reaching the organization's mission are presented. In the case of 2hands Organization, key activities are related to program activities to deliver the value proposition to customer segments: clean-ups, awareness campaigns and green projects.

Clean-ups are the most significant events that recruit most volunteers and positively impact the environment. For instance, 2hands Molfetta has collected more than 10 tons of garbage

from the local environment since 2018, spreading a strong message to the community, which can hardly remain indifferent in front of such an amount of waste.

The action campaigns are focused on a call-to-action of everyone who wants to contribute to a short-term mission. For instance, *Adriatic Heroes* represents the first 2hands' action campaign that aims at removing 20 tons of garbage from the Adriatic Sea. The organization should develop more than one action program simultaneously considering the needs of different city headquarters. Hence, 2hands should construct another action campaign also designed for cities that lack the presence of the sea. For instance, a campaign called *Land Savivors* can be launched to remove more than 30 tons of garbage from the countryside, which are more subject to human barbarism.

Awareness campaigns are focused on the spread of information about environmental issues to everyone. The aim is to educate mostly young people, which represent the next generation, to create a more sustainable future.

Green projects are the most peculiar feature of 2hands Organization. As already explained in the organization's profile, 2hands projects are constantly updated and subjected to improvements from the *NODE*. In this open-source network, all 2hands cities and external actors can share their ideas to create sustainable projects to benefit communities and the environment. Such eco-friendly green projects aim to positively impact the local environment through technology, representing a wave of innovation in the environmental protection field. Additionally, another exciting aspect of 2hands' activities is the reevaluation of 2hands cities' beauty. Indeed, the intent is to give light to local areas that are forgotten and disregarded through initiatives opened mainly to young people. Indeed, 2hands Organization should focus its activities mainly on primary and secondary schools, presenting the current environmental issues to children. In fact, it is possible to create workshops in schools to educate children on recycling waste, respecting the nature and animals, and informing them how small acts can make the biggest difference.

7. Key Partnerships

In this building block, key partnerships are analyzed to establish strong relationships with partners who can supply the organization with the necessary recourses to achieve its goals. Indeed, 2hands Organization must create a network of various actors who participate in the system to protect the natural environment and improve the quality of life of local

communities. For instance, such a network can be composed of other nonprofits with similar or different scopes, but also corporations, schools and universities, the local government and institutions in which each 2hands headquarter cities operate.

As the intertwined lines in the brand logo, 2hands' mission is to create a huge network of people and organizations who take part in environmental change. Due to the nature of the nonprofit organization, which lacks mainly financial and physical resources, it is crucial for 2hands to establish collaborations with external actors who can provide the necessary resources to achieve goals.

It is important to establish close relationships with other nonprofit organizations that may have an environmental protection scope or not, to sustain each other in realizing missions. Indeed, 2hands has collaborated several times with other nonprofit environmental organizations, joining their forces to accomplish important results. Let us think of clean-up events that require human resources in order to achieve successful results. If 2hands opens its doors to other nonprofit organizations, the number of volunteers will increase with the number of garbage collected from the environment. In this way, the organization spreads a message of openness toward other realities.

Furthermore, collaborations with other type of nonprofit organization will create an extra service, increasing the positive reputation of 2hands Organization. Indeed, *the 2breathe* project that aims at creating an urban forest can represent a healthy place for people with disabilities. In this way, 2hands collaborate with associations that promote social integration, offering a double service from both environmental and social aspects.

Furthermore, relationships with corporations can provide 2hands, not only financial resources but mostly physical ones. Indeed, nowadays, several firms support financially nonprofit organizations to gain a positive reputation for their philanthropy. Notwithstanding, corporations can offer donations also through physical materials and knowledge. Due to the lack of resources, this type of relationship can be crucial for 2hands to achieve its goals. For instance, the organization could not execute clean-ups without a strong collaboration with the local waste disposal company, which has to dump all the garbage collected from 2hands volunteers.

Additionally, education is an essential sector where 2hands has to invest its energy to spread a positive message toward environmental protection. Collaborations with primary and secondary schools can provide the organization with an important experience to better

understand how to educate people, starting from children, to fight pollution. For instance, it could be interesting to create a vegetable garden in schools where children understand how to take care of it and how important is the nature for human life. Through games and funny workshops, it is possible to spread a positive message to the future generations who may become future 2hands volunteers, through which the organization can also gain human resources, which are necessary for their activities.

Furthermore, universities represent an important tool for recruiting young people who want to share their knowledge and skills, such as biologists and agronomists, and improve the quality of 2hands purpose-centered services. For instance, it may become necessary to create an R&D organ within the organization that collaborates with different academic entities to conduct research on environmental issues. For instance, the *2map* project can be used to collect data from different areas of the country where a massive amount of garbage is accumulated in the environment. Such data can be useful to monitor local areas and conduct a study on the variety of garbage collected by volunteers and the frequency of waste release in the environment in order to foresee people's behavior and implement efficient awareness campaigns and action programs. Additionally, 2hands can require the installation of camera traps in certain areas where garbage release is more frequent to the local city government. This is just an example of how important a collaboration with the city management is to sustain 2hands Organization's activities contributing positively to local communities.

Finally, institutions like the European Community can provide several opportunities to 2hands Organization. Indeed, many European Calls are open to organizations that provide either financial incentives or physical resources to help them achieve their mission.

8 – 9. Revenue Streams/Cost Structure

These two building blocks are crucial in efficiently managing financial resources to avoid unnecessary expenses and developing a strategy to increase the cash flow of revenues.

Transparency and efficient accountability must rule the nonprofit financial management to gain trust from donors and stakeholders. It is necessary to spread the idea that all of the revenues return in the organization's system to finance mission-based activities and projects. Indeed, most 2hands Organization's revenue streams come from private or public donations through fundraising campaigns and corporations' collaborations. Furthermore, merchandise selling represents a more minor but crucial portion of streams, through which 2hands can

spread awareness and attachment using the brand logo. Additionally, once the R&D department has conducted enough research on different environmental topics, they can represent a source of revenues by selling data and information to institutions and governments. For instance, 2hands can analyze local pollution levels and provide the collected information to the government, who can contribute financially to the organization to monitor such areas and implement strategic activities to improve the situation.

Furthermore, 2hands can develop several green projects, like the ones explained above, which are aimed at implementing focused short and medium-term interventions for the benefit of the environment and community. It is possible to gain revenues by selling products or services coming from these projects. For instance, the *2drink* project considers the sale of water bottles that can detect working water fountains in the city.

For an NGO, like 2hands Organization, revenue streams can be composed of its impact or the mission achievement. For instance, it is important to highlight the 21 tons of garbage collected from the environment in 2021, which currently represent already the 70% of the annual clean-ups goal. Furthermore, each 2hands city has a specific impact on their local community. For instance, another clean-up's goal is to neutralize the citizens' pollution released each year in the local environment. Indeed, according to Nature and Natural Resources (IUCN), annually, a citizen emits 0,54kg of garbage in the sea. A practical example of the positive impact of the organization can be 2hands Giovinazzo, a small town of approximately 20,000 citizens, that has removed in one year of clean-ups more than 2 tons of garbage from the sea, neutralizing the sea pollution provoked by 3,700 people, which is the 18,5% of the entire local population. Analyzing 2hands cost structure, it is evident that the organization has faced not easy difficulties due to its early-stage life and lack of resources. Indeed, the main costs regard clean-up materials (gloves, clamp waste collectors, garbage bags), volunteers' insurance, bank account expenses, merchandise production and delivery costs, professional service payment, such as graphics. The organization must construct an efficient strategy plan to generate cash flow to cover expenses. It is usual that at the beginning of the life of an organization, several initial costs represent an obstacle. Notwithstanding, the mission-focused approach of the team board and volunteers has set on the right path the organization's exponential growth to overcome such obstacles and achieve 2hands' vision.

10. Environmental Foresight

This part represents the new building block of the eco-business model canvas, which is crucial to analyze for 2hands Organization, given its nature of environmental protection organization. Indeed, in this section, an organization must identify current and future environmental changes that can influence its strategic decisions. First, given the presence of 2hands headquarters on the seaside, monitoring how coastal storms drag garbage ashore from the sea is necessary. Indeed, 2hands volunteers must respond actively to these natural phenomena executing prompt clean-ups to return to the natural land its original places. Furthermore, it is crucial to use eco-friendly materials for 2hands' merchandise to educate the customer in achieving more sustainable behaviors. For instance, the merchandise sold to raise funds used for the organization's projects considers water bottles that substitute plastic bottles, reusable canvas shopping bags, replacing plastic bags, portable ashtray, avoiding cigarette butts release in the environment.

Additionally, 2hands Organization must be constantly updated to government policies in favor of green transition and national and worldwide environmental news to inform their followers and supporters through effective awareness campaigns.

11. Social Foresight

In this building block, social trends are detected to construct efficient strategies for the organization. 2hands Organization found its fortune in the current historical period when environmental awareness and sustainable life behaviors represent a worldwide social trend. 2hands must take advantage of this phenomenon, attracting young people inside its network. Furthermore, the current green generation composed mainly of Millennials and Generation Z represents a strong human resource that can forcefully contribute to the organization's activities. Most of its volunteers and team borders participants have an average age between 18 and 30. Indeed, a key feature that distinguishes 2hands from its competitors is the ability to reevaluate volunteering activities, which are usually perceived as annoying from the youth. On the contrary, one of the 2hands' goals is to provide singular entertainment during its mission-focused events that offer young people a new experience of volunteering never lived before. For instance, clean-up events are organized with music entertainment, environmental-based games, and many other innovative approaches that enable people to enjoy time together, encouraging them to return and participate in the group.

Furthermore, it is important to also understand the social perception toward environmental issues. For instance, tons of garbage are thrown in nature by adults, mainly Silent Generation, Boomers and Generation X. This data enables 2hands to design efficient strategies through events and awareness campaigns based on the average age of target people.

12. Circular Business Model & Innovation

This last building block represents the core of Ecocanvas business model, where circular-approach strategies are presented. Due to its nature as an environmental nonprofit, 2hands Organization must consider the development of several strategies which execute innovative and sustainable ways of circular economy implementation.

Let us consider the circular business models presented in the second chapter, adopting some of them based on the organization's needs.

One of the main issues that must be solved in the organization's activities is the huge amount of garbage plastic bags during clean-up activities. All nine 2hands cities execute an average of two clean-ups per month each during the year, with a total of more than 200 clean-ups per year. Considering that, on average, about ten big garbage plastic bags are used during one clean-up to collect waste from the environment, it is evident to understand the enormous amount of disposable plastic of more than 2000 bags wasted used by the organization every year. According to this negative procedure, it is possible to implement a Reuse Business Model by integrating jute bags, that are robust, durable, and, mostly, reusable. This practice would drastically reduce the waste of resources, saving lots of money and avoiding plastic materials usage during the clean-up activities.

Furthermore, 2hands Organization can implement a Recycle Business Model using all the garbage coming from clean-up activities. Indeed, wastage has gained more value in the last years. The organization must take advantage of this resource to produce recycled materials, whose sales can represent a portion of revenues streams. During clean-ups, 2hands volunteers recycle while collecting garbage by dividing it into different bags depending on the material, mainly plastic and glass. It can be interesting to collaborate with *Precious Plastic*, an open-source project composed of a worldwide community involved in plastic recycling activities. There are about 15 Precious Plastic headquarters all over Italy where 2hands can provide the necessary plastic to create products. Nowadays, it is possible to create several objects with plastic. Indeed, 2hands can use its collected plastic to produce social purpose

products such as a bench to be placed in 2hands cities. In this way, the city government would be willing to purchase the bench composed of 100% recycled material that gives a green feature to the town and spreads a positive message of environmental awareness. Money generated by the sale of benches would come back in the organization system to fund additional projects and activities to achieve 2hands' mission.

Furthermore, all the garbage coming from clean-ups can become useful material to create workshops and projects. For instance, materials thrown in the environment can gain a second life by creating sculptures that refer to animals and nature. An art exhibition can be set up where visitors can give donations and all money is used to sustain the organization.

4.3 Future projections

Given the current enormous results that the organization has achieved in just one year, a positive scenario is the best representation for 2hands' future. Even though 2hands Organization is currently in an early life stage, it can start implementing such Ecocanvas to grow as an innovative entity at national level. Indeed, the organization has the potential to become a real reference point for environmental protection that connects different realities across the nation. More cities, from North to the South, will take part of the environmental change under the name of 2hands. More garbage will be removed from the environment and mostly more people will enjoy the positive impact on communities and local eco-systems. Potentially, thousands of people will take part of the organization's activities changing their life perspectives. Joining the organization would allow people not just to execute volunteering activities, feeling the satisfaction of helping others and the environment, but also to create lots of friendships, achieve personal goals and live new life experiences. The emotional attachment to the organization must not be underestimated allowing to intersect people's lives and feelings to create a huge community of individuals united for the same scope. Intertwining colorful lines and thousands of hands will create a huge environmental change, contributing to a philanthropic movement that positively will impact people's lives and the environment.

CONCLUSIONS

This thesis has demonstrated how important is the implementation of a circular approach in the world economy.

From a company perspective, CEBM implementation creates several advantages. Resources are managed better to reduce waste and maximize profit. Furthermore, the return of resources inside the company's system implies cost reduction, allowing organizations to save a great amount of money. At a broader level, CEBM would enable the creation of new markets and job opportunities, increasing the need for skilled employees required for this brand-new innovative system. Additionally, governments understood the importance of the circular economy, investing billions of dollars in the green transition. It is clear during current times how the green wave in favor of a more sustainable life habit has hit the world population. Mainly, young people, representing Generation Z, also denoted as Green Generation, have promoted awareness movements concerning the negative impact of the current linear economic model on the natural ecosystem. However, it is a paradox that the population itself also represents an obstacle for the circular economy implementation. Indeed, this thesis has demonstrated the customer's active role in the reversed supply chain that characterizes business models with a circular approach. Clearly, the main problem stands in a generational factor. While on the one hand, young people promote sustainable development, on the other hand, older generations are more reluctant toward changing habits in favor of more sustainable ones. Education represents a long-term solution to this dilemma, through which people are raised since their birth with morals in favor of natural ecosystem respect and sustainable life behaviors. However, an impelling short-term solution must be implemented to overcome current environmental and social issues. Indeed, governments and organizations play a crucial role in the green transition. Lots of actors have to take part in the change. Mostly, nonprofits organizations have the power to influence people's minds due to their mission-based purpose. Indeed, this thesis has shown the important position of nonprofit organizations in the marketplace due to the increasing number of donations from more cultured and aware people. Nonprofits organizations must apply a business model to manage mission-based activities better and increment their positive impact on communities. Furthermore, nonprofits must be the pioneer of CEBM implementation due to their scarcity in resource availability, mainly physical and financial ones. Hence, a circular approach would

allow nonprofit organizations to reintegrate resources inside the system after their usage, avoid waste of materials and money, and become a role model for people and institutions in favor of environmental protection. This thesis has demonstrated practically how secondary materials can be used to provide products and services to the community helping the environment and generating cash flow to be reinvested in the organization's activities. Indeed, by constructing 2hands Organization's business model, it was possible to prove how a nonprofit can implement several activities and projects in a broader spectrum. Not only clean-up activities and awareness campaigns but also green projects enabled 2hands to help the environment and improve the quality of communities' life. Hence, 2hands Organization has all the prerequisites to become the primary environmental protector at a national level. The choice of 2hands Organization, as a case study for this thesis, is not a coincidence. I experienced personally how two hands have the power to make a change. When I decided to found this organization just one year ago, I would not expect such great results. 2hands Organization represents the hope for a better future that stands in the current and future generations ability to no longer remain indifferent and dedicate their energy to take part in the change. Hundreds of people who intersect their hands for the same scope represent the best feature of humanity. We are part of a wonderful ecosystem that gave us everything we need, and it is our job to give back to nature what it has given to us.

The change has just begun.

Two hands can really change the world.

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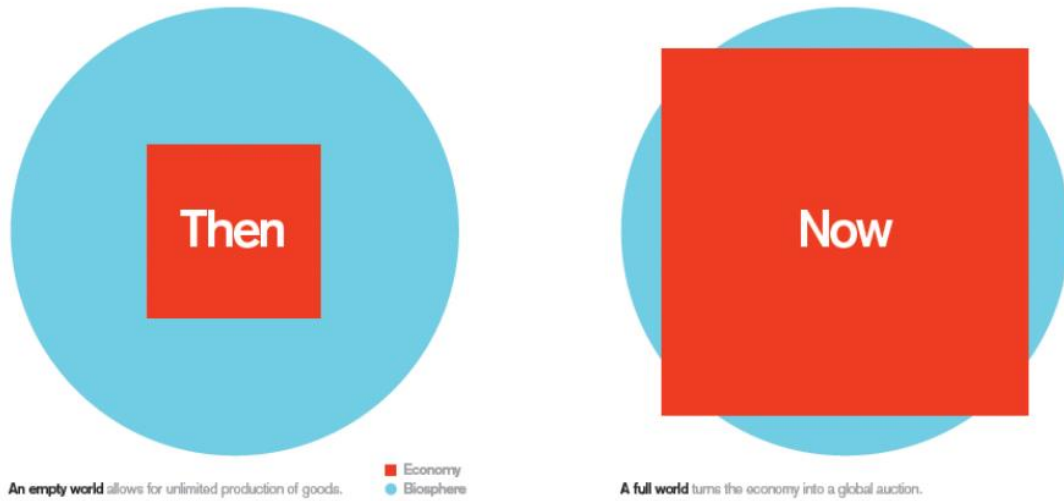
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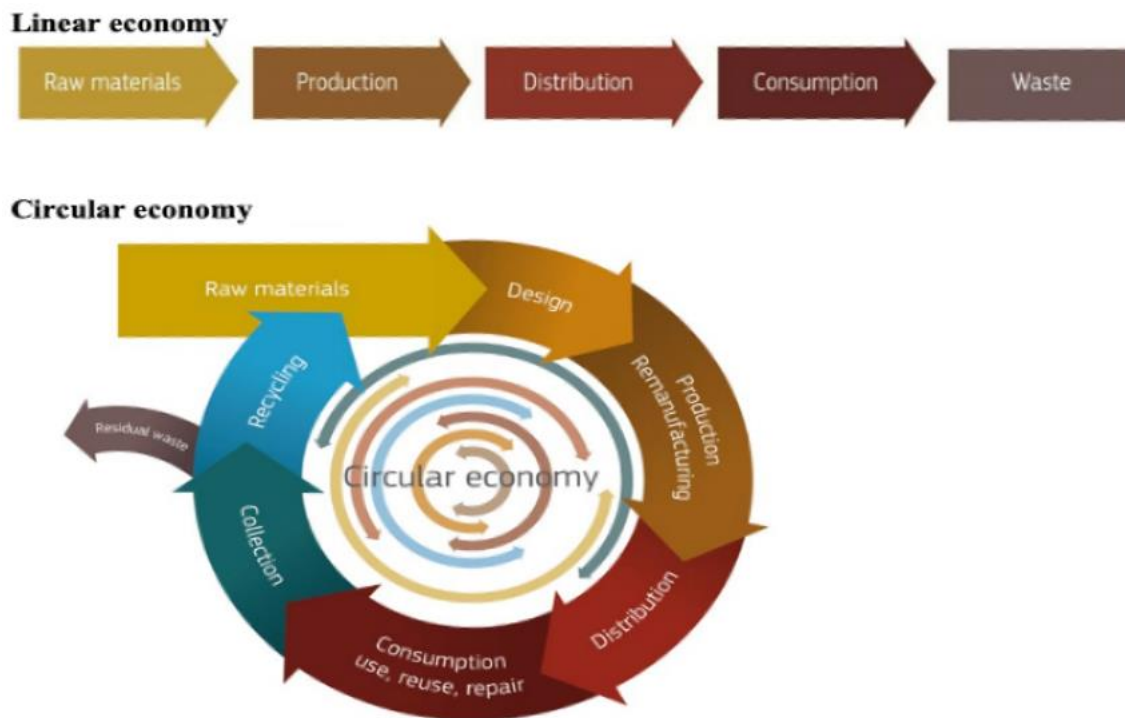
TABLES and FIGURES

Figure 1



Source: Global Footprint, Annual Report 2012, p.21

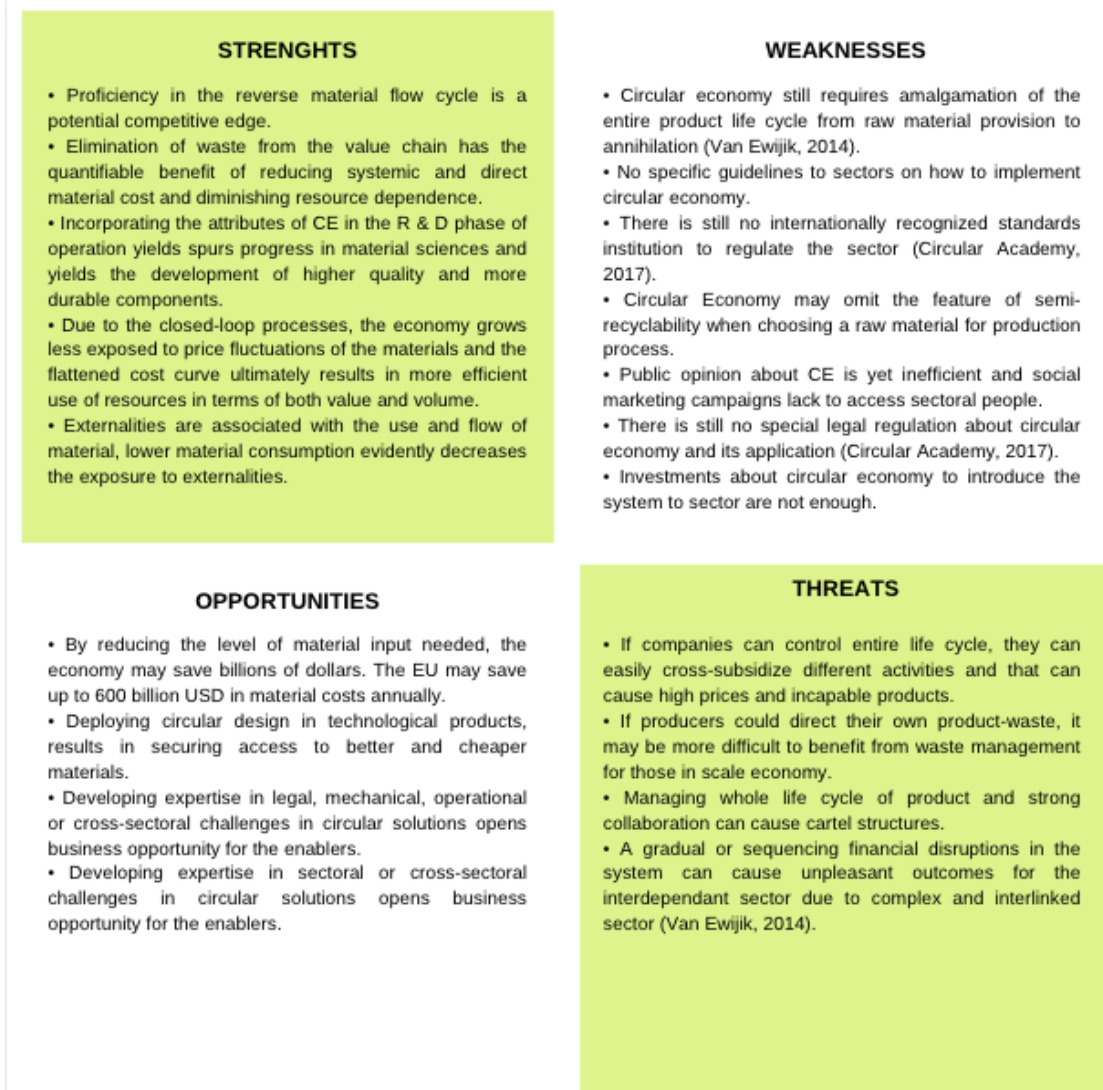
Figure 2



Source: European Commission, DG Environment (2014)

Figure 3

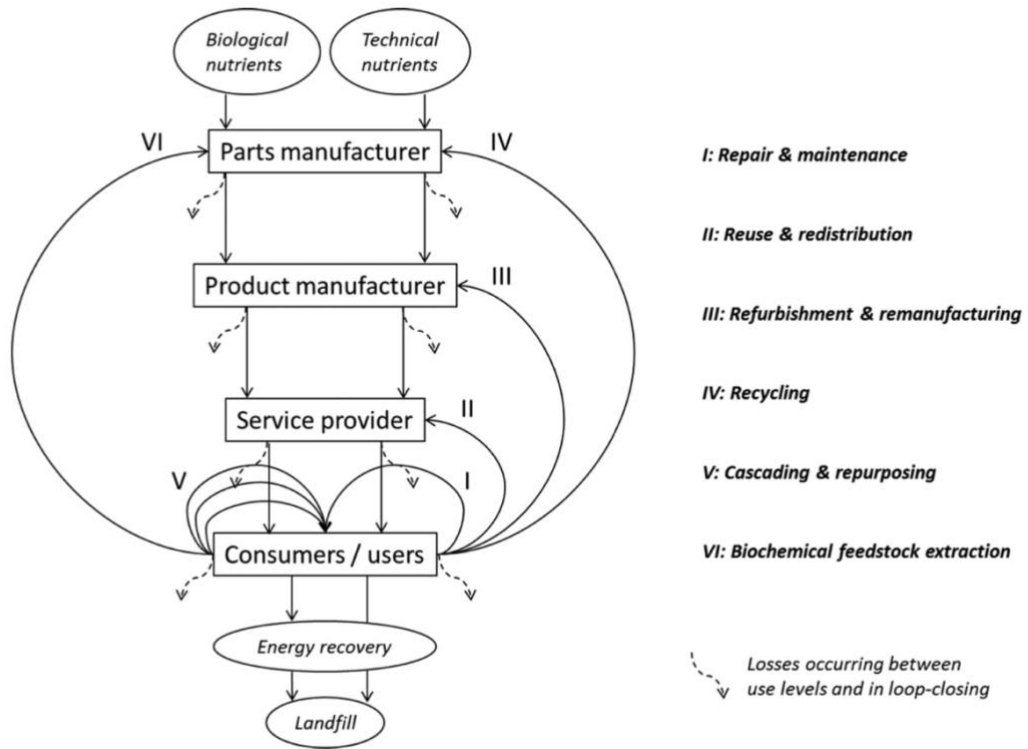
SWOT Analysis: Linear Economy vs. Circular Economy



Source: Sariatli, Furkan. "Linear Economy Versus Circular Economy: A Comparative and Analyzer Study for Optimization of Economy for Sustainability" *Visegrad Journal on Bioeconomy and Sustainable Development*, vol.6, no.1, 2017, pp 34.)

Figure 4

Major Business Models in the Circular Economy Implementation



Source: Ellen MacArthur Foundation, 2012

Figure 5

2hands Organization Logo



Source: 2hands Organization <https://www.2handsorganization.com/it/>

Figure 6

2hands Organization's Ecocanvas

