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A framework for investigating Innovation and Institutional Change: the case of Sustainability

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MANAGEMENT ENGINEERING & PRODUCT-SERVICE SYSTEM DESIGN

INGEGNERIA GESTIONALE & DESIGN DEL SISTEMA PRODOTTO-SERVIZIO

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Abstract

Institutions are systems of well-established and widely followed social rules that structure social interactions, representing meanings and norms able to constrain human actions. Proto-institutions are institutions in the making, as they are not well-established but have the power to be so. Innovation is the process of shaping the rules to co-create value in a service ecosystem, thus meaning to change institutions. However, change is not purely about creating new institutions, but for this change to happen, a process of breaking, making, and maintaining former institutionalized rules is necessary.

The two topics of innovation and institutions are intrinsically connected and the dissertation aims at developing a framework of analysis of the two. In particular, the authors focus on studying macro-institutional change enhancement of innovations and the resulting integration of new micro-institutions.

To study the different approaches to innovation and micro-institutional change integration, the dissertation runs a qualitative multiple case-based research. The authors selected the empirical context of the megatrend of sustainability and therefore the macro-institutional change toward sustainability orientation. The thesis studies 14 cases of eco-innovations: new products or services that can reduce the environmental impact of the firm that introduced them. The fourteen cases belong to different firms and are clustered into four different industries (fashion, furniture, beauty, and consumer electronics) where sustainability has been a critical debate point. All the firms operate in the B2C business as the goal of the authors is to have a heterogeneous but comparable mix of cases.

Through the analysis of firms, sustainability actions, business models, and micro-institutional changes, the research investigates innovation and institutional change approaches. Then, through a two-side framework; one dimension of Institutional Change Integration (ICI) and Innovation type, the dissertation formalizes four approaches that firms can follow. The results support the theory suggesting that companies adopting radical innovation result in higher ICI and get the competitive advantage as leaders of the change. On the contrary, companies with lower ICI tend to adopt an incremental approach to reduce risk and stay competitive on other dimensions. Furthermore, the thesis elaborates on strategic choices to guide the positioning of firms and consequential advantages.

As of many studies, the paperwork presents limitations that leave further exploration for the future; specifically, adopting a more quantitative approach, including more case studies and studying different macro-institutional changes or innovations.

Abstract in Italiano

Le istituzioni sono sistemi di regole ben stabilite e largamente seguite che guidano le interazioni sociali, e rappresentano norme in grado di reprimere l'azione umana. Le proto-istituzioni vengono definite come istituzioni "in divenire", non essendo consolidate ma avendo il potenziale per esserlo. L'innovazione rappresenta il processo per definire le regole atte alla co-creazione di valore negli ecosistemi di servizi, ovvero al cambiamento delle istituzioni. Tuttavia, il cambiamento non è puramente relativo alla creazione di nuove istituzioni. Affinché esso possa avvenire, è necessario un processo di rottura, ricostruzione e standardizzazione delle precedenti regole istituzionalizzate.

I concetti di innovazione e istituzione sono intrinsecamente connessi, e la dissertazione presentata tenta di sviluppare un framework di analisi dei due. In particolare, gli autori si concentrano sullo studio dell'apporto delle innovazioni al cambiamento macro-istituzionale e l'integrazione di nuove micro-istituzioni che ne deriva.

Al fine della ricerca sui diversi approcci relativi all'innovazione e cambio istituzionale, la dissertazione svolge un'analisi di tipo qualitativo su più casi studio. Gli autori hanno selezionato il megatrend della sostenibilità quale contesto empirico di analisi e quale cambiamento macro-istituzionale verso un orientamento sostenibile. Lo studio analizza 14 casi di eco-innovazione: prodotti o servizi che possano ridurre l'impatto ambientale della realtà che li ha introdotti. I quattordici casi appartengono a diverse aziende che operano su quattro differenti industrie (moda, mobilio, cosmetica, elettronica), in questi settori la sostenibilità rappresenta un punto critico. Le aziende si differenziano per prodotto venduti ma operano tutte principalmente in un mercato B2C. La scelta dei casi è stata svolta al fine di selezionare un campione eterogeneo ma comparabile di aziende.

Attraverso l'analisi aziendale di sostenibilità, del business model e del cambiamento micro-istituzionale, la ricerca investiga approcci innovativi e di cambio istituzionale. Tramite un modello a due dimensioni - integrazione con il cambio istituzionale (ICI) e tipologia di innovazione - la dissertazione formalizza quattro approcci che le aziende possono adottare. I risultati supportano la teoria suggerendo che le aziende che adottano innovazioni radicali hanno una più alta ICI e beneficiano del vantaggio di essere leader rispetto al cambio istituzionale. In parallelo, le aziende con basso ICI tendono ad avere un approccio di innovazione incrementale, questo per ridurre i rischi e restare competitivi su altri fattori. In aggiunta, la tesi elabora scelte strategiche per guidare il posizionamento dell'azienda e conseguenti vantaggi.

Come molte analisi simili, la tesi presenta delle limitazioni che lasciano spazio per future esplorazioni; nello specifico gli autori suggeriscono di adottare un metodo quantitativo di analisi dei casi, di includere un campione più popolato e di studiare differenti cambiamenti macro-istituzionali o innovazioni.

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Executive Summary

1. Introduction

"It is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to change" (Mogale, 2018). This simple principle of Darwin's evolutionism is as true in nature as in the economic markets (Chen, Yin, & Mei, 2018; Fagerberg, Martin, & Andersen, 2013; Lundvall, 2016). To run a durable business, adaptation is crucial and it comes from the ability of a business to innovate itself (Gloet & Terziovski, 2004). Yet, the ability to innovate is not the ability to create something new; innovation must meet and be accepted by the ecosystem it occurs or otherwise is an effort of creativity (Porter, 1990; Fetrati, 2018). To discover what an ecosystem accepts companies study rules, norms, values, and beliefs that govern it, therefore investigating institutions and institutional change theory (North, 1990; Koskela-Huotari et al., 2016; Bush, 1987).

The research has the goal to analyse two interconnected topics: Innovation and Institution. These concepts have been extensively studied (Koskela-Huotari et al., 2016). However, the authors of the paper contend that a framework of analysis on how to strategically leverage both the innovation and institutional change process is not recognized among the literature.

2. Literature review

The first part of the literature review aims at analyzing the concept of innovation. Due to the fragmented nature of such a concept, it is difficult to provide a unique definition (Oke, 2007). Furthermore, the perspective of innovation itself has evolved from pure internal operation to the result of a collaborative effort (Chesbrough, 2006; Kindström, Kowalkowski, & Sandberg, 2013; Rusanen, Halinen-Kaila, & Jaakkola, 2014). In this sense, the perspective adopted on innovation that is adopted in this research is that of the Service-Dominant (S-D) Logic, where innovation is the novel and better way for actors to co-create value through resource integration (Lusch & Nambisan, 2015; Vargo, Wieland, & Akaka, 2015).

Innovation may be classified in different typologies (Garcia & Calantone, 2002), but the main classification that is widely adopted through the literature is the one of Radical versus Incremental Innovation (Norman & Verganti, 2014). In this framework, Incremental Innovation is improving within a given frame or solution, while Radical Innovation is a process of changing the frame, with high risks and high rewards (Norman & Verganti, 2014). However, what is important to highlight is that without Radical Innovation, Incremental Innovation reaches a limit. Without Incremental Innovation, the potential enabled by radical change is not captured (Norman & Verganti, 2014).

In order to innovate, companies must take a strategic choice of defining the direction to follow (Ozkaya et al. 2015;), for which it is particularly valuable to leverage the strategical asset of Market Knowledge Competence (Augusto & Coelho, 2009).

The second part of the literature review focuses on the field of institution and institutional change. These concepts have been analyzed deeply by many scholars (Coccia, M. (2018). it is not easy likewise to recognize a single and massively shared definition in literature (Hodgson, 2006). Hence, the research focuses on defining the concept of institutions as systems of well-established and widely followed social rules that structure social interactions (Knight; 1992), and distinguish between institutionalized rules and convention, while institutions and institutional arrangement are interchangeable (Hodgson, 2006). The role of the transformation of institutional arrangement in service ecosystems is studied through the institutional change theory. It is important to highlight that the institutional changes within a service ecosystem are not just the creation of new institutions, but three concurrently breaking former institutions of service ecosystems, making new ones, and at the same time also maintaining some of the former institutional arrangement governing the service ecosystem (Koskela-Huotari, Edvardsson, Jonas, Sörhammar, & Witell, 2016). Through the lenses of the institutional change theory, innovation is defined as the process of shaping the institutional arrangements in service ecosystems (Vargo, Wieland, & Akaka, 2015). Innovations are enhanced by megatrends (Greenwood et al., 2002), and they bring the development of proto-institutions, which represent “institutions in the making” in service ecosystems (Lawrence et al., 2002). The literature review holds as the basis of the analysis of the interplay between innovation and institutional change. Most of the theories studied in the literature review are endorsed in the case analysis and the discussion. The theory supports the selection of the empirical context of analysis and works as the basis for the conceptual framework of analysis. The two fields of institutional change and innovation are intrinsically connected as previously illustrated. The authors aim at filling the literature gap by studying through the lenses of the theory a framework to classify different approaches followed by companies in the development of innovation and institutional change integration.

3. Methodology

The authors' objective is to develop a conceptual framework of analysis on the interplay of innovation and institution. To achieve this, the research decides to carry out a qualitative case analysis, investigating the empirical context of sustainability.

Sustainability is a megatrend that is enhancing new institutional arrangements in many companies in different industries (Lubin & Esty, 2010). In particular, the companies' effort to integrate sustainable practices and concerns is defined as sustainability orientation (Roxas and Coetzer, 2012). It is the institutional change enhanced by the megatrend of sustainability.

To understand the interplay of innovation and institutional changes, the cases are selected among those companies that have developed an eco-innovation, which is an innovation to create valuable products or services that can drastically reduce the environmental impact (Fussler & James, 1996).

In particular, the authors conducted a multiple case-based research study, performed following the replication logic (Eisenhardt, 1989; Yin, 2014) and thus facilitating the study of inter-personal as well as inter-organizational relationships at different levels of analysis (Robson, 2002). In replication logic, cases, which confirm emergent relationships, enhance confidence in the validity of the relationships. Cases that disconfirm the relationships often can provide an opportunity to refine and extend the theory (Eisenhardt, 1989).

According to Eisenhardt this method is suitable for theory building or finding cross-observational findings and leads to insights beyond and between individual cases (Eisenhardt, 1989). The cases are selected by looking among different industries, to have a wider perspective and test the presence patterns despite differences in products offered. All the cases selected are an example of companies operating in the B2C business model to guarantee coherency throughout the analysis concerning the business structure.

The selected cases belong to four different industries: fashion, furniture, beauty, and consumer electronics. The listed industries are selected as they represent crucial areas regarding the empirical context of the research: sustainability.

To standardize and to make each case analysis comparable to the others, the research adopts the frameworks introduced in the literature review, and an adaptation of the Advanced Business Model Canvas consisting of four blocks: Business Infrastructure, Customer Value, Customer Infrastructure, and Management Infrastructure. The analysis of each of the cases is structured in four sections as follows:

1. A brief overview of the firm: detailed description of the businesses. Here, the authors define the level of Market Knowledge Competencies (MKC) of the firm, which shows the firm's ability to develop a better understanding of both its customers and competitors (Li and Calantone, 1998), and its introduction makes the authors able to divide the companies into three approaches toward it: Low, High MKC.
2. Sustainability Orientation: description of the integration of companies' sustainability orientation. By evaluating for each block of the adaptation of the advanced BMC whether each company's performance is above or below the sample average, the cases are defined as having a High, Medium-High, Medium-Low, or Low Sustainability Orientation;
3. Innovation Case Analysis: description of the main characteristics of the innovation introduced by the company that enables the authors to reflect upon why all the selected cases are examples of eco-innovation. Here, cases are framed in Norman and Verganti, model regarding Technology

and Meaning innovation . In addition to this, the authors reflected on whether the innovation in the analysis is a case of proto-institution creation or adoption, following Kleinaltenkamp's model previously introduced.

4. Micro-institution: analysis of every single innovation bringing micro-institutional change within service ecosystems (Huotari et al., 2016). To coherently proceed in alignment with the Sustainability Orientation analysis, the changes introduced by the innovation are illustrated in the same four clusters of the authors' adaptation of the Advanced BMC.

4. Case Studies

Sustainability is a concept that always existed, but the first and most recognized definition of the term, and more in particular of sustainable development, comes from 1987 in the Brundtland Report. Here, it was defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland, 1987).

Later on, in the Agenda for Development, three main dimensions enter the definition of sustainability: the social, the economic, and the environmental (UN, 1997). Over time sustainability as a concept entered both politics and the economy, becoming essential for the contemporary assessment of progress, responsibility, freedom, and culture (Bachmann, 2010).

Today, sustainability is a megatrend (Lubin & Esty, 2010). Hence, it is a critical driver of organizational and technological innovation, and it is a key factor in companies' pursuit of long-term competitive advantage (Nidumolu, Prahalad, and Rangaswami, 2009). Because of that, many companies across different industries are following a sustainability orientation (SO) (Roxas and Coetzer, 2012).

Institutions and SO can be seen as made by different nested and contained levels (Chandler and Vargo; 2011):

- Micro (e.g., companies);
- Meso (e.g., industries);
- Macro (e.g., nations, and global markets).

However SO did not receive yet global recognition among all the industries and companies (Roxas and Coetzer, 2012). Today, the service ecosystem is still in a transition phase where SO is shaping it to be aligned with the macro-trend of sustainability. In this sense, SO at the macro-trend can still be defined as a proto-institution; "institutions in the making" (Lawrence et al., 2002). Adopting the model proposed by Kleinaltenkamp in 2018, the macro service-ecosystem of the world appears to be in transition and sustainability orientation is perceived to be adopted as the proto-institution that guides the overall institutional arrangement toward the megatrend of sustainability (Figure 1).

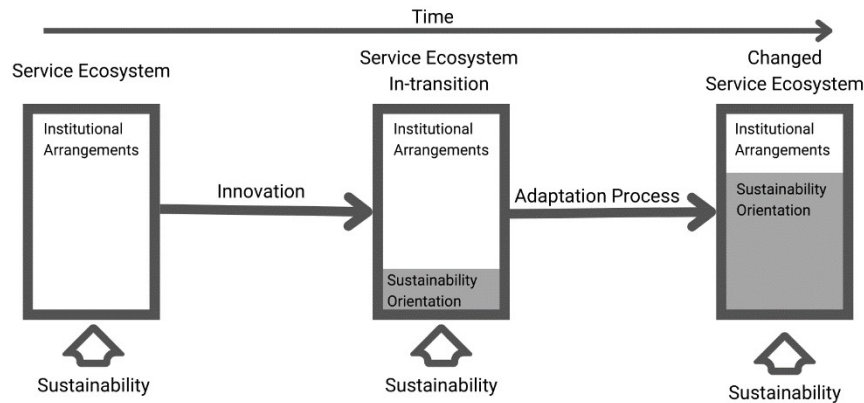


Figure 1: Kleinaltenkamp model of the transition towards a change in the service ecosystem

On the other hand, by changing the level of analysis and taking into account industry or company-level, sustainability orientation is often a well-established institution. However, as validated by the case analysis, the level of integration of SO varies among different companies. This offers the authors the opportunity to study a heterogeneous group of cases among distinct industries.

The concept of institutions, institutional change, sustainability, and sustainable development are intrinsically intertwined. Indeed, in 1987 the World Commission for Sustainable Development defines sustainable development as: "...a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change ... enhance both current and future potential to meet human needs and aspirations" (Brundtland, 1987). Therefore, sustainability orientation as an institutional arrangement can enhance behaviors, habits, and social structure to evolve toward more sustainable development.

Companies have to balance the forced trade-offs between sustainability goals and profitability targets (Claudy, Peerson, Pagell, 2016). To balance the two, Market Knowledge Competence is a fundamental tool to adjust economic, environmental, and social objectives (Ozkaya et al. 2015).

The authors focus on conducting a qualitative case study analysis of fourteen cases of eco-innovations to confirm the theory and get some insight to solve the research question. It is of paramount importance to clarify that the authors decide to run the whole analysis of the case studies at a micro-level, and company-level.

The analysis of the cases focuses on investigating four dimensions to frame the cases into two models and then each case of eco-innovation is analyzed by studying the micro institutional changes that originated from the innovation. The results of the case study are illustrated in Figure 2.

	Business Infrastructure	Customer Value	Customer Infrastructure	Management Infrastructure	
Patagonia	+	+	+	+	High
Fairphone	+	+	+	+	High
Save The Duck	+	+	+	+	High
Manteco	+	+	+	+	High
Carl Hansen	+	+	+	-	High
North Face	+	+	+	-	Medium-High
Apple	-	+	-	+	Medium-High
H&M	-	+	-	-	Medium-Low
Lush	-	+	-	+	Medium-Low
Ikea	-	-	-	-	Low
Moncler	-	-	-	-	Low
Zara	-	-	-	-	Low
Louis Vuitton	-	-	-	-	Low
Garnier	-	-	-	-	Low

Figure 2 Results from the analysis of the cases

After the end of the analysis, the research collects the findings through a framework of analysis able to study Sustainability Orientation (SO) and Market Knowledge Competence (MKC), defined SO-MKC (Fig 3). This framework is introduced to position the companies according to their ability to embrace the institutional change and to elaborate a first classification of the case study.

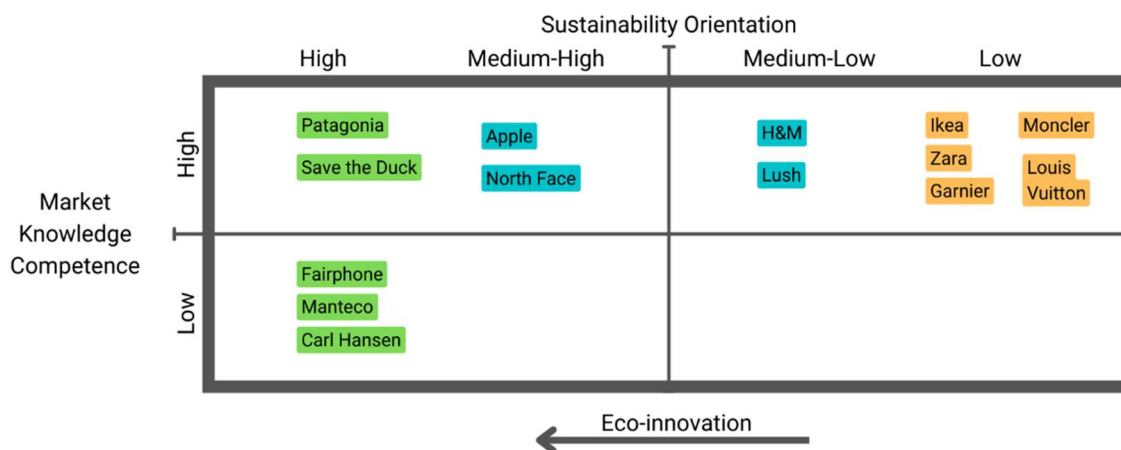


Figure 3 SO-MKC Framework

Then, the authors focus on companies' typologies of innovation by placing the cases in Norman and Verganti's framework Figure 4 (Norman & Verganti, 2014).

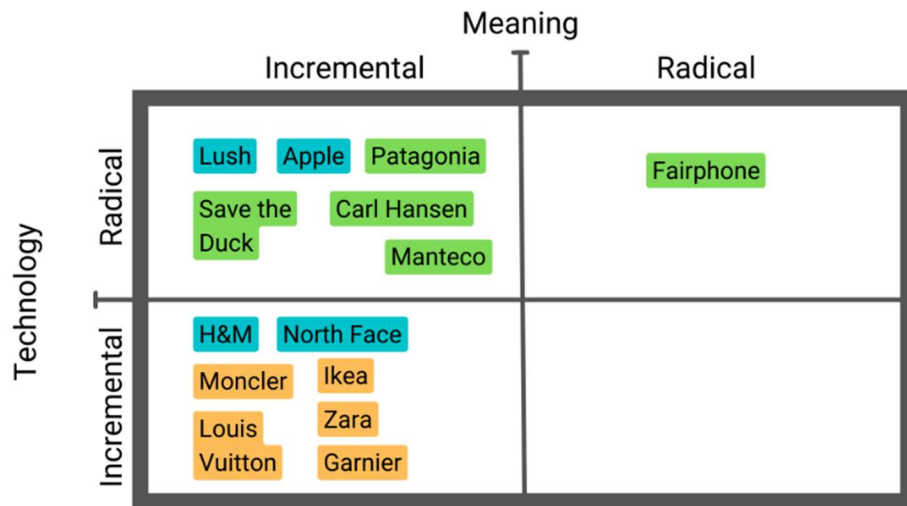


Figure 4 Verganti's framework on Technology and Meaning Innovation

Out of the two frameworks, the authors highlighted some of the main patterns that will be generalized from the context of institutional change and that will be illustrated in the discussion of the framework proposed.

5. Discussion

Through these two frameworks, the research discusses the results by first focusing on the two main typologies of innovations (Radical and Incremental) and on how the process of shaping the institutional arrangement varies.

In Radical Innovation, the change brings the creation of proto-institutions and then changed service ecosystems have higher levels of institutional change integration. On the other hand, Incremental Innovation is a quicker process of shaping the institutional arrangements.

Radical innovations require more steps and therefore effort and risk, but result in a bigger impact on the micro-institutions.

The two processes are illustrated in Figures 5 and 6.

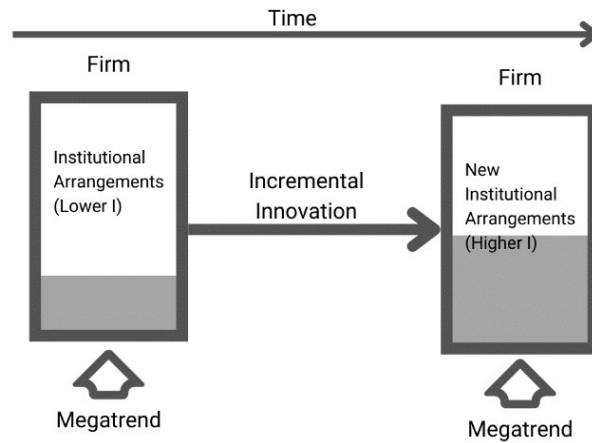


Figure 5 Incremental Innovation

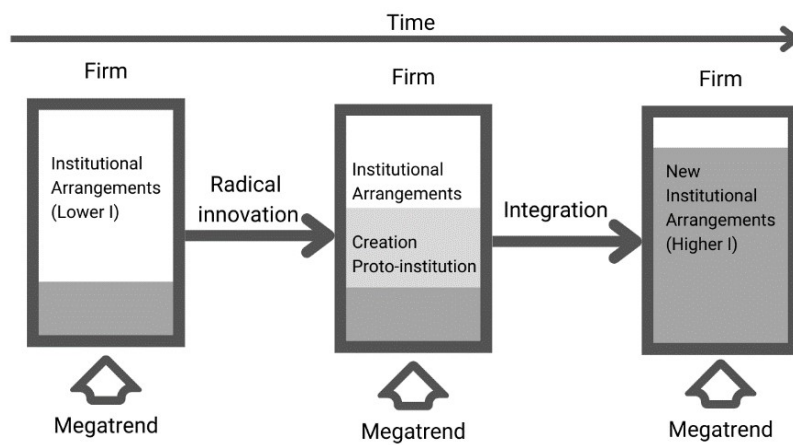


Figure 6 Radical Innovation

In the research, the authors create and propose a new framework to study institutional change interplay with innovation development Figure 7. Hereby, the authors decide to simplify the dimensions to differentiate between two main types of innovation (Radical and Incremental) and two levels of institutional change Integration (High, Low). The hypothesized matrix presented by the authors needs to be considered as a dynamic tool. The model is a qualitative validation based on the benchmark of the sample average over time, new innovations, and new institutional changes will modify the positioning of the companies.

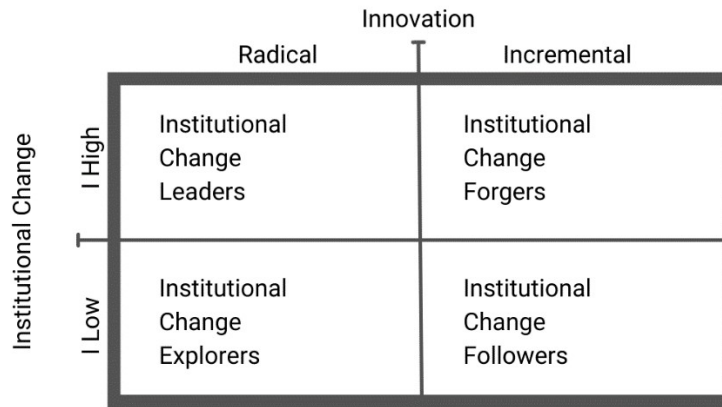


Figure 7 Framework proposed to study institutional change interplay with innovation development

Therefore, the authors define four different approaches companies to institutional change and innovation development:

Institutional Change Leaders: radical changes in technology and high integration of institutional changes in the firm. It shows the core belief of companies to integrate micro-institutional changes aligned with the megatrend.

Institutional Change Forgers: deep integration of micro-institutional changes in the business model without developing any radical innovation. The term “Forgers” is referred to the pretending of being more aligned with the institutional change than the company truly is.

Institutional Change Explorers: radical innovation without an entire integration of the institutional changes throughout the entire company. The term “Explorer” aims at highlighting the effort placed and the experimentation approach that companies place in developing innovation aligned with the macro institution.

Institutional change Followers: low level of integration on institutional practices and low investments towards innovation for the alignment of companies’ micro and macro-institutions.

Having defined the underlining features of the different quadrants, the authors place the fourteen cases within the framework and propose a series of common features able to describe different approaches Figure 8.

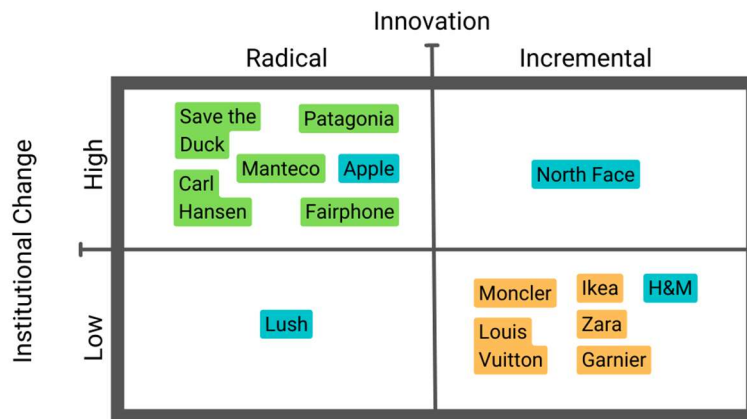


Figure 8 Selected cases placed in the framework proposed

The framework shows a high density in the upper-left and bottom-right quadrants, thus being Institutional Change Leaders and Institutional Change Followers. Indeed, they represent the more rewarding (Leader) and more efficient areas (Followers).

Companies placed in the two low-populated quadrants, Institutional Change Forgers and Institutional Change Explorers, are profitable and own a respectful share in their markets. However, by analyzing the cases the authors identified that both the areas present some criticalities.

Institutional Change Explorers are not able to convert the higher investment by developing a radical innovation in a strong institutional change impact on the firm. On the other hand, Institutional Change Forgers often integrate higher levels of institutional changes within the company while keeping a conservative approach, developing incremental innovation, and therefore are not truly able to convert the integration of the institutional changes into products or services delivered. In the specific case of sustainability, the environmental impact of The North Face is not as high as its sustainable orientation.

The risk in both cases is to not be rewarded but penalized by the final customer.

Institutions influence the development and change of the service ecosystem on which they act.

Strategically, it is more efficient to work on the institutional arrangement in a single block of the authors' adaptation of the advanced BMC than to drastically change the innovation process and approach of a firm. However, this depends on the strategic choices and plans of the firm, and both the field (institutional change integration and Innovation) are pursuable. Therefore, if companies would like to innovate in a new way since this may lead to higher rewards and a more profitable environment, the position can shift vertically and horizontally to move toward Institutional Change Leader or Follower.

Companies that are mainly focused on competing on price, mass-market businesses, face more obstacles in moving toward the Institutional Change Followers quadrant since for innovation the costs and

inefficiencies are high (Norman & Verganti, 2014). Therefore, they should still work to innovate to be aligned with macro-institutional change, but they would best adopt an Institutional Change Followers approach.

On the other hand, those companies that position as Institutional Change Leaders can benefit from an offer more aligned with the global megatrend and thereby highly valued by the customers. This can justify higher price policies that justify the effort of the companies to develop a radical innovation. Institutional Change Leader can also leverage on a niche customer segment that is particularly aligned with institutional change value and therefore is loyal to the brand. In the case of sustainability, these are all the customers particularly conscious about their environmental impact, who therefore would not switch to other brands.

6. Conclusions

To conclude, the authors reflect on the theoretical and managerial implications of a company developing innovation aligned with global megatrends.

The research develops some managerial implications that can support strategical choices. As the beginning of the research starts with Darwin's theory, the need to innovate and adapt to the service ecosystem is the basis of any long-running firm.

The research provides some valuable insights to have a clearer overview of the company and competitor position and to advantage of the firm's assets in order to gain a competitive advantage. The findings can be applied to any megatrend and macro-institutional change.

Then, the managers can also adopt the research as a benchmark to analyze what are the main common variables in each quadrant and then decide to work on one of these in order to increase the overall institutional change integration level.

Lastly, the research can also be studied in other megatrend contexts, and further research should be carried out to forecast similar innovation development and evolution of firms reaching bigger competitive advantages.

The main theoretical contribution of the research is three. First, it contributes theoretically to the formalization of the process of innovation and shaping of new micro-institutions aligned with a megatrend. Second, the research represents a theoretical contribution to the new intermediary role that the MKC has to identify new megatrends and enable companies to reposition themselves to be aligned with them. Third, the research contributes to the literature by proposing a new conceptual framework of analysis of the interplay of innovation and institutional changes.

The findings have been interpreted in light of some limitations. The major limitations are connected to the qualitative approach, the sampling strategy, and the selection phase. More in detail, the qualitative approach led to a possible biased analysis. In addition to this, the low number of cases collected results in rich in understanding, but quite reduced in generalizability. In addition to this, the authors focused the selection on one single typology of innovation (Eco-Innovation), one institution (Sustainability-Orientation), and one specific typology of business model (B2C).

The previously exposed limitation can be overcome through future research. Therefore, the authors are suggesting to investigate other typologies of innovations and institutions currently emerging.

1. Introduction

“It is not the strongest of the species that survives, nor the most intelligent. It is the one that is most adaptable to change” (Mogale, 2018). This simple principle of Darwin's Evolutionism is as true in the tundra and rainforest ecosystems as it is in complex ecosystem such as economic markets or any service ecosystem (Chen, Yin, & Mei, 2018; Fagerberg, Martin, & Andersen, 2013; Lundvall, 2016). To run a durable business adaptation it is crucial and it comes from the ability of a business to innovate itself (Veryzer and Borja de Mozota, 2005;).

However, the ability to innovate is not the ability to create something new; in order to occur, innovation must meet and be accepted by the ecosystem, otherwise is an effort of creativity (Porter, 1990; Fetrati, 2018). To learn what the ecosystem can accept, companies must study which are the institutional arrangements guiding the ecosystem, then must study institutions and institutional change theory (Vargo et al., 2015). Not by chance, the thesis begins by citing Darwin's theory. Institutional change can be seen as a process of natural evolution of service ecosystems and the ability of players to adapt to such context depends on their ability to innovate.

The dissertation studies the interplay of innovation and institution and proposes a conceptual framework of analysis of companies' reaction to macro-institutional changes enhanced by megatrend.

2. Literature Review

2.1. Introduction

The following literature review has the goal to analyze two interconnected topics: Innovation and Institution. These topics have been extensively studied (Koskela-Huotari et al, 2016; Normann, 2001). However, the authors of the thesis contend that the association between innovation and institutional change has not been formalized yet.

The first part of the literature review aims at analyzing the concept of innovation. Due to the fragmented nature of such a concept, it is difficult to provide a unique definition (Oke, 2007). Furthermore, the perspective of innovation itself has evolved from pure internal operation to the result of a collaborative effort (Chesbrough, 2006; Kindström, Kowalkowski, & Sandberg, 2013; Rusanen, Halinen-Kaila, & Jaakkola, 2014). In this sense, the perspective on innovation that is adopted in this thesis and analyzed in the upcoming literature review is that of the Service-Dominant (S-D) Logic; here, innovation is the novel and better way for actors to co-create value through resource integration (Lusch & Nambisan, 2015; Vargo, Wieland, Akaka, 2015). Other than the conceptualization of innovation in the literature review, both service ecosystems and the actors involved are better defined.

The second part of the literature review focuses on the field of the institution and institutional change. Many scholars (Bush, 1987; Coccia, 2018; Hodgson, 2006) have analyzed this latter concept deeply. As for innovation, also in this case it is not easy to recognize a single definition that is massively shared in the literature (Koskela-Huotari et al, 2016). Hence, the second part of the literature review focuses on defining the concept of institution, and then on the role of institutional change in supporting innovation. These two topics are intrinsically connected (Koskela-Huotari et al, 2016).

The literature review holds as the basis of the analysis of the interplay between innovation and institutional change. Most of the theories studied in the literature are endorsed in the case analysis and support the selection of the context. Furthermore, the literature review works as the basis to draw a conceptual framework of analysis and supports the results of the thesis.

2.2. Innovation

The incipit quote from Darwin's evolution theory, which theorizes the importance of natural innovation in supporting the evolution of species (Mogale, 2018), was used as even outside of the biological reign innovation plays a relevant role in the dynamics of economic growth and socio-economic development (Chen, Yin, & Mei, 2018; Fagerberg, Martin, & Andersen, 2013; Lundvall, 2016). Some even suggest that the capacity to create a source of technological, social, and cultural change (to innovate) is at the root of our biological nature and is what made us human (Edwards; 2018). Innovation is a cardinal in the theories of economic growth and sustainability agendas worldwide (OECD, 2016; Fagerberg, 2018).

Innovation is a multidimensional concept that according to the specific perspective of analysis acquires multiple meanings and definitions (Norman & Verganti, 2014). However, most of the perspectives on innovation present an evolution of the concept from the result of an internal effort to the co-creation of a network of actors working communally (Chesbrough, 2006; Kindström, Kowalkowski, & Sandberg, 2013; Rusanen, Halinen-Kaila, & Jaakkola, 2014). Therefore, the definitions of innovation have increasingly taken a holistic perspective where innovation is generated no longer within the boundaries of an organization (Norman & Verganti, 2014). Through the literature review, it is shown that this is in line with the Service Design (S-D) logic of innovation.

The following chapters are dedicated to defining the concept and some of the typologies and classifications of innovation. Then, the role of design in supporting innovation in organizations is examined with a specific focus on the Service-Dominant Logic. Lastly, the literature focuses on the importance to develop high market knowledge competencies.

2.2.1. Definition of innovation

Many scholars that tried to capture it and establish unique innovation typologies (Garcia & Calantone, 2002; Linton, 2009; Oke, 2007) have studied the concept of innovation. Nevertheless, innovation emerges in sociocultural and historical contexts that evolve where multiple and new definitions indicate a continuous evolution of such a concept (Fagerberg & Verspagen, 2009; Godin, 2015; Gupta et al., 2003). Still, what Porter 1990 already stated is that: "innovation doesn't merely result in a tangible product; it results in a new way of doing things that are commercialized" (Porter 1990). This highlights two aspects: innovation happens, and services and innovation must meet the market or otherwise is a pure exercise of creativity (Porter, 1990; Fetrati, 2018).

As of today, the different perspectives and definitions of innovation meet in a common ground sharing the overall idea that innovation is the outcome of a collective co-creation effort from a network of actors, and is no more the result of an individual effort (Chesbrough, 2006; Kindström, Kowalkowski, & Sandberg, 2013; Rusanen, Halinen-Kaila, & Jaakkola, 2014). This later perspective matches the Service-Dominant Logic perspective of innovation.

Two scholars, Vargo and Lush, introduced the concept of Service-Dominant Logic in 2004; it advances a new view of economic activity. Indeed, zooming out of the output-centric perspective the service-dominant logic proposes the service as the basis of all exchange of value, defined as the application of specialized resources for the benefit of other actors (Vargo & Lusch, 2004). Therefore, the concept of products and services combine into one where there is no distinction between the two (Vargo & Lusch, 2011).

The definition that is adopted in the thesis is taken from S-D logic innovation and states: "Innovation is a novel and better way for actors to co-create value through resource integration" (Lusch & Nambisan, 2015; Vargo, Wieland, & Akaka, 2015).

In order to better illustrate the definition, some of the terms should be clarified: better, actors, co-create.

- The first one, "better", refers to the capacity of supporting the company's goals; which are surviving and creating profit (Ching & Fauvel, 2013). It can be rephrased as the capacity to create new competitive advantages either in terms of improving performance (efficiency), or by solving a problem and adding value (efficacy) (Gloet & Terziovski, 2004).
- Actors involved in innovation are seen using the S-D logic where they are not limited producers. Instead, the term Actors comprehend the entire supply chain (consumers as well) (Bogers, Afuah, & Bastian, 2010; von Hippel, 2005); both are providers and beneficiaries of the service.

- The concept of co-creation refers to the ability of different actors to exchange and combine various resources in new ways (Perks, Gruber, & Edvardsson, 2012; Trott & Hartmann, 2009). This will be further analyzed in the following chapters.

The concept of innovation has been studied and conceptualized by many scholars and newer definitions of it have been published. However, the increasing attention of the last decade to innovation adopting S-D Logic (Sawhney et al., 2004; Heiskanen et al., 2007; Zomerdijk and Voss, 2011; Perks et al., 2012) supports the choice of the thesis to follow Lusch definition of innovation previously mentioned.

Innovation is an umbrella term that describes many forms of innovations (Edwards-Schachter, 2016). Scholars distinguished innovation in opposing typologies (Damanpour and Daniel Wischnevsky, 2006; Damanpour, 2010; Gopalakrishnan and Bierly, 2001; Gopalakrishnan and Damanpour, 1997; Prajogo and Sohal, 2003):

- product/service vs process;
- radical vs incremental;
- technical vs administrative.

One further perspective of analysis of innovation is through the componential view of Business Models. A Business Model Innovation (BMI) is a change, even a single one, of any of the components of a Business Model (Futterer et al., 2020; Spieth & Schneider, 2016). Indeed, any type of innovation is a BMI.

In the following chapters, some typologies of innovation are reviewed to provide a lens of analysis of the cases of innovation; the main distinction adopted in the literature review is the one between Radical and Incremental innovation.

2.2.2. Radical Innovation vs Incremental Innovation

Several scholars made the effort to define the concept of innovation and its main typologies of it (Garcia & Calantone, 2002; Linton, 2009; Oke, 2007). Yet, innovation is an umbrella term that comprehends a large cluster of types of innovation: technological, social, cultural, institutional, inclusive, eco, lean, public, and more (Edwards-Schachter, 2016). Furthermore, innovation is a concept in continuous evolution together with the socio-cultural ecosystem where it occurs (Fagerberg & Verspagen, 2009). For this reason, a defined classification of innovation types has not emerged and it is not shared in the literature. However, there are classifications of innovations that are most used and are universal (Dahlin & Behrens, 2005). One of these classifications is the Radical and Incremental one. The difference between the two types of innovation is at its best described by Norman and Verganti with the hill-climbing model (Figure 1) (Norman & Verganti, 2014). According to them, incremental innovation can be defined as “improvements within a given frame or solutions” which refers to climbing the hill until reaching the maximum, while radical innovation is “a process of changing frame”, which refers to changing the hill (Norman & Verganti, 2014). Following the hill-climbing model, incremental innovation is a finishing process that can be carried until to reach the top of the hill; on the other hand, radical innovation carries more uncertainty but offers the opportunity to reach a new, highest maximum. The height of the hill represents the product or service quality while the abscissa stands for the design parameters.

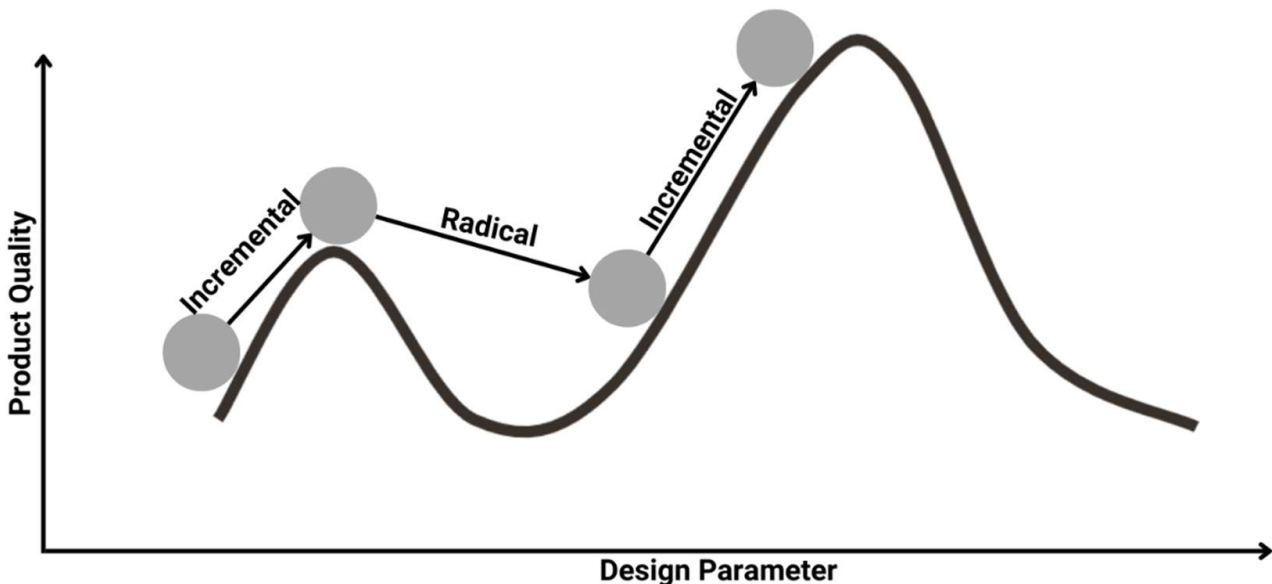


Figure 1 Verganti and Norman's Hill Climbing Model

Dahlin and Behrens elaborate on the distinction between radical and incremental innovation, proposing three criteria to identify the typology of innovation. Those are (Dahlin & Behrens, 2005):

- **Criterion 1:** The invention must be novel: It needs to be dissimilar from prior inventions;
- **Criterion 2:** The invention must be unique: It needs to be dissimilar from current inventions;
- **Criterion 3:** The invention must be adopted: It needs to influence the content of future inventions.

Innovation in order to occur, as previously mentioned, must meet the market; for such reason, the first and second criteria define the level of creativity while the third criteria measure the success. The first two criteria can occur at any time while the third depends on the success or failure of the innovation. These latter criteria are surprisingly rarely met (Sandberg, 2011). Furthermore, innovation to reach full success in the market is not purely the result of radical innovation from scratch but is the result of incremental innovation that improves its performance, lowers the cost, and increases the desirability (Norman & Verganti, 2014).

Bottom line is that both the two forms of innovation are necessary; as stated by Verganti and Norman: "Without radical innovation, incremental innovation reaches a limit. Without incremental innovation, the potential enabled by radical change is not captured." (Norman & Verganti, 2014).

The authors could also name this innovation "Design-Driven Innovation" (Verganti, 2009) as the word design (from the Latin, de-signature) is etymologically related to "making sense of things" (Heskett, 1985; Krippendorff, 1989). Design, by definition, includes bringing meaning (Krippendorff, 1989).

Innovation of meaning is a term that entered the literature in the last decade and it is a possible alternative to the more classical technological innovation process (Vargo, Wieland, & Akaka, 2015). However, the two forms of innovation are not opposite and they can coexist (Norman & Verganti, 2014). Looking at one more classification of typologies of innovation proposed by Norman and Verganti that comprehends both radical and incremental innovation, the Technology and Meaning Driven Ones (Norman & Verganti, 2014) is crucial. According to the two scholars, the evolution of innovations in the market can be analyzed by adopting a matrix-like framework based on two dimensions of technology and meaning divided into Radical and Incremental. Figure 2 is the framework proposed by the two dimensions and results in four types of innovation. (Norman & Verganti, 2014).

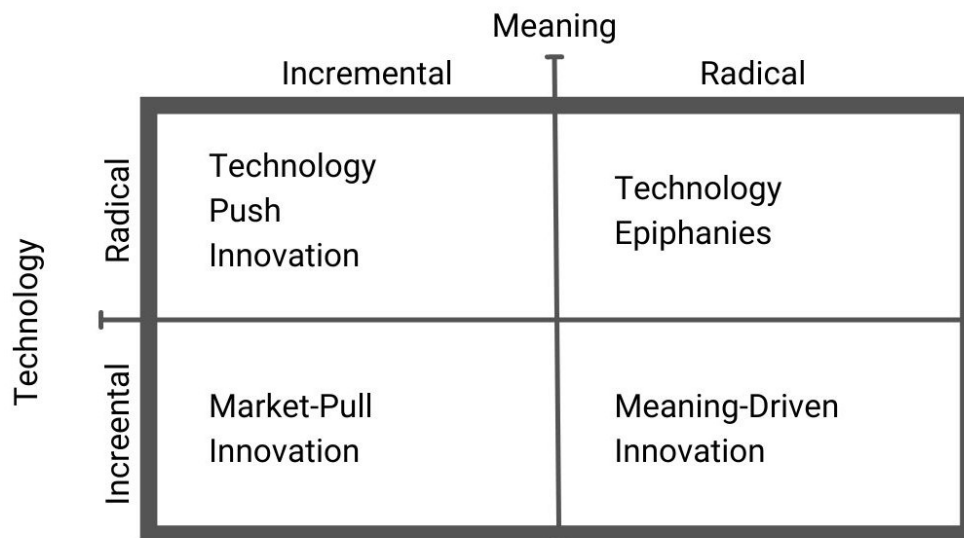


Figure 2 Technology and Meaning Innovation Matrix

Elaborating the model:

- **Technology-push innovation** comes from radical changes in technology without any change in the meaning of products;
- **Meaning-driven innovation** starts from the comprehension of subtle and unspoken dynamics in socio-cultural models and results in radically new meanings and languages;
- **Technology epiphanies** bring a radical change in meaning, enabled by the emergence of new technologies or the use of existing technologies in totally new contexts.
- **Market-pull innovation** starts from an analysis of user needs and then develops products to satisfy them. It is a type of incremental innovation and it follows a human-centered design approach, thus trying to improve the service delivered to the user (Donald; 1986).

Verganti and Öberg 2012 propose another classification introducing a three axes framework of analysis of innovation as in Figure 3 (Verganti & Öberg; 2012). This model is partially inspired by Abell's model for business definition (Abell, 1980). The three axes try to put an emphasis on the "why" by illustrating the meaning searched by the user.

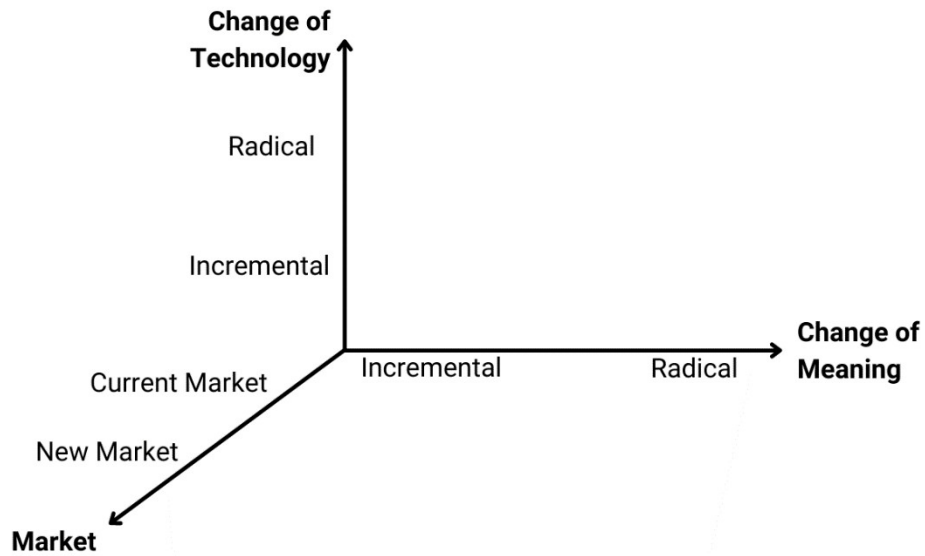


Figure 3 Verganti and Öberg's framework

Michel, Brown, and Gallan (2008), using S-D logic present an expanded and strategic approach to discontinuous innovations within the field of innovation studies. An expanded perspective on service innovation in the digital age based on S-D logic and that takes into account service ecosystems, service platforms, and value co-creation is then provided by Lusch and Nambisan (2015). These concepts are illustrated in the following chapters.

2.2.3. Service Dominant Logic

Vargo and Lusch during the mid-1990 and until 2004 worked on the paper: "Evolving to a New Dominant Logic for Marketing" which today is the base of the Service-Dominant Logic. The paper can be articulated in two main ideas (Vargo & Lusch; 2004):

Economic activity, in general, is best described by a service-for-service exchange;

Value is co-created rather than being created by one actor and subsequently delivered to another actor.

The first principle can be rephrased as the source of value in any activity is not the good exchanged, that works only as a transmission, but rather the exchange of the service desired with the application of abilities or specialized knowledge that people do for themselves and others (Vargo & Lusch; 2015). On the other hand, the second highlights that in S-D logic value is not created but rather co-created as the integration and application of different resources within dynamic networks of actors, which underscores the social or relational nature of context (Chandler and Vargo, 2011; Edvardsson et al., 2014).

The service-dominant logic developed by Vargo and Lusch in 2004 proposes a systematic view of innovation. According to it, to create value the goal of the companies is to develop and maintain a relationship with the final customers (Vargo & Lush, 2004; Vargo & Lush, 2008). More specifically, SD logic outlines service as the process of value co-creation relative to the application of competencies and capabilities for the benefit of another (Vargo and Lusch, 2016). In a service-dominant logic, the previous firm-centric and output-oriented perspective of exchange shifted towards one centered on service itself, where value is co-created.

Despite "Evolving to a New Dominant Logic for Marketing" is a milestone in literature, the concept of Service-Dominant logic is not entirely new; one example of it is Bastiat (1801-1850) which had declared that "services are exchanged for services" over 150 years before. Likewise, Prahalad and Ramaswamy (2000) had been advocating value co-creation for several years before Vargo and Lusch (2004) and before them, Ramirez (1999) had traced its recognition back at least 300 years. S-D logic was, from its beginning, more about the identification and extension of apparent coalescence in the ongoing development of marketing than a radically new idea (Akaka, Vargo, & Lusch, 2012). The real significance of Vargo and Lusch's paper was the articulation of an initial, integrated framework for thinking about value co-creation in terms of service-for-service exchange. Thereby, the emphasis on economic activity shifted from the intangible-unit-of-output meaning to the adoption of a process meaning (Vargo, Lusch, & Morgan, 2006; Vargo & Morgan, 2005).

The perspective on innovation today extends beyond the previous conventional and limited view, toward a multi-participated view; where actors participate in the co-creation of value. Co-creation indeed is necessary for innovation.

The framework developed by Lusch and Vargo has continued to evolve; first, by including other primary activities involved in value co-creation (resource integration), by an explication of the idiosyncratic and experiential nature of value; and second by integrating the role of institutions in value co-creation. The developments have been captured in five core foundational premises, which have more recently (Vargo & Lusch, 2016) been identified as five axioms:

1. Service is the fundamental basis of exchange;
2. Value is co-created by multiple actors, always including the beneficiary;
3. All social and economic actors are resource integrators;
4. Value is always uniquely and phenomenologically determined by the beneficiary;
5. Value cocreation is coordinated through actor-generated institutions and institutional arrangements.

In 2015, Vargo and Lusch elaborates on S-D logic to introduce the service ecosystems perspective, where they investigate the relevance of value co-creation of the social aspects of context and institutions (Vargo & Lush 2015). More specifically, service ecosystems are defined as “complex, self-adjusting system of resource integrating actors connected by shared institutional arrangements and mutual value creation” (Vargo & Lusch, 2016). As a result, the evolution of service ecosystems is often determined not linearly by the ways in which they self-organize and adapt through the interactions of the various players and the processes and practices they engage in, leading to either their growth or disintegration (Vargo et al., 2008). Innovation is the process of modification and change of the institutional arrangement that regulates the way in which value is co-created among actors in service ecosystems (Vargo et al., 2015).

By default, service ecosystems are nested and loosely connected, which means that a system that can be labeled as entire at one level, may be contained at another (Ostrom, 2005; Vargo & Lusch, 2016). As a result, service ecosystems as having three stages of the competition that frame resource integration, service exchange, and value co-creation. They are (Chandler & Vargo, 2011):

- micro (e.g., households, organizations);
- meso (e.g., industries and brand communities);
- macro (e.g., nations, cultures, and global markets)

Innovation in service ecosystems arises from megatrends, i.e. from “large social, economic, political, and technological changes” (Naisbitt, 1982), which reside in the macro environments of specific service ecosystems (Anderson et al., 2013). These megatrends may challenge the mode of action of the existing institutional arrangements and hence the ways that resource integration and value co-creation are performed within the specific service ecosystems. These megatrends are often detected by looking at the competitors and the customers (Market Knowledge Competence) (Li and Calantone, 1998).

2.2.4. Market Knowledge Competence

Market knowledge competence (MKC) refers to the processes that generate and integrate market knowledge, thereby creating market knowledge stock. It describes a firm's capacity to get a deeper understanding of both its clients and competitors (Li & Calantone, 1998). Market knowledge competence is an important strategic asset (Augusto & Coelho, 2009).

Traditionally, it focuses on two components (Li & Calantone, 1998):

- Customer knowledge competence: the ability to generate and then use knowledge about customers' current and potential needs (including new products);
- Competitor knowledge competence: the capacity to produce and then put to use knowledge of competitors' products and strategies.

The authors chose to devote a chapter of the literature review to MKC, being it a central topic in the marketing/innovation literature, and its effects on innovation and performance have been well investigated (Ozkaya et al, 2015). Indeed, MKC has drawn interest because of its positive effects on innovation and/or other performance effects (Atuahene-Gima & Wei, 2011; Johnson, Piccolotto, & Filippini, 2009; Li & Calantone, 1998).

Claudy, Peterson, and Pagell elaborated on the importance of MKC by asserting that companies with high MKC are most likely to report success in the introduction of product innovation. Indeed, higher MKC supports companies' internal tradeoffs between different objectives (Claudy, Peterson, Pagell, 2016).

MKC is hence an important competence to support the innovation process. According to the S-D theory previously illustrated, this process is about setting new rules of integrating and mobilizing resources and actors within service ecosystems. Innovation is about changing the institutions within service ecosystems (Normann, 2001).

Institutions are studied more in detail in the next chapters of the literature review; they can be depicted as "the rules of the game" in service ecosystems as they guide the current processes of value co-creation. They have a central role in innovation (North, 1990).

In the next chapter of the literature review, the concept of institution is studied.

2.3. Institutions

The literature review has the goal to analyze the concept of institutions. In order to do so, some of the main definitions of institutions and some key terms such as institutions, conventions, and rules are presented. The following chapter refers to the analysis of the concept of institutional change and the strong correlation between institutions, megatrends and innovation.

The term institution is widely present in the social sciences papers, reflecting the expansion of institutional economics and the usage of the concept in a variety of other disciplines, including philosophy, sociology, politics, and geography (Hodgson; 2006). The phrase has a lengthy history in the social sciences, extending at least as far back as Giambattista Vico's 1725 book *Scienza Nuova*. However, only in the last century scholars tried to formalize these concepts. In 1936, institutions were defined by Hughes as "some sort of establishment of relative permanence of a distinctly social sort". The definition has changed along the years, becoming in 1992: "Institutions are systems of well-established and widely followed social rules that structure social interactions" (Knight; 1992).

However, not every social structure is an institution (Hodgson, 2006). Those sets of relations that may not be codified in discourse (demographic structures) that act without an operational set of rules are not institutions (Archer, 1995).

The dissertation has the goal to investigate the role of institutions with respect to innovation. Therefore, it is important to propose a formal definition of institutions and to specify the difference with conventions and rules. Institutions and institutional arrangement are interchanged through the paper as they refer to the same concept.

Institutions or institutional arrangements can be pictured as humanly devised rules, meanings, norms that constrain human action (Scott, 2001), and as functionally interrelated elements of socially prescribed patterns of correlated behavior (Foster, 1981).

Aligned to this, conventions can be considered particular instances of an institution (Sugden, 1986; Searle, 1995). For example, traffic rules are present in all nations, but whether they are to drive on the left or right is a matter of (arbitrary) convention. Therefore, for example, under the institutional system of traffic rules in the United Kingdom, the specific convention is to drive on the left (Thevenot, 1986; Orlean, 1994; Favereau and Lazega, 2002).

The term rule refers to a socially transmitted and customary normative injunction or immanently normative propensity that in certain circumstances X, Y should be done (Ostrom, 1986; Crawford & Ostrom, 1995). A prohibition rule would cover a vast number of activities Y, all of which are prohibited

from the banned outcomes. Other rules may impose the performance of a limited set of actions in Y. Without much thought, a rule can be considered, acknowledged, or followed (Hodgson, 2006).

Institutions are systems of rules that therefore constrain and, concurrently, enable behaviors: regulation is not always the antithesis of freedom; it can be its ally (Letaifa et al. 2016). The existence of rules implies constraints. However, such a constraint can open up possibilities: it may enable choices and actions that otherwise would not exist. By imposing a set of rules and consistency on human actions, institution enables organized cognition, anticipation, and action (Foster, 1981). Indeed, institutions are the most significant social structures: they are what defines social life; much of human interaction and activity is guided by explicit or implicit norms (Hodgson, 2006).

Institutions play a fundamental role on sociocultural and historical contexts at large. Innovations emerge and shape such contexts (Fagerberg and Verspagen, 2009; Godin, 2015; Gupta et al., 2003) and consequently institutions influence and are influenced by the innovation process (Dacin et al., 2002; Di Maggio et al., 1991; Milgrom et al., 1990; Williamson, 2000).

Indeed, innovation intrinsically relies on changing institutions in order to set new rules of integrating and mobilizing resources and actors within service ecosystems (Normann, 2001). Innovation is the process of changing the institutions within a service ecosystems (Koskela-Huotari et al, 2016).

The theory studying the evolution of institutions within service ecosystems is called institutional change and part of the main pillars of it are illustrated in the next chapter.

2.3.1. Institutional Change

The interest in the topic of institution is due to the fact that society at large can be seen as a set of institutional systems, where each institutional system is composed by a set of institutions and each institution is defined by a set of prescribed patterns and correlated behaviors (Bush, 1987).

Any firm or individual operates in a complex societal system that can be reduced to prescribed patterns and behaviors (Koskela-Huotari et al, 2016). Institutional theory is the discipline that studies individual and organizational behaviors (Hodgson, 2006).

One of the main research field of institutional theory is institutional change, which means to look at how institutions changed over time (Bush, 1987).

Institutions have the ability to shape the nature of change at many levels and context, as well as institutions themselves change in character, behavior, and potency over time and place (Dacin et al., 2002; Di Maggio et al., 1991; Milgrom et al., 1990; Williamson, 2000).

Many academics describe institutional change as a natural evolutionary process (Kingston and Caballero, 2009). According to evolutionary institutional change theories, institutional change is caused by human actions such as learning, imitation, and so on (Coccia, 2018). Thus, new rules or behaviors are not imposed by a central mechanism (e.g., legislation), but rather through a decentralized selection process, in which successful institutions adapt and grow in society while failing institutions perish (Coccia, 2018).

According to Ostrom causes of institutional change can be both:

- exogenous (e.g., technological change);
- endogenous causes (e.g., the depletion of a resource over time).

Ostrom describes institutional change as a process where each individual evaluates their projected costs and advantages from an institutional change, and if the "minimum coalition" required to accomplish change agrees, the change can be implemented (Ostrom, 2005).

This process is aligned with Veblen's model that back in 1899, argues that "the evolution of social structure has been a process of natural selection of institutions". In other words, this is a process of "natural selection of the fittest habits of thought", both through the "selection of individuals endowed with the fittest temperament", and through the "adaptation of individual temperament and habits to the changing environment through the formation of new institutions" (Veblen, 1899).

Not by chance, the thesis begins by citing Darwin's theory. Institutional change can be seen as a process of natural evolution of service ecosystems and the ability of players to adapt to such context depends on their ability to innovate.

Scott (2004, 1995) proposes three so-called institutional pillars, each encompassing different institutional elements:

1. The regulative pillar comprises the formal norms, such as laws, conventions, and some formal regulations, which either enable or limits on the players' behavior. Regulating institutions must issue sanctions in order to guarantee that actors' actions adhere to predetermined norms. This dynamic leads to regulatory institutions acting primarily in their own self-interest.
2. The normative pillar contains norms and values that enables actors to recognize the social advantages and limitations. As a result, the actors adhere to these standards because they feel an internal commitment to them and recognize that there are sufficient social expectations for them to do so (Parsons, 1971). These principles and norms serve as precise benchmarks against which current structures or behavior can be compared and evaluated.
3. The third pillar, known as cognition, consists of sets of beliefs that are influenced by the actors' perceptions and individual implementations of their surroundings. The cognitive pillar includes "shared concepts that determine the essence of social reality and establish the frames through which meaning is made," according to Scott (1995). Thus, this pillar covers the assumptions that people make about the beliefs, and ideas that people possess (Kleinaltenkamp et al., 2018).

Each of these institutional components elements makes use of symbolic systems, relational systems, and artefacts as mechanisms to be effective (Scott, 1995). Symbolic systems are made by models, classifications, representations, and logics (Thornton et al., 2012). Relational Systems are made by patterned expectation linked to the social roles of players. Artefacts are made by materials that can help with task performance and humans produce them using their own ingenuity (Kleinaltenkamp et al., 2018). The relationship between the pillars and the carriers is illustrated in Figure 4.

Carriers	Pillars		
	Regulative	Normative	Cognitive
Symbolic Systems	Rules, Laws	Value, Expectations, Standards	Categories, Typifications schema
Relational Systems	Governance Systems, Power Systems	Regimes, Authority Systems	Structural isomorphism identities
Routines	Protocols, standard operating systems	Jobs, Roles, obedience to duty	Scripts
Artifacts	Objects complying with mandated specifications	Objects Meeting conventions, standards	Objects possessing symbolic value

Figure 4 Relationship between the pillars and the carriers

2.3.2. Megatrends and Proto-institutions

Analyzing institutional change, the “paradox of embedded agency” comes out. Therefore, the question is “how actors whose behavior is governed by institutions are able to change those same institutions?” (Seo and Creed, 2002). The literature answers this question in two ways according to the causes of institutional changes:

- endogenous: the change is imposed by setting a new set of rules (Ostrom, 2005);
- exogenous: the change follows megatrends (Kleinaltenkamp et al., 2018).

Megatrends are “complex combinations of economic, political, cultural, philosophic, and technological factors, broader in scope, longer in duration and more impactful in scope than normal trends and extensive in their impact (Mittelstaedt et al, 2014). They are embedded in the contexts of their time as a product of the residue of previous megatrends (Mittelstaedt et al, 2014).

Megatrends are developments that are external to a certain service ecosystem are drivers for their actors’ intentions to change the institutional settings (Barley, 1986; Fligstein, 2001; Fox-Wolfgramm et al, 1998; Greenwood et al., 2002; Oliver, 1991, 1992). Megatrends influence a wide range of activities and affect societies and economies worldwide and permanently over a long period of time. They have the capacity to challenge existing institutional arrangements and thus change service ecosystems (Koskela-Huotari et al, 2016). Such megatrends are part of the macro-environment (Anderson et al., 2013) and hence act across different levels of the service ecosystems like a firm (micro), an industry (meso) or a state (macro) (Chandler & Vargo, 2011). Megatrends challenge the mode of action of the existing institutional arrangements and hence the ways in which resource integration and value co-creation is performed within the specific service ecosystems (Kleinaltenkamp et al., 2018). As a result, megatrends tend to initiate innovation in service ecosystems.

Innovation is a continuous socio-technical process in which (imperfect) solutions stabilize at least temporarily (Vargo et al, 2016). Referencing the institutional theory once more, during such processes the so-called proto-institutions are developed. They are made up of “[new] practices, technologies, and rules that are narrowly diffused and only weakly entrenched, but that have the potential to become institutionalized” (Kleinaltenkamp et al., 2018).

Proto-institutions are new practices or institutional elements that come up as a result of cooperative negotiating processes and competitive alignment (Zietsma and McKnight, 2009; Helfen and Sydow, 2013). Consequently, they are “institutions in the making” because they can only fully evolve into institutions if the social processes taking place in the service ecosystem encourage their growth, diffusion, and adoption by the actors within the same service ecosystem (Lawrence et al., 2002, p. 282). The actors have to take

into account that the proto-institutions themselves are still in a development process and may change as a result of a wide range of negotiation and adaptation processes (Kleinaltenkamp et al., 2018).

Tensions between megatrends and institutional arrangements of existing service ecosystems trigger the emergence of proto-institutions that may change the institutional arrangements of existing service ecosystems. The emergence of such proto-institutions generates follow-up effects within the original institutional arrangement both within and across institutional pillars. The association between megatrend, institutions, and innovation is described in Figure 5.

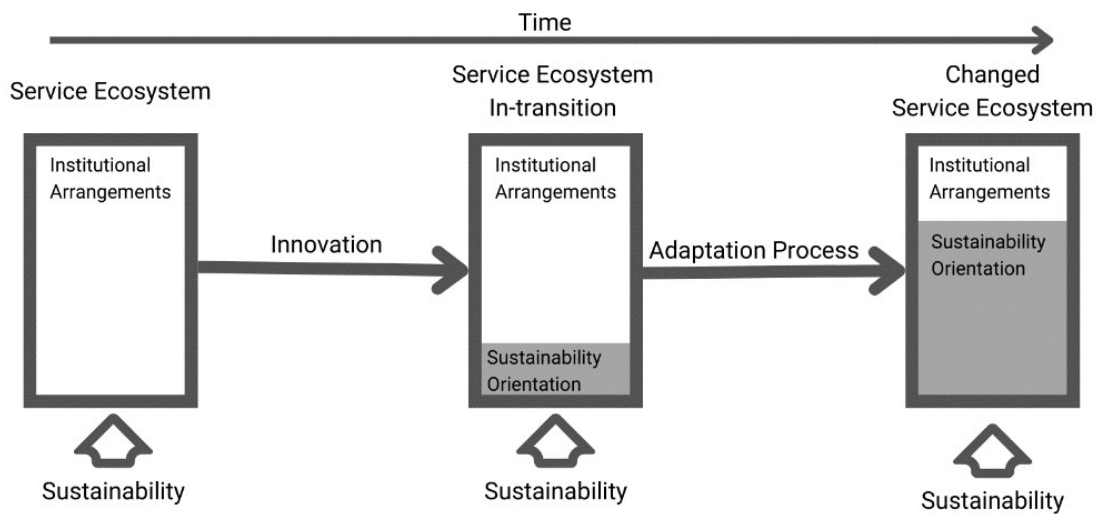


Figure 5 Adaptation of Kleinaltenkamp framework

This model is an adaptation of Kleinaltenkamp, Corsaro and Sebastiani’s one that illustrates the creation of proto-institution and the following integration of new institutional arrangements aligned with the megatrend in service ecosystems (Kleinaltenkamp et al., 2018).

Service ecosystems are conceptualized as having micro (e.g., households, organizations), meso (e.g., industries and brand communities) and macro (e.g., nations, cultures, and global markets) levels of institutional arrangements (Chandler & Vargo, 2011). This means that a micro-level institutional arrangement simultaneously reflects both a meso-level and a macro-level institutional context (Akaka, Vargo, & Lusch, 2013). The same model is applicable to many structure levels (micro-meso-macro). However, for the same megatrend the institutional arrangement, innovation, proto-institution and times will vary according to the level and the cases (Kleinaltenkamp et al., 2018). Meso-structures are made by the elements of the micro-structure, and macro-structures are made by meso elements (Dopfer et al., 2004). Therefore, innovation in the macro domain - in the form of what can be called a macro institutional change - embodies through the micro and meso institutional-changes (Dopfer et al., 2004).

The theory of institutional change suggests that megatrends play a fundamental role in supporting the creation of new institutions (Kleinaltenkamp et al, 2018). However, Huotari et al also describe that previous institutional arrangements play a fundamental role in supporting the shift toward new institutional arrangements (Kleinaltenkamp et al, 2018).

In the following chapter the process of dropping old (breaking), keeping previous (maintaining) and forming new (making) institution is analyzed.

2.3.3. Breaking, making, maintaining institutions

The prior paragraph quickly overlooks at the necessity to form new and drop previous institutionalized rules in order to allow changes to occur. However, Huotari, Edvardsson, Jonas, Sörhammar and Witell in their paper "Innovation in service ecosystems - Breaking, making, and maintaining institutionalized rules of resource integration" affirm that former institutions must drop, new institution must be created but it is also important of preserving former institutions co-creation for changes to institutionalize or for them to become an integral part of the institutional structure coordinating value (Koskela-Huotari et al, 2010).

The study by Huotari, Edvardsson, Jonas, Sörhammar, and Witell adopts a service-dominant logic on innovation perspective, consistent with the one previously stated. Innovation is, hence, seen as a process of reorganizing value configurations (Normann & Ramirez, 1993) or service ecosystems (Lusch & Vargo, 2014) that goes beyond the creation of new outputs exchanged in dyadic relationships (Michel, Brown, & Gallan, 2008) to incorporate more activities focused on alter value co-creation practices among multiple actors (Vargo et al., 2015). The use of institutions and institutional arrangements is made to provide "the rules of the game" that govern how resources are integrated (North, 1990). Innovation is the process of shaping the institutional arrangements of service ecosystems (Huotari et al, 2016).

Innovation is not a linear or a conflict-free process (Norman & Verganti, 2014). New resource integration rules are internalized over time through several tweaks and alterations until a common template is adopted and shared since institutional action involves numerous actors who are motivated by different institutional arrangements (Zietsma & McKnight, 2009). Therefore, innovation should be viewed as a process of ongoing continuous discussions, testing, competition, and learning that involves breaking, creating, and maintaining institutionalized rules for resource integration (Koskela-Huotari et al, 2011).

To alter the institutionalized rules for resource integration, some of the existing ones must be challenged and broken. It is significant to remember that even actions intended to change current institutional arrangements are subject to a set of regulations (Lawrence et al., 2009). In essence, when performing institutional labor, actors are simultaneously driven by the institutions and are unable to "go outside" the institutional structure of the service ecosystem. This is the so-called "paradox of embedded agency" (Seo and Creed, 2002). Hence, it is difficult to breach or create "new" rules without preserving the old institutional arrangements (Huotari et al, 2016).

To comprehend the nature of institutional structure in service ecosystems, it is necessary to keep in mind that, just as service ecosystems are made up of numerous, nested levels of contexts (micro, meso, macro), institutional structure is similarly made up of various, nested, and intertwined layers (Akaka, Vargo, &

Lusch, 2013). This indicates that a micro level institutional arrangement, such as a company culture, reflects both a meso level institutional environment (industry norms) and a macro level institutional context (national culture and values) at the same time.

As a result, innovation in service ecosystems is the process of changing value co-creation activities at various context levels through the reconfiguration of institutionalized rules (Vargo et al., 2015). This process develops as various actors' effort to break, make and maintain the institutional arrangements of resource integration (Jarzabkowski, Matthiesen & Van de Ven, 2009; Lawrence, Suddaby & Leca, 2009). In order to support the process of changing value, co-creation activities within companies should take three possible actions (Koskela-Huotari et al, 201):

- **Including new actors in service ecosystems:** Innovation is a common effort in which new and existing actors come together to create new resource constellations in order to produce new and successful forms of collaboration (Michel et al., 2008). One of the most effective strategy to do this is by including new actors (Huotari et al, 2016).

Even when innovating, as the "paradox of embedded agency" presents, actors in service ecosystems cannot overcome the institutional arrangements that led their behavior (cf. Lawrence et al., 2009). However, new actors are driven by resource integration norms that are different from those that have been institutionalized, thus creating tensions, but they can also enhance new institutions (Koskela-Huotari et al, 2010).

- **Redefining roles of actors in service ecosystems:** Institutional reconfigurations can be declared as redefined roles for both existing and new actors (Normann, 2001).
- **Reframing resources in service ecosystems:** Institutional frameworks in service ecosystems act as frames for understanding the value of potential resources (Koskela-Huotari and Vargo, 2016). Coexisting institutional arrangements that are somewhat at odds with one another might give players different frameworks for understanding the world and make it easier for new institutional arrangements to emerge.

Huotari, Edvardsson, Jonas, Sörhammar and Witell's work is indeed a paper that inspired the thesis to further elaborate the relationship between innovation and institutional change as the field has yet to be explored in detail. Some of the opportunities of future research suggested in the paper are related to a deeper elaboration of the micro-institutional change within service ecosystems and how deeply must the changes be embedded in the service ecosystem (Huotari et al, 2016).

A further analysis of the Research Gap researched in the thesis is exposed in the next chapter.

2.4. Research Gap

After the initial analysis of innovation and institutions theory, the authors identify a gap that this dissertation is trying to fill by studying the interplay of the two fields.

Market knowledge competence is a central concept in the marketing/innovation literature and its effects on innovation and performances have been studied in details (e.g., Hurley & Hult, 1998; Kumar, Jones, Venkatesan, & Leone, 2011; Wei, Frankwick, & Nguyen, 2012). Focusing on customer and competitor orientations, which are the components of market knowledge competencies that study the firm's external environment (Narver & Slater, 1990).

The study of the external environment is as old as humankind is, and the importance of the anticipation of the future has been underlined in different fields. Regarding economics and management, literature (e.g. Okun, 1981) has underlined the relevance of forecasts the economic trends already from the 80s, but this importance is equally true also for technological, sociological, cultural and political trends (Mittelstaedt et al 2014). Megatrends are "complex combinations of economic, political, cultural, philosophic, and technological factors" (Naisbitt, 1982), are broader in scope, longer in duration and more impactful in scope than normal trends (Kleinaltenkamp et al., 2018).

Even though merely focusing on customers and competitors may not guarantee innovations, it is central to know what the customers want and what competitors are doing. Market Knowledge Competence has attracted attention due to its positive effects on product innovation and/or other performance consequences (Atuahene-Gima & Wei, 2011; Johnson, Piccolotto, & Filippini, 2009; Li & Calantone, 1998).

While Market Knowledge Competence reflect customers' and competitors' behavior, these are shaped and guided by institutions. Institutions change is enhanced by megatrends (Kleinaltenkamp et al., 2018). The two fields of institutional change and innovation are connected (Koskela-Huotari et al, 2016).

However, to the best of the authors' knowledge, the linkage between innovation and institutional change has received some degree of attention, but a framework of analysis on how to strategic leveraging both the innovation and institutional change process has not receive a wide recognition among literature. The authors are then aiming at filling this gap by studying through the lenses of the theory a framework to classify different approaches followed by companies in devilmment of innovation to and institutional change integration aligned with the global megatrend.

3. Methodology

3.1. Introduction

The authors' objective is to develop a conceptual framework that outlines the relationship between institutional change and innovation. To analyze the interplay between the two concepts in service ecosystems, the authors conducted a qualitative study. Qualitative studies provide an in-depth understanding, with the additional possibility of being flexible. They thus allow for a phenomenological contextual approach to the micro institutional changes of service ecosystems aligned with real-life megatrend/macro institution within which people and managers actually operate.

In particular, the authors conducted a multiple case-based research study, performed following the replication logic (Eisenhardt, 1989; Yin, 2014) and thus facilitating the study of inter-personal as well as inter-organizational relationships at different levels of analysis (Robson, 2002).

In replication logic, cases that confirm emergent relationships enhance confidence in the validity of the relationships. Cases that disconfirm the relationships often can provide an opportunity to refine and extend the theory (Eisenhardt, 1989). According to Eisenhardt, this method is suitable to build theory or to find cross-observational findings and can lead to insights beyond and between individual cases (Eisenhardt, 1989).

Therefore, in order to support the research, a Case Study analysis was conducted. Since it consists in a qualitative research methodology, the findings do not proceed from statistical methods or other means of qualification (Strauss, 1990). A case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1994). In this research, the typology of case study is exploratory, as the case was selected to investigate companies innovation process and the institutions change.

3.2. Sustainability as empirical context

In order to understand the interplay of innovation and institutional changes, the cases were selected in the realms of the same megatrend: sustainability.

In the dissertation, the empirical context of sustainability was selected in order to look on the integration of different companies in developing innovation aligned with the megatrend and thus the resulting new institutions. More specifically, the selection of the cases is crucial in order to analyze the environmental sphere of sustainability and sustainable development.

The cases selected are therefore examples of eco-innovation, which represents innovation with the objective to improve the environmental performances of the companies (Fussler & James, 1996).

The next chapters are going to illustrate the reasoning behind the selection of sustainability as an empirical context.

Over the last two decades, the anthropogenic origin and significant repercussions of global climate change have been both observed and well-studied (IPCC, 2007; Stocker et al., 2013; King et al., 2015). These global dynamics produce fundamental local challenges that result in an unprecedented challenge for governments, organizations, and individuals. In order to survive and thrive it is required a shift toward more sustainable development paths (Folke et al., 2020). Indeed, the challenge to reach a desirable future requires new processes and capacities that must emerge to feed a fundamentally altered relationship between humans and the environment (Bennett et al., 2016; Pereira et al., 2018). Humanity is facing the challenge to move toward a more sustainable lifestyle (Mont et al., 2014).

Sustainability is a megatrend (Lubin, Esty, 2010), within our society comprising sustainability-oriented megatrends such as Agricultural Innovation, Circular Economy, or Clean Tech (Gaudig, Ebersberger; Kuckertz). Many studies today shows that sustainability is the fundamental challenge to guarantee a future. Consequentially, many companies across different industries are following a sustainability orientation, which requires environmental concerns and practices integrated into enterprises' strategic, tactical, and operational actions in a proactive strategic manner (Roxas and Coetzer, 2012).

In the chapter about institutions, the relationship between megatrend and institutional arrangements was illustrated. In the context of sustainability, the overall proactive attitude of companies towards the integration of environmental interests and practices into their strategic, sustainability orientation (Roxas and Coetzer, 2012) is the result of the megatrend of sustainability (Lubin & Esty, 2010).

However, not all the companies have yet switched toward a sustainability orientation approach (Gaudig et al., 2021). Adopting the model proposed by Kleinaltenkamp the macro service-ecosystem of the word

results in transition and across most industries sustainable orientation is adopted as the proto-institution that guides the overall institutional arrangement toward the megatrend.

The concepts of institutions, institutional change, sustainability and sustainable development are intrinsically intertwined. Already in 1987, the World Commission for Sustainable Development defines sustainable development as: "...a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change ... enhance both current and future potential to meet human needs and aspirations" (UN, 1987). In this definition, institutions have already an explicit role, former institutional arrangements influences decision making are tossed towards profit almost at the exclusion of other values such as sustainability (Pfahl, 2005). On the other hand, new sustainability orientation institutional arrangements enhance behaviors, habits and social structure to evolve toward a more sustainable development (Claudy, Peerson, Pagell, 2016).

Sustainability Orientation is made of numerous, nested levels (micro, meso, macro), just like any institutional structures in service ecosystems. The global shift toward sustainability orientation is an example of a macro-level proto-institution, that embodies new institutions at micro-level (ex. adopting a recyclable policy in a firm), and at meso-level (ex. abolition of single use plastic in an industry).

In the dissertation, sustainability orientation is adopted as an empirical case of institutional change. Specifically the adoption of a Sustainability Orientation is studied among different industries and the consequential institutional arrangements changes.

In order to conduct a multiple case-based research study, the thesis studies fourteen cases of innovation developed aligned with sustainability orientation. More specifically the cases selected are all example of eco-innovation, defined as "the process of developing new products, processes or services which provide customer and business value but significantly decrease environmental impacts" (Fussler & James ,1996).

In the dissertation, all the fourteen cases were selected to be examples of companies adopting a B2C business model in order to avoid complications. In the next chapters, the authors will illustrate the frameworks adopted in the thesis to study the companies ability to generate and capture value.

3.3. Case Selection, Data Gathering, Data Analysis

The authors' objective is to develop a conceptual framework that outlines the relationship between institutional change and innovation. To achieve this aim, the authors adopted the empirical case of Sustainability. In the thesis, fourteen example of sustainability-oriented innovation from four industries were chosen.

The fourteen cases of sustainability-oriented innovation referred to fourteen companies. The innovation proposed brought changes in the specific institutional arrangement of each service ecosystem. Adopting the SD-logic illustrated in the literature the innovation cases are investigated looking at the eco-innovations co-creation of a network of actors working communally (Chesbrough, 2006; Kindström, Kowalkowski & Sandberg, 2013; Rusanen, Halinen-Kaila & Jaakkola, 2014). To make the best cases analysis the selection of the cases should be heterogeneous (Yin, 1994). Therefore, after a quick analysis of companies' sustainability orientation, the fourteen cases were selected considering companies that adopt different levels of Sustainability Orientations.

In order to answer the research question by exploring an under-researched topic, the investigation was mainly focused on qualitative data. Indeed, the aim of the thesis was to explore the concept more in depth. Thus, both primary and secondary sources were taken into account. In particular, among the primary ones, journal articles, academic books and papers and reviews were used. Then, also secondary level of sources represented by synthesis and interpretations of other primary sources were taken in consideration. Data, cases and information were collected through heterogeneous sources.

After having investigated around literature, the authors evaluated a series of cases with the aim of conducting deeper research on those industries to carry out insights for the research question.

The cases were selected looking among different industries, in order to have a wider perspective and to test the presence patterns despite different products offered. However, since the cases should also be comparable, in the thesis only example of B2C business model were selected. Indeed, in this way the authors were able to guarantee coherency throughout the analysis with respect to the business structure.

All the cases are example eco-innovation applied to new products or processes to significantly reduce environmental impact (Fussler & James, 1996).

The authors decide to select a heterogeneous and discrete sample of fourteen cases. At the early stage of the research, it was composed of twenty cases, which were then ignored as they did not represent any benefit and no differential contribution to the other ones. Indeed, being the whole case study analysis a qualitative investigation, it was not a matter of numbers, but it was more about reasoning and concrete deductions.

The selected cases belong to four different industries: fashion, furniture, beauty and consumer electronics. The listed industries were selected as – regarding the empirical context of the research that is sustainability – they represented crucial areas.

In details, the four industries and the relative cases are:

- Fashion: Manteco, Luis Vuitton, Patagonia, H&M, Save the Duck, Moncler, The north Face, Zara;
- Consumer Electronics (Mobile Phone) : Fairphone, Apple;
- Beauty: Lush, Garnier;
- Furniture: Ikea, Carl Hansen & Søn.

Fashion, and the apparel industry as a whole, represents the second largest polluter in the world after oil. More in particular, production methods are very consuming, and resources are not always earth-friendly. Among other data, producing one T-shirt requires about 2700 liters of water, which represents almost the same amount an average person drinks over the course of 900 days.

Consumer electronics, included smartphones, has a carbon footprint of about 3.7% of global greenhouse emissions. It means it is around 14 ounces of carbon dioxide per person each year. The important issue is that their impact is not only related to the creation phase, but also to the usage.

In addition to this, e-waste could be dangerous during the summer months because toxic chemicals are released into the air when electronic waste gets heated.

The furniture industry uses several types of synthetic materials that can double the negative impact on the environment by creating pollution during both the first phase of manufacturing and at the end of the furniture's life. Among the others, plastics and synthetics are mostly made from fossil fuels, such as oil.

The beauty industry has some main environmental issues regarding the use of chemical products and solid waste. Indeed, toxic chemicals such as dyes, bleaches and solvents can make their way into the soil and can destroy the natural habitat. Then, packaging represents a huge problem as is estimated that approximately 70% of the beauty industry's waste comes from that.

The information on the selected cases were mainly collected through online sources such as blogs, interviews and websites. More in details, stakeholder letters, articles, reviews, sustainability and financial reports were taken into account.

The selected companies represent a heterogeneous sample for different reasons. Indeed, they are characterized by different timings, geographical areas, sizes and business models. However, the authors considered the importance of also keeping them coherent and comparable.

As a matter of fact, some of the initially selected companies were deleted along the process. The reasons behind such choices have been the impossibility to compare them with others, or the too-close alignment they presented with respect to other companies, which made the comparison not differential.

To standardize the analysis of each case and in order to make each of them comparable to the others, the thesis divides each of the investigations in 4 sections as follows:

- Brief overview of the firm: detailed description of the company business, presented together with an overview of milestones, size and performances. Here, the authors define the level of Market Knowledge Competences (MKC) of the firm, which was previously introduced as a concept. This issue results as the starting point for the following sections. Indeed, MKC shows the firm's ability to develop a better understanding of both its customers and competitors (Li and Calantone, 1998), and its introduction makes the authors able to divide the companies on three approach toward it:
 - Low MKC: companies have both low customers' and competitors' knowledge. They show little to no ability in understanding and address users' needs and trends.
 - Medium MKC: companies have medium customers' and competitors' knowledge. They are interested in competitors' strategies and programs.
 - High MKC: companies have high customers' and competitors' knowledge. They have a great ability in addressing market change and in understanding competitors' strategies.

By introducing MKC, the authors can also highlight different approaches towards the market that will be of great importance in the final considerations.

- Sustainability Orientation: description of the link companies show toward sustainability. In this section, an overview of the evolution of companies' sustainability orientation is offered, opening the analysis to the environmental and social impact of the firm. In order to have a complete overview of each single firm's sustainability orientation, the authors use the Advanced Business Model Canvas that will be illustrated in the next pages. To do so, four blocks are defined and evaluated. They are described as follows:
 - Business Infrastructure: key partners, key activities and key resources of the company.
 - Customer Value: overall vision on the company, considering its business model and its whole products portfolio.
 - Customer Infrastructure: how customers relationships, channels and marketing are managed.
 - Management Infrastructure: goal, vision, mission of the company, which can be either short or long-term oriented.

By evaluating whether each of the blocks is above or below the average of the analysis, the cases are defined having a High, Medium-High, Medium-Low or Low Sustainability Orientation;

- Innovation Case Analysis: description of the main characteristics of the innovation introduced by the company. This description enables the authors to analyze how companies do innovate and why all the selected cases are examples of eco-innovation. In the section, the cases are framed in Norman & Verganti model regarding Technology and Meaning innovation. In addition to this, the authors reflected on whether the innovation in analysis is a case of proto-institution creation or adoption, following Kleinaltenkamp, Corsaro and Sebastiani's model previously introduced along the thesis.
- Micro-institution: last section dedicated to the analysis of the single innovations, which bring institution changes within the firm. More in details, they are micro-institutional change within service ecosystems (Koskela-Huotari et al, 2010). In order to coherently proceed in alignment with the Sustainability Orientation, the changes introduced by the innovation are illustrated in the same four clusters of the Advanced BMC.

In addition, each case is evaluated in terms of breaking, making and maintaining, as introduced by Huotari, Edvardsson, Jonas, Sörhammar and Witell's.

The goal of the thesis is to study how do company respond adopting innovation that is aligned with institutional change, and how the innovation is managed. The theoretical background justifies the relationship between megatrend, institution and innovation.

It is of paramount importance to clarify that the authors decide to run the whole analysis of the case studies at a micro-level, i.e. at the level of the firm. This approach is taken for the sake of coherency and to be able to analyse each case study in the same way.

More in details, this means institutional changes are not considered at a multi-company level nor at an industry one. Each single case is considered on its own in order to gain specific insights only related to the company per se.

In order to illustrate the response of companies to the institutional change, the thesis adopts a framework of analysis able to study Sustainability Orientation (SO) in opposition with Market Knowledge Competence (MKC), defined MKC-SO. The importance of market knowledge competence as a strategical asset was illustrated in the literature review, while the concept of sustainability orientation and the framework will be better illustrated in the following chapter. This framework is introduced to position the companies according to their ability to embrace the institutional change, and in order to elaborate a first classification of the case study.

Then, being the thesis about innovation and institutional change, the authors decide to concentrate on companies' types of innovation. This last information is derived from Verganti and Norman's framework of innovation, which has been previously largely described. In this way, the 14 cases are placed in the four

quadrants of Technology Push Innovation, Market Pull Innovation, Technology Epiphanies, Meaning Driven Innovation.

Through these two frameworks, the results are analyzed on the light of the results achieved.

After the end of the analysis of the cases, the thesis focuses on the discussion of the results by creating and proposing a framework able to link institutional change and innovation. More in details, for the following steps the authors decide to simplify the dimensions in order to differentiate between two main types of innovation (Radical and Incremental) and four levels of Institutional Changes Integration (High, Medium-High, Medium-Low, Low).

Together with the discussion of the findings and the relationships, the authors also illustrate the managerial implication of a company in developing innovation aligned with the institutional change.

3.4. Business Model Canvas

The thesis studies the cases through an adaptation of the Business Model Canvas (BMC). The BMC is a powerful tool that was designed to map, discuss and design each company business model (Maurya, 2010). In particular, through the BMC the authors try to highlight the institutional arrangement that guide each firm. The BMC consists of nine basic components of a business model.

The reason behind the success of the BMC result from its simplicity (Spanz, 2012); however in order to simplify even more the model the authors decided to adopt King’s adaptation of the BMC: the Advanced Business Model Canvas, Figure 6 (King, 2010).

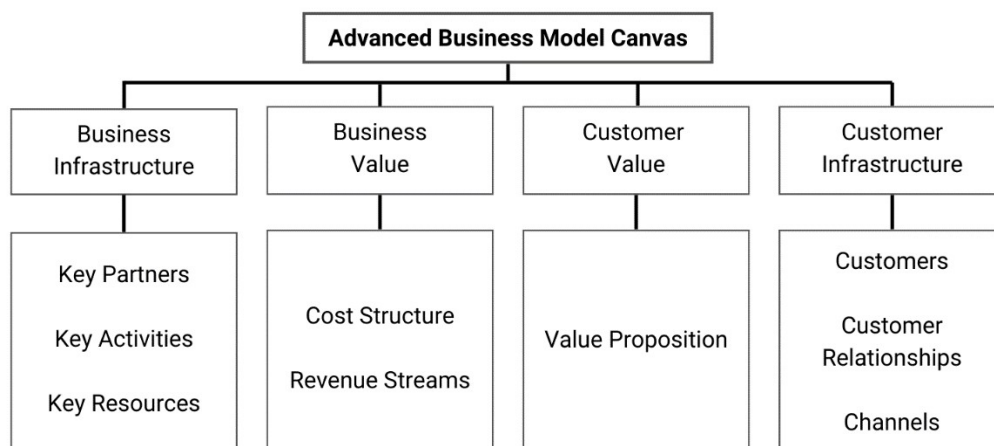


Figure 6 Advanced Business Model Canvas

In order to avoid puzzling analysis of the business cases the authors decide to collect the analysis in the four main voices of:

1. Business Infrastructure
2. Business Value
3. Customer Value
4. Customer Infrastructure

In the case analysis carried out in the thesis, the authors decided to select all cases of companies that produce and sell products and their model is a B2C market. In this particular context, the Business Value block, composed by cost structure and revenue stream, is very similar across all the cases. So much so that for the scope of this thesis it is not very useful to highlight the institutional arrangement that comprehend the revenue streams and cost structure of companies.

Therefore, the tool will be adapted so to have only three blocks:

1. Business Infrastructure

2. Customer Value
3. Customer Infrastructure

The power of the Advanced Business Model Canvas is in its simplicity. However, since it bases on the same blocks of the BMC, it faces the same four major limitations (Spanz, 2012):

1. No broad analyze of competition;
2. No formulating of business goals/vision;
3. No taking in account of KPIs and performance measurement;
4. Applicable for innovation, not so much for transforming of existing models.

These limitations are a hurdle to the complete analysis of the cases. Specifically the second and third point are valuable to highlight the administrative and operative choices taken by companies' manager (Spanz, 2012). With the aim of having a complete overview of the company and overcome BMC limitations the authors decided to add a fourth block of analysis related to the business goal/ vision and to the performance management of the firm. This block is called Management infrastructure, so that the four voices are going like the one illustrated in Figure 7:

1. Business Infrastructure;
2. Customer Value;
3. Customer Infrastructure;
4. Management Infrastructure.

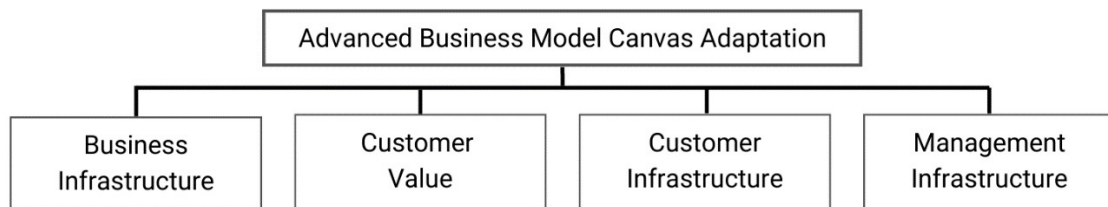


Figure 7 Advanced BMC adaptation

King's Advance BMC is adopt as a framework to have an overview of the companies, to define the sustainability orientation of each firm, and a source of four cluster where to illustrated the micro-institutions originated by the innovation process within the analyzed companies. Being the thesis about the institutional change the authors decided to classify SO integration of the companies according to four clusters: high, medium-high, medium-low, low. The distinction between the four clusters is made according to the five voices of the Advance BMC adaptation. For each block the performance are evaluated either above the average of below the average of the case study analysis.

As a result, the company Sustainability Orientation will be the outcome of five estimation and the four cluster will adopt the following classification:

- High: No block below average;
- Medium high: from 1 to 2 blocks below average;
- Medium low: from 2 to 3 blocks below average;
- Low: all blocks below average.

The Advance Business Model Canvas adaptation together with the theory introduced in the literature review is going to be the lens of analysis of the business cases.

4. Multiple case study analysis

4.1. Introduction

The following analysis is crucial in order to collect the right material for the discussion that follows.

At first, the empirical context of the analysis is introduced. Thus, the authors concentrate on the topic of sustainability by generally describing the term and by briefly summing up the history of such concept.

Before entering the concrete case study analysis, the authors also provide an overview on eco-innovation, representing the typology of innovation they want to investigate on.

More in details, the analysis is organized as previously announced in the methodology. Therefore, the analysis is made up of four points (Overview of the company, Sustainability Orientation, Innovation, Micro-institution).

As previously exposed, the cases the authors are presenting are fourteen innovations carried out by fourteen B2C companies belonging to four different industries.

4.2. Sustainability

4.2.1. Introduction

Through the next paragraphs, the authors explore in depth the empirical context selected: sustainability.

Therefore, the concept of sustainability is introduced, and a brief overview of the history of such term is presented. Then, the authors analyse the modern approach of companies toward sustainability, defined as sustainability orientation (SO).

Being sustainability defined as a critical driver of organizational and technological innovation, it represents a long-term competitive advantage. Therefore, the authors present eco-innovation, which is selected as the context of analysis to concentrate on along the research.

4.2.2. Definition of Sustainability

The word sustainability derives from the Latin language "*sustinere*" that means sustain, defend, favor and promote. Even if the term "sustainability" together with "sustainable" appeared for the first time in the English Dictionary in the second half of the 20th century, the equivalents in French, German and Dutch have been used for centuries.

Indeed, the term of sustainability was first used in 1713 by the German Hans Carl von Carlowitz. In its origin sustainable forest management means, that no more wood is harvested than regrows (Wiersum, K.F., 1995).

The first and most recognized definition of sustainability - and more in particular of sustainable development – was given in 1987 in the Brundtland Report. It was defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (UN, 1987).

Then, a multi-dimensional point of view entered the definition.

Indeed, in the Agenda for Development introduced by the United Nations in 1997, there is a shift in the interpretation of the term. From that moment, the term focuses on three dimensions that must be in harmony: social, economic and environmental.

In detail, the UN define sustainable development as it follows:

"Development is a multidimensional undertaking to achieve a higher quality of life for all people. Economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development" (UN, 1997).

Still nowadays, the modern principle of sustainability conceived includes three main perspectives: the economic, ecological and social ones (Helming., Pérez-Soba, Tabbush, 2008).

4.2.3. History of Sustainability

Although the introduction of the idea of sustainability as the world currently knows it was during the 80s, an interest towards it has raised even before.

In 1970 it was officially defined an Earth Day, to celebrate on the 22nd of April.

In 1972, there was the first environment-related congress, which was the Conference on the Human Environment, held in Stockholm. It was attended by 113 states and representatives from different organizations at international levels. For the first time, the whole conference was exclusively devoted to environmental issues. (Paul, 2008)

During this event, a group of 27 experts identified a first link between environment and development by stating that: "although in individual instances there were conflicts between environmental and economic priorities, they were intrinsically two sides of the same coin" (Vogler, 2007). Thus, for the first time an early idea of sustainable development was hypothesized.

Another takeaway of the conference was the creation of the United Nations Environmental Program, known as UNEP, officially born in 1973. It has the mission "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations".

However, not so efficient. Some critics also defined the conference as more concentrated on identifying trade-offs between environment and development rather than promoting harmonious linkages between them. (Prizzia, 2007, p.21)

In the same year 1973, the international oil crisis raised people awareness on the concreteness of the link between the environment and socio-economic factors.

In 1983, the World Commission on Environment and Development – also later known as the Brundtland Commission thanks to its Chair, Gro Harlem Brundtland – was created by UN General Assembly. Then, after four years, it released its final report titled Our Common Future. For the first time, the term "sustainable development" is defined. Thus, the most significant and famous outcome of the report is the definition of this expression as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (UN, 1987)

By analyzing more in details, the sentence, two are the main concepts that come out:

- The concept of "needs" which in particular identifies the essential needs of the world's poor that will have overriding priority

- The concept of limitations imposed by the as-is situation regarding technology and social organization on the environment's ability to meet both present and future needs.

Right after this period, the concept of sustainable development acquired momentum also through rising public concern over new and alarming phenomena of environmental change in the developed countries (Vogler, 2007).

Then, another big step regarding sustainable development happened during the summer of 1992, when the UN Conference on the Environment and Development – also known as Earth Summit - was held in Rio de Janeiro. The conference included 108 heads of state, 10000 representatives from 172 countries and 1400 non-governmental organizations, and it was an international event on an unprecedented scale (Sarokin, ...). In this occasion, emerges the idea that a real sustainable development regards not only the environment, but also economic justice and social equality. Thus, a real sustainability needs to be at the same time environmental, economic and social.

The key outputs were the Rio Declaration, the Agenda 21, and the Commission on Sustainable Development.

In particular, Agenda 21 represented a collection of agreed healthy practices and advices for achieving sustainable development in any area on earth. The main issue was the idea that human societies couldn't persevere on the same path they were on before: a huge shift was needed. The major considerations of the Agenda belong to the themes of quality of life, efficient use of natural resources, protection of the global commons and sustainable economic growth. In order to implement Agenda 21, countries agreed on the importance of preparing a national sustainable development strategy. Thus, countries and regions responded in different ways with their own goals and plans, such as U.S. with the President's Council on Sustainable Development (1996) or UE with the Sustainable Development Strategy (Sarokin,...).

In 1997, John Elkington – an English business writer – coined the phrase Triple Bottom Line, otherwise noted as TBL or 3BL (Elkington J., 2014). It represents an accounting framework conceiving the social, environmental (ecological) and financial part. In details, it is used to evaluate organizations' performances on a wider perspective to create greater business value (Slaper, Timothy F. and Hall, Tanya J., 2011). The triple bottom line considers social equity, economic and environmental factors. Thus, the sentence "people, planet, and profit" coined by Enkilgton in 1994 could sum the concept and the goal of sustainability very clearly.

- People, the social equity bottom line: it pertains to beneficial working practices toward labor and the place in which the organization runs its business.
- Planet, the environmental bottom line: it refers to sustainable environmental practices that aim at minimizing the business' impact on the planet.

- Profit, the economic bottom line: it deals with the economic value created by the organization. it differs from the traditional meaning of profit, as it considers the value after deducting the costs of inputs.

Going along in the timeline, in 1997 the Kyoto conference on climate change was held. In this occasion, developed countries meet and agreed on specific targets that could be helpful in order to cut their emissions of greenhouse gases. These targets resulted in a general framework, known as the Kyoto Protocol. More in details, industrialized countries had to provide an overall reduction of emissions of gases to 5.2% below 1990 levels for the period 2008-2012. 84 countries signed the Protocol, but many others, such as the USA, refused to do that. However, the Kyoto Protocol only defined the basic features for compliance, without practically explaining the all-important rules of how to operate. As a clear consequence, the protocol was not enough, and the reduction of CO₂ emissions was not reached.

With the support of the UNEP (United Nations Environment Programme), United States-based non-profits Ceres (formerly the Coalition for Environmentally Responsible Economies) together formed the Global Reporting Initiative (GRI) in 1997. GRI is an international independent standards organization that acts as a help for businesses in order to communicate their impacts regarding climate change or human rights. GRI's sustainability reporting framework is the most widely used by organizations and governments as it clearly identifies and gather information to make them comparable (Pedersen, Esben, 2015).

Switzerland represented the first country to add the term sustainability to its constitution. Indeed, since January 1, 2000 the term entered in Article 2: "The Swiss Confederation supports the common welfare, the sustainable development, the internal cohesion and the cultural diversity of the country" (Grober, 2010).

In 2000, UN world leaders met at the Millennium Summit held in New York and agreed on the Millennium Development Goals (MDG), which represented an equilibrium between the economic, social and environmental pillars of sustainable development. Most of these goals presented the year 2015 as a timeframe, and year 1990 was considered a benchmark.

Through the Millennium Development Goals it was demonstrated that "the livelihoods and well-being of the world's poor are now conceptualized in terms of access to opportunity and absence of insecurity and vulnerability" (Adger et. al., 2007, p. 194).

The goals are eight. In details, they are:

1. To eradicate extreme poverty and hunger
2. To achieve universal primary education
3. To promote gender equality and empower women
4. To reduce child mortality
5. To improve maternal health

6. To combat HIV/AIDS, malaria, and other diseases
7. To ensure environmental sustainability
8. To develop a global partnership for development

Each goal presented specific targets and dates.

In 2002, the World Summit on Sustainable Development (WSSD) was held in Johannesburg. It acted as a milestone in the creation of partnership between the United Nations, governments and NGOs to then gather resources for addressing global environment and poverty challenges.

It confirmed once again the Millennium Goals and set a number of additional ones. It represented a progress in moving the mere concept of sustainable development towards an explorative understanding of the relationship between economic development and environmental quality (Asefa, 2005). The targets did not only regard the environment per se but the entire sustainable development concept, as previously defined. Indeed, among the objectives the following were defined:

- By 2010: achieve a significant reduction in the rate of loss of biological diversity
- By 2015: halve the proportion of people who have no access to basic sanitation by 2015
- By 2020: use and produce chemicals while not creating adverse effects on human health and the environment (Nelson, 2007)

The Johannesburg Conference confirmed a trend, which appeared since the 1992 Conference, of the increasing importance of the socioeconomic pillars of sustainable development. (--)

2015 represented a key year, characterized by three fundamental moments: Paris Agreement, Pope Francis' Laudato Sii encyclic and the Agenda 2030 publishment.

Through the Paris Agreement, nations agreed on setting up a global framework to avoid dangerous climate change by limiting global warming under 1.5°C. Thus, by letting it overcome this threshold, the consequences could be irreversible.

Laudato Sii encyclic highlighted the clear link between Nature protection and the creation of a social order that is right and balanced.

Then, the UN published the Agenda 2030, and with it it defined 17 Sustainable Development Goals, which translate the notion of sustainability into target areas for substantial achievements by 2030. These objectives were agreed and defined by more than 190 countries in the general assembly of the United Nations. They act as guidelines both at a national and international level for a new societal model based on the 5 Ps idea: People, Planet, Prosperity, Peace, Partnership.

In addition, the UN set 169 concrete and specific goals embedded in the 17 overall categories, thus making them more tangible and measurable.

Even if Sustainability and Sustainable Development represent “a buzz word and imported word” (Reidel, 2010), they have become the topic for contemporary assessment of progress, responsibility, freedom and culture (Bachmann, 2010). In addition, the concept has entered politics and economy, thus ensuring that the 21st century will be “the Sustainability Century” (Elkington, 1997).

4.2.4. Sustainability Orientation

In the previous chapters, the evolution of the concept of sustainability was illustrated. In the following chapter the modern approach of companies to sustainability is analyzed. Often Companies are forced to make trade-offs between sustainability goals and profitability objectives (Wu and Pagell, 2011). To balance social and ecological objectives with economic goals such as profitability and market share a fundamental capability is to have strong market knowledge competence (MKC), previously analyzed in the literature review. Solving these trade-offs requires intensified learning and (market) knowledge on the organization's part to identify and develop solutions that satisfy economic, environmental, and social objectives (Claudy, Garcia, and O'Driscoll, 2014).

Those companies that successfully solve the tradeoff can leverage on their sustainability orientation (SO) integration as "a strategic resource that leads to competitive advantage for the organization and, ultimately, to superior performance" (Hult, 2011). The positive relationship between SO and competitive performance was first theoretically formalized in the NRBV of the company (Hart, 1995), which suggests that integrating environmental constraints into organizational processes will incentivize companies to acquire new resources and capabilities that are valuable, rare, and inimitable, and which constitute the basis for long-term competitive advantage (Barney, 1991; Prahalad and Hamel, 1990).

Companies' sustainability orientation (SO) is widely understood as a strategic resource, can lead to competitive advantage and superior (financial) performance. (Claudy, Peterson, Pagell, 2016). SO can be defined: "as the overall proactive strategic stance of companies towards the integration of environmental concerns and practices into their strategic, tactical and operational activities" (Roxas and Coetzer, 2012).

Conceptually, the literature distinguishes between two dimensions of SO—sustainability culture and sustainability practices.

1. SO manifests itself in the integration of sustainability values and ideas in the organizational culture (Banerjee, 2002).
2. The second dimension of SO relates to the integration of social and environmental concerns into internal operational plans, programs, and practices (e.g., Van Hemel and Cramer, 2002; Crittenden et al., 2011).

A company is considered as having a high level of SO "when it implements sustainable business activities" (Roxas and Coetzer, 2012). In sum, SO constitutes a firm-level strategic orientation, which "must be ingrained in the grand business philosophy of the company and form part of the firm's overall strategic configurations that guides business or operational plans, programs and activities" (Roxas and Coetzer, 2012).

4.2.5. Sustainability Oriented Innovation / Eco Innovation

Sustainability has been identified as a critical driver of organizational and technological innovation, and is a key factor in companies' pursuit of long-term competitive advantage (Nidumolu, Prahalad, and Rangaswami, 2009).

Porter and van der Linde (1995b) first provided anecdotal evidence that the costs of tighter environmental regulations are often outweighed by the benefits of environmental management at the company level.

The main explanation for this win-win logic is that environmental regulations force companies to innovate, which ultimately results in operational efficiencies, higher quality products, and greater value for customers. Environmental problems such as pollution or waste can be interpreted as inefficient, ineffective, and incomplete use of resources by companies. Thus, adopting an SO can result in operational efficiencies and cost savings, which in turn increase companies' competitiveness (Porter and van der Linde, 1995a).

Second, integrating social and environmental concerns into NPD can lead to competitive advantage through a first mover strategy in emergent "green" markets (Albertini, 2013). Consumers are becoming increasingly concerned about the environmental and social performance of products that they purchase (Prothero, McDonagh, and Dobscha, 2010).

In the context of NPD, Adams, Jeanrenaud, Bessant, Denyer, and Overy (2016) argue that "sustainability oriented innovation involves making intentional changes to an organization's philosophy and values as well as to its products, processes and practices to serve the specific purpose of creating and realizing social and environmental value in addition to economic returns." Organizational culture is comprised of the organization's norms, values, ideologies, and beliefs (e.g., Howard, 1998). Higher levels of SO are thus reflected by the degree to which sustainability is embedded as a strategic norm in the organization's culture (Adams et al., 2016; Linnenluecke and Griffiths, 2010).

Fussler and James (1996) first defined eco-innovation as "the process of developing new products, processes or services which provide customer and business value but significantly decrease environmental impacts" (Fussler & James, 1996). When enterprises move towards sustainability, cross-disciplinary technological challenges involving eco-innovation are the most critical and difficult issues. Eco-innovation is considered as an important pathway towards sustainable development in the business sector (Jang et al., 2015). Prior studies also showed that eco-innovation could be quantitatively measured and be used to explain a group's sustainability (Jo et al., 2015). Therefore, sustainability could be seen as a result of the implementation of multidisciplinary technologies involving eco-innovation. Several different eco-innovation dimensions were developed to determine eco-innovation indices. For example, European

Commission applied 16 indicators and grouped them into five dimensions: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency, and socio-economic outcomes. Jo et al. (2015) developed an eco-innovation index using four factors: capacity, supportive environment, activity, and performance. Carrillo-Hermosilla et al. (2010) analyzed eco-innovation by four dimensions: design, user, product service, and governance. The scope of eco-innovation is extensive, which could include policy side, supply side, and demand side (Horbach, 2008). However, the development and implementation of new technologies are the central driving force of eco-innovation.

However, innovation success increasingly depends on companies' ability to create economic as well as ecological and social value for customers and other stakeholders (Swan and Luchs, 2011). Companies' sustainability strategy may not be aligned with new product service or process development goals, these can be profitability, return on innovation investment, or market share (de Medeiros et al., 2014).

The results provide initial support for the proposition that SO has a positive influence on companies' innovation success, and that this influence is partially mediated via companies' MKC. However, it is important to note that these findings are limited by the cross-sectional nature of this study and that additional testing of the indirect relationship via longitudinal or experimental approaches would be desirable. The findings show that managers are more likely to achieve success when they also develop higher MKC (Figure 2). The findings indicate that companies' SO influences innovation success directly (i.e., efficiencies, differentiation advantage) and indirectly (i.e., market knowledge). Companies with high SO and MKC are thus most likely to report the highest innovation success.

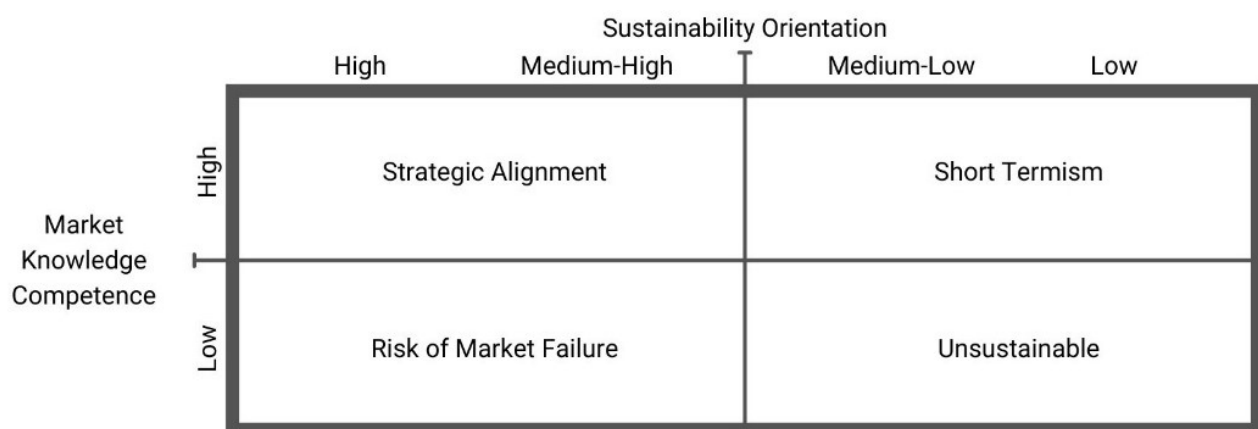


Figure 8 MKC-SO Framework

The model hereby placed shows that going toward a SO can influence positively the firm's success if mediated by consumers' and competitors' knowledge.

In particular, by adopting more or less sustainability objectives and by developing a higher or lower MKC, companies can face four different situations:

1) **Strategic Alignment** (high SO, high MKC):

Such companies are more effectively balancing sustainability objectives in alignment with the needs of customers and of the competitive dynamic environment. Therefore, they are likely to make the right trade-offs and they have the highest potential to generate efficiencies and sustainable differentiation advantages (Claudy et al., 2016).

2) **Short-termism** (Low SO, Low MKC):

These companies' sustainability objectives can potentially clash with market needs, as they are placing too much emphasis on market-based metrics without addressing strategically important sustainability concerns. Therefore, they risk overlooking or misunderstanding market expectations.

3) **Risk of Market Failure** (High SO, Low MKC):

Within companies showing these characteristics, market needs dominate sustainability objectives. These companies risk to fail in developing real solutions to strategic challenges. Indeed, their SO can lead them to great sustainable solutions, but their not-advanced market knowledge may prevent them from translating them into success.

4) **Unsustainable** (Low SO, Low MKC):

Companies showing low SO and low MKC place the least emphasis on both addressing sustainability challenges and on acquiring more market knowledge. Such companies tend to do business as usual. Thus, their approach is most likely unsustainable, and they have the highest risk of failure.

4.3. Cases

4.3.1. Fairphone

Overview of the company

"Fairphone: the phone that cares for people and the planet" (Fairphone, n.d.)

Fairphone is a social enterprise on a mission to show how products and supply chains may have a positive and fair social impact. "Fair" is the guiding philosophy for product development, supply chain partnership, and stakeholder engagement, driven by an understanding that being "less bad" is not the solution, keeping in mind that the concept of 'fairness' is an ongoing dialogue and not 100% achievable.

Fairphone is a Dutch electronics manufacturer mainly designing and producing smartphones with the goal of producing a lower environmental footprint and a higher social impact rather than the common in the industry. It was founded in 2013 in Amsterdam, but it started in 2010 as an awareness campaign about conflict minerals. (Fairphone, n.d.)

At the moment, it counts more than 70 employees from 20 countries.

Fairphone models are all modular smartphones. The purpose of this characteristic is to make the phone easily repairable while also customizable by the user. In this way, it can be longer-lasting.

What the company affirms is that, by increasing the lifespan of a phone by two years, CO₂ emissions can be reduced by 30%.

The first generation Fairphone was released to the market in December 2013, making a statement that a phone can be made while also addressing the issue of conflict minerals.

Fairphone is using the story of how the Fairphone was created to generate growing interest from customers, large mobile phone makers, and their shareholders in order to convert from a conflict minerals campaign to a social initiative. Rethinking the story and facts behind consumer electronics elevates sustainability from a side issue to a business imperative. Fairphone's ultimate goal is to promote systemic change by starting a conversation about how phones are made with customers, designers, phone manufacturers, and their respective shareholders.

By making modular phones, the company is opening up the supply chain and creating new relationships between people and their products. Fairphone aims at making a positive impact across the value chain in mining, designing, manufacturing and life-cycle.

More in details, the company's main objectives are:

- Minimizing the use of conflict minerals in its devices
- Maintaining fair labor conditions for its workforce and suppliers
- Allowing users to maintain their own devices

The company has released four phone models by now, from Fairphone 1 to Fairphone 4.

With the first model, spare parts were offered on the website as an industry-first.

Then, the Fairphone 2 was the real first modular device on the market. In addition, it was the first phone to receive a camera upgrade, and the first and only one running on a Snapdragon processor to receive updates from Android 5 all the way to Android 9.

Fairphone 3 contributed to achieve an even lower environmental footprint, by creating a more robust and longer-lasting modular design.

The recently launched Fairphone 4 has been produced together with a 5-years extended warranty in order to encourage customers to go for repair instead of replacement.

In 2019, Fairphone was the first company to offer a living wage program in the electronics industry. Indeed, it paid factory workers a bonus resulting in one to three months of extra salary per worker.

Fairphone values are transparency, creativity, collaboration, optimism and change.

Fairphones' business focuses on sustainability and reparability rather than on performance. Indeed, Fairphone models have been described as devices that "offer reasonable performance" but that are "never going to be a powerhouse when it comes to sheer performance".

To sum up, by having a focus on the MKC-SO Framework that was previously introduced, the company here described can be defined as having a medium-low Market Knowledge Competence.

More in details, Fairphone has not in any way showed any Competitors' Knowledge, as it has kept offering the same product without being influenced by any other player's strategy. Then, the company has a medium customers knowledge since there is no clear connection between the firm's ability to generate information regarding buyer needs and its production.

Sustainability Orientation

"If you think you're too small to make a difference, try going to bed with a mosquito in the room," Anita Roddick once said. In a word, Fairphone's purpose is to be the small mosquito that inspires a huge industry to take responsibility for its global impact by creating a viable market for ethical electronics (Fairphone, n.d.).

Fairphone was created in 2013 on the ground-breaking premise that the world might all be manufacturing products more fairly and with a greater positive influence.

Fairphone's mission is to prove that a fairer electronics industry is possible. *"With every phone we make, we're getting closer to a fairer and more sustainable electronics industry"*. (Fairphone, n.d.)

Fairphone aims at being the example that to manage a lucrative business that is also kind to people and the environment is possible and actually it is the best way to run a business (Fairphone, n.d.).

Fairphone revolution of producing and offering Modular Smartphones goes against the trend of making-using-disposing: smartphones become durable and easy to repair.

The smartphone industry is filled with unfair and unsustainable practices: material sourcing, workers' conditions and production methods are not always as transparent as they seem to be.

The company is thus providing responsible material sourcing. Indeed, materials that go into each phone have of course an impact both on people and on the planet. Fairphone represents the first and only smartphone company to be Fairtrade gold certified. More in details, the whole phone's journey is mapped so that, from start to finish, every step is traced: the more is known, the better it can be positively changed.

Moreover, the company is advocating for workers' welfare and, in addition to this, it is sharing all the results in the most transparent and freeway in order to set new standards for the entire industry (Fairphone, n.d.).

In order to make a positive impact and to disrupt the short-term way of thinking that the world can no longer afford, Fairphone is mainly concentrated on four points:

1. Creating products that last: The aim is designing for longevity, easy repair and modular upgrades. The goal is to make phone's hardware able to last as long as possible, and to keep in the meantime its software up to date.

"The longer you can keep your phone, the smaller its environmental footprint becomes."

Since 82% of the emissions of a smartphone comes directly from its production, the more often they are replaced, the higher the environment impact. In addition, electronic waste represents the fastest growing waste stream, that is supported by the consumer electronics industry that profits massively from these short product lifecycles.

Fairphone aims at moving towards a circular economy approach, by strongly encouraging the reuse and repair of phones and, thus, reducing electronic waste worldwide.

2. Reducing e-waste: Millions of mobile phones are discarded every year. Many of them are recycled under dangerous conditions: in Europe, only between 12-15% of them is estimated to be properly recycled.

In order to improve the consumer electronics industry, Fairphone is moving towards a circular economy that can reduce electronic waste worldwide.

The first take-back program to raise awareness and to encourage more people to recycle or make their phones available for reuse was launched in 2017. Then, in 2021 an improved version of the program was realized through the "Reuse and Recycle" initiative, in which a real market value was provided.

3. Choosing fairer materials: To make sure the company is creating positive change, Fairphone is incorporating fairer and responsibly mined materials in the phones it produces.

A truly circular economy is still a distant goal, so the company needs to depend on the mining sector for some materials. Extracting them can come with serious consequences ranging from child labor to pollution. However, if these practices are well managed they can represent a significant motor and they can be sustainable.

The company aims at exclusively using materials that deliver social and environmental benefits for its phones. Therefore, it is tracking the origin of these materials to find and create demand for more responsibly sourced elements.

4. Putting people first: The electronics industry is notorious for poor working conditions: extreme poverty, child labor and hazardous working conditions are just a few of them.

Fairphone approach is worker-driven. By collaborating with NGOs and labor rights experts, the company is developing innovative programs and ways in order to improve job satisfaction for workers in the industry.

The main initiatives Fairphone is focusing on are:

- Living wages: the company has introduced a bonus at the final assembly partner in order to move closer to living wages.
- Worker voice & satisfaction: workers are involved in the implementation of solutions and they are empowered to have an influence on their working conditions. Through surveys and feedback sessions, workers can effectively voice their concerns and participate in finding solutions.
- Impact beyond compliance: the company focuses on progress and performance and on the happiness and well-being of workers.

Fairphone is recognized as a benefit corporation, which means that it provides positive impact on society, workers, the community and the environment. Together with more than 1000 companies, Fairphone aims at using business to address social and environmental issues.

The platinum Ecovadis medal got in 2021, globally recognizes the company to be among the top 1% of the most sustainability-focused company in the mobile technology sector.

Fairphones are designed to achieve something very special: help customers to get closer to a vision of a fair economy.

Taking into account the so-called **MKC-SO framework**, Fairphone represents a company with a medium sustainability orientation. Indeed, even with a core commitment towards sustainability and even if also considering other sectors apart from the environmental one, the company risks of mistakenly addressing market needs. More in details, regarding the four sections of the BMC previously described:

Business Infrastructure:

- Materials are sustainable, fair and long-lasting. In this way, the phones end up being electronic waste neutral (Fairphone, n.d.).
- Fairphone products are socially responsible, as a living wage bonus is guaranteed for factory workers.

Customer Value:

- Fairphone makes a positive impact linked to 9 out of 17 Sustainable Development Goals.

Customer Infrastructure:

- In Fairphone business, customers are real and active actors. They are involved as real protagonists as they are given the power to concretely touch and feel the change.
- Clients do not need to be experts, as a clear set of guidelines is given them. Indeed, information and complete disclosure over products and their functionalities is provided to end-users.

Management Infrastructure:

- Through enabling people to take part to the change, the company wants to make people feel the change is really in their hands. In this way, the whole company is showing that in its vision planet and people are far more important than business.

The innovation: the Modular Smartphone

Fairphone has been able to create the world's first ethical and modular smartphone.

Considering the Technology and Meaning Driven Innovation matrix, Fairphone case can be considered a Technology Epiphany as it changed both the technology and both the meaning in a radical way.

This innovation can be described as a protoinstitution in the consumer electronics industry.

The company offers an alternative smartphone with do-it-yourself reparability, options for customization, software updates and long-term availability of single spare parts.

In addition to the usage of fair materials and to the provision of good working conditions to employees, the company introduces:

1. Long lasting design: the company is fighting against a fast-changing market in which the average phone is replaced every 18 months, far before their real technical obsolescence.

2. Reuse and recycling: by selling spare parts and offering repair tutorials, customers are helped to make their phone useful for as long as possible.
3. Product-as-a-Service: the company has developed innovative business models through a series of partnerships.

Among the four models that have been produced from 2013, Fairphone 3 represented a groundbreaking innovation towards the circular production of mobiles as it was considered completely repairable.

The company has been designing and producing innovative and long-lasting smartphones using conflict-free tungsten and providing total transparency along the whole supply chain. Therefore, customers know that the environmental footprint is minimal.

Fairphone has developed – and is still concentrating on enriching – a list of suppliers in order to gain a deeper understanding of the complex and opaque consumer electronics supply chain. By now, the first-tier and second-tier component assembly manufacturer and component suppliers are mapped. In this way, the whole supply chain ends up to be tracked, so that customers are sure that every piece and components they are dealing with is truly fair.

Fairphone is not only selling a product, but it is aiming at also exchanging knowledge with its customers by giving them a choice: modular smartphones empower customers to use their phones longer (Fairphone, n.d.).

Micro-institutional change

Business Infrastructure:

- By now, first tier and second tier component assembly manufacturer and component suppliers are mapped. In this way, the whole supply chain is tracked.

Customer Value:

- Fairphone has developed a whole business model on the idea of offering a product-as-a-service. More in details, the company offers a phone with a do-it-yourself repairability and empowers customers to use their phones longer.

Customer Infrastructure:

- Fairphone aims not only at selling a product but at also exchanging knowledge with its customers. The objective is to shift consumer electronics industry and to prove that it could be sustainable.

Management Infrastructure:

- Fairphone mission is to show that also the consumer electronics industry can be sustainable. Thus, the company has a long-term commitment that does not finish with the modular smartphone but is embedded in the whole business model.

With respect to the previously introduced Break, Make, Maintain perspective, the here described innovation was focused on breaking the entire old meaning and value proposition. Indeed, this innovation in particular represents a shift in the previous vision on telephones and smartphones.

In addition to this, Fairphone commits to make a new relationship with its customers in order to spread this new language and new meaning.

4.3.2. Apple

Overview of the company

Apple, formerly Apple Computer, Inc., is a multinational corporation founded in California in 1976.

The company makes consumer devices, computers, servers, and software, as well as serving as a digital media content distributor.

iPhone smartphone, iPad tablet computer, and Macintosh computer series are Apple's main product lines, representing the main parts of the revenues (Apple, n.d.).

The brand was founded by Steve Jobs, Steve Wozniak and Ronald Wayne on April 1, 1976 in Jobs' parents' home garage, in Cupertino, California.

Apple resulted to be immediately successful, and for more than three decades it reigned over the market by manufacturing and selling predominantly personal computers, including the Apple II, Macintosh and Power Mac lines. However, the company faced a hard period during the 1990s, collecting a low market share and low sales. For this reason, Jobs – who had exited the company in 1985 – returned in 1997 becoming the interim CEO. Thanks to him and to his instillation of a completely new corporate philosophy regarding easy-to-recognize products and simple design, Apple established itself as a leader.

The two co-founders first met in mid-1971, having 16 and 21 years old, respectively. The business partnership began from the moment in which Wozniak, who was a self-educated electronics engineer, realized his own telephone that enabled people to make long-distance calls at no cost. The invention was called "blue boxes", and the two of them managed to sell hundreds of those products for \$150 each.

By 1976, Wozniak was able to complete a computer, which would later become the Apple I. At first, Wozniak wanted to share the machine's schematics for free, but Jobs, who was definitely more business-driven, convinced him in selling bare printed circuit boards for computers.

The two of them also tried to offer the design to HP, Hewlett-Packard, but they were refused on five different occasions.

On April 1st, 1976, after having sold Jobs' Volkswagen Type 2 minibus for a few hundred dollars and Wozniak's HP-65 programmable calculator for \$500, Apple Computer Company was founded. Together with Jobs and Wozniak, Ronald Wayne participated in the business. He had worked at Atari as a chief draftsman, but he only stayed inside the company for two weeks, selling his 10% share on April 12, 1976.

The choice of the name Apple came by chance, as Jobs stated: "I was on one of my fruitarian diets [...] it sounded fun, spirited and not intimidating ... plus, it would get us ahead of Atari in the phone book."

Thanks to Jobs' entrepreneurial mindset and recklessness, the Apple I went on sale in July 1976. About 200 units of the computer were sold. Although being fairly simple, it was a masterpiece of design as for its structure far fewer parts than anything similar had been used.

Even if at first it was difficult for the two Steves to find funds to further expand their business, in 1977 they managed to find an angel investor. From here on, a series of new products were designed and sold.

In 1985, after Apple's failure in defeating IBM on the market, both Steve Jobs and Steve Wozniak left the company due to different visions and perceptions about the business Apple was running.

In 1996 the company was mere weeks for going bankrupt. It was decided to go for an acquisition in order to get another company's operating system. Thus, Apple purchased Steve Jobs' new company, NeXT. In this way, Jobs came officially back to Apple's management in 1997.

In the years between 1997 and 2001 the iMac, iBook, Apple Store and the whole line of Apple stores came out. Then, between 2001 and 2007 the first iPods was produced and sold. Together with it, the iTunes store was launched.

The company represented the leader in the consumer electronics and media sales industries, and starting from 2007 the original name, Apple Computer, ended to be only Apple.

In 2007, the first version of the iPhone became available in selected countries. Three years later, in 2010, the iPad – presenting twice the screen size of an iPhone without the phone abilities – was announced.

Apple resulted to be immediately successful, and for more then three decades it reigned over the market by manufacturing and selling predominantly personal computers, including the Apple II, Macintosh and Power Mac lines. However, the company faced a hard period during the 1990s, collecting a low market share and low sales. For this reason, Jobs – who had exited the company in 1985 – returned in 1997 becoming the interim CEO. Thanks to him and to his instillation of a completely new corporate philosophy regarding easy-to-recognize products and simple design, Apple established itself as a leader.

Taking into consideration the MKC-SO framework previously discussed, Apple places itself in the high-level of the vertical axis of Market Knowledge Competence. The brand is a leader on the market, and since the very beginning it has been able to both understand clients' expectation and to even anticipate their needs. Thus, its customer knowledge is quite high. Then, Apple's knowledge of competitors is deeply developed as the brand has showed a strong ability to react to others' strategies by proposing similar and alternative products.

Sustainability Orientation

By visiting the company's website, the environmental commitment appears clear. In particular, Apple states: "The products you love also love the planet" and "Behind every Apple product is a plan for the future" (Apple, n.d.).

The emissions creating while manufacturing Apple products account for the 70% of the company's carbon footprint. Going towards clean energy across the supply chain, the majority of that footprint can be erased.

Since 2015, Apple Supplier Clean Energy Program has helped Apple manufacturing suppliers in switching to renewable electricity coming from solar, wind and other renewable sources.

Another way in which the company is trying to reduce its carbon footprint is through the development of energy-saving products. Indeed, the amount of electricity customers use to power their devices constitutes 22% of the total carbon footprint. By using particular software and power-efficient components, Apple devices can intelligently manage the power they consume.

In 2016, Apple introduced Liam, a line of robots able to disassemble iPhone 6, with the aim of improving material recovery from end-of-use products (McSweeney, 2017). In this way, Apple tried to close the loop on material use within its own product stream. Indeed, many of the materials used at Apple have specific specifications and purity levels: recycling them in segregated streams can increase the final benefit (Apple, n.d.).

Apple has been carbon neutral since 2020. By 2030, the plan is that the products will be carbon neutral too. Together with it, the company is committed to those most affected by climate change and to global communities that are finding solutions and taking actions to fight it.

The main actions in order to implement the plan are:

- Low-carbon design: through using material more efficiently and reducing the amount of energy used, Apple is designing carbon impact out of its products.
- Energy efficiency: the company is increasing energy efficiency across all the retail stores, data centers and manufacturing sites.
- Renewable electricity: corporate operations already run on 100% renewable electricity. The aim is to also use clean energy to make every product by 2030.
- Avoiding direct emissions: Apple is looking for solutions regarding manufacturing and shipping materials and components in order to reduce direct greenhouse gas emissions.
- Carbon removal: the company is working to remove carbon from the atmosphere to address the emissions it can't avoid.

One recent action the company has done in order to reduce its environmental impact regards the removal of power adapters from iPhone 12 – and the following models – packaging. More in details, this small issue is estimated to result in a reduction of mining over 550 thousand metric tons of copper and zinc ore, and to enable to use smaller packaging. In this way, shipping pallet can be fitted up to 70% more, which results in a further reduction of the company's carbon footprint.

Apple's commitment towards sustainability is not only related to environment. Indeed, as appears from the company's Supplier Responsibility site, Apple hold itself and its suppliers to the highest standards regarding labor and human and civil rights protections. Thus, the company shows a deep attention to ensure that every person in the supply chain is valued, respected and safe.

To sum up, with reference to the **MKC-SO framework**, Apple represents a company with a medium-high sustainability orientation, as its objectives are balanced with reference to the market needs. However, even if they have a high potential to generate efficiencies, they are not intensively explored.

More in details, regarding the four sections of the BMC presented:

Business Infrastructure:

- Apple is working towards boosting supply chain sustainability. Indeed, it has set a goal of completely decarbonizing its supply chain by 2030 (Kahn and Jenkins, 2022).
- By now, apple has more than 200 suppliers committed to using clean energy.

Customer Value:

- Customers are only passively involved in the purchasing phase. When dealing with Apple, they only get information about the specifics or what they are buying. Indeed, there is no process of knowledge building or sharing.
- By analyzing the company's value proposition, there is no clear interest towards sustainability in the long-term.

Customer Infrastructure:

- Communication and marketing is usually made up of big claims and slogans, which are a little bit misleading. For example, a huge effort was put in order to highlight that Apple is already carbon neutral for its global operations, while all the other sides are not taken into account.
- Communication at Apple tends to be as big claims, over-exaggerating the products and oriented toward the creation of hype.

Management Infrastructure:

- Apple's corporate mission is "to bring the best personal computing products and support to students, educators, designers, scientists, engineers, businesspersons and consumers in over 140 countries around the world." (Apple, n.d.). Overall, there is no clear direction or orientation towards sustainability or a sustainable approach.

- On the investments side, Apple has lately acquired a solar farm that will be able to generate 300 megawatts of carbon-free electricity. The project is still ongoing.

The innovation: Liam the Robot

Liam the robot was introduced by Apple in 2016. It consists in a line of robots able to disassemble one particular iPhone version, iPhone 6. Its main objective is to improve material recovery from end-of-use products (Chandler et al., 2019).

By taking into account Verganti's framework regarding Technology and Innovation, Apple's case is a Technology-Push innovation. Indeed, the technology introduced is a brand-new one, never seen before, while the meaning changes only incrementally.

Liam the Robot represents the creation of a proto-institution in the consumer industry.

In this way, Apple tried to close the loop on the use of material within its own product stream. Indeed, since a large part of the materials used at Apple have particular specifics, recycling them together with other products largely decrease the final benefit (Migliorino, 2016).

Throughout the years, Liam has remained a prototype, which means that its high potential has not been exploited at its best.

Micro-institutional change

Business Infrastructure:

- The innovation was introduced after the critics regarding Apple business model came out. Indeed, an article by VICE strongly criticized Apple's pay – use – no repairable system.
- Liam The Robot was only a prototype, and it remained as that. Indeed, no further investments were done, and there is only a long-term plan for its expansion.

Customer Value:

- Overall, the innovation proposed only involved a line of products (i.e.: iPhone 6). Indeed, it was not then implemented into other lines.
- Being the proposed innovation only impactful on a small part of the product portfolio, it does not concretely make Apple's commitment towards sustainability tangible.

Customer Infrastructure:

- Communication regarding Apple's Liam the Robot was quite misleading ("The Robot that can disassemble iPhones") and it was carried out a long time in advance.
- Overall, the company is disclosing analysis and reports have been in order to build and spread knowledge together with end-customers. The issue can be further developed, but the company has shown an interest toward it.

Management Infrastructure:

- Apart from short reports, articles and a little information, the innovation didn't have a lot disclosed. Indeed, it seems to be more performance and short-term related.
- Although Apple's vision seems not at all related to sustainability, the company seems to be focusing on a long-term perspective. Indeed, there are some targeted objectives such as "by 2030" or "by 2050" ones, and the company is also promoting a long-term view regarding sustainability.

With respect to the previously introduced Break, Make, Maintain perspective, Apple's innovation can be defined as focused on maintaining the whole previous structure and value proposition. Indeed, by being a prototype, nothing is really broken or made. Overall, the entire system is maintained.

4.3.3. Lush

Overview of the company

Lush Retail Ltd., also known as Lush, is a British cosmetics retailer headquartered in Poole, Dorset, in the United Kingdom. Its origin goes back to 1995, when a trichologist – Mark Constantine – founded it together with his wife and five others.

Nowadays, Lush had 951 stores globally, being operative in 49 countries with the main portion of stores located in the US (Lush, n.d.).

Among its product portfolio people can find a really wide range of cosmetic products. It sells body products such as scrubs, creams, shower gels, lotions and soaps, face products as masks and hair ones.

Before founding Lush, in the 1970s two of the co-founders, Mark Constantine and Liz Weir, started their own business selling natural hair and beauty products. In 1977, they started supplying Body Shop by Anita Roddick. At the beginning of the 90s the big retailer was not feeling anymore comfortable in dealing with products with not-owned formulations. Thus, Body Shop bought them out.

After the end of the non-competition agreement, enforced until 1994, the two of them opened the first cosmetics shop on High Street in Poole. The main activity concerned creating cosmetics from both freshly purchased fruits and vegetables.

Other stores were then opened first in London, Croatia, until the expansion to Australia in 1997 and to Brazil in 1999.

Lush clearly states that its target is not defined, and that for this reason its mission is “trying to make stores welcoming to all” (Lush, n.d.).

The company follows a so-called “no advertising policy”, which means it does not spend money on endorsing celebrities, TV campaigns or big ads. Indeed, it relies more on user-generated content, which concerns any form of content posted on social media or other online platforms by consumers, in a completely freely, unsponsored, and unpaid way.

In the same direction, in 2021 Lush removed its Facebook, Instagram, Snapchat and TikTok accounts affirming that these services were creating negative mental health and body image effects.

Regarding the MKC-SO framework that was introduced a few paragraphs before, Lush can be considered having a medium-high Market Knowledge Competence. This conclusion is derived from the fact that the

company has proved to have customers' knowledge and to be able to understand their buying needs since it is offering clients different products and, more in details, it has enriched its products offering quite a lot.

Sustainability Orientation

The brand has always been conscious of how its products interact with the environment. As a result, the most important commitment is to adopt innovative solutions to have a beneficial impact on the environment.

Lush aspires to become more sustainable as business expands, and to use its purchasing power to effect positive change (Lush, n.d.).

Lush claims that it uses only vegan and vegetarian recipes. More in detail, products are 100% vegetarian, and 85% of them are also vegan. Among the ingredients, people can find fruits and vegetables such as grapefruit juice, vanilla beans, avocado butter and coconut. Some products contain honey and beeswax. Some ingredients are also preferred to others due to environmental issues, as it happens for almond and olive oil respect to the mineral one. Indeed, fields of trees can make people lives much richer than oil fields.

Legislations and new regulations that can reduce the brand's impact are strongly welcomed, and Lush supports groups who try to change laws towards a more sustainable policy.

The main issues and areas Lush is tackling in order to take care of the environment are:

1. **Packaging:** Lush uses as little packaging in the shops as possible, by also promoting "completely naked" products (nowadays, they are about half of the products).
However, when packaging is necessary, the brand uses recycled materials. At the moment, the amount of this reused packaging is the 90%. The aim, is to get it to 100%.
2. **Raw Materials:** Lush preferably uses ingredients produced in a sustainable way. Palm oil, for example, was of course replaced by more earth-friendly oils in soap bases.
The mission of the brand is shared with suppliers, as only the one that respect both the environment and animals are kept into account. Thus, Lush is working with them in order to minimize their environmental impact.
3. **Waste and Recycling:** At the moment, the total recycled content in all Lush packaging is around 89%. More in particular, bottles and pots are made with 100% PCR (post-consumer recycled) plastic and carrier bags are done with 100% post-consumer recycled paper.
4. **Energy:** The brand is working to reduce the amount of energy that is necessarily embedded in the production, the transportation and the selling phases. The processes used by the company have been made more efficient, by also educating staff and workers to switch off when needed and to replace less efficient equipment.

5. Water: Knowing that water is a luxury not everyone has, Lush has avoided using huge amounts by introducing innovative products such as the shampoo bars.
6. Communication: Environmental performances are reported on a yearly basis through the Sustainability Report. The organization is actively encouraging and supporting all the people that want to help spreading this message as Green Helpers.

Lush main focus is on limited packaging or on package-free products. For products requiring packaging, the company uses 100% post-consumer recycled plastic to make the pots.

The most important step in this direction has been the promotion of the "BRING IT BACK" project starting from 2008, in which the company started giving away a free fresh mask to anyone who recycled five black pots.

The choice of black as a color for pots and lids represent an important and strategic decision as it enabled the company to use 100% post-consumer recycled feedstock in the easiest possible way. Indeed, by avoiding any color many sources of recycled PP plastic can be incorporated.

The scheme is a kind of "renting" program: customers purchase their products knowing that they are just renting the packaging, and that after having finished them they can simply return it. Customers are involved in the process, but the responsibility of waste-reduction and resource recycling is completely up to Lush.

Since 2021, BRING IT BACK program has been transformed and an even more innovative recycling scheme has been introduced. Indeed, customers can claim 50 p/c towards their shopping each item they bring back. In the meantime, the fresh face mask for 5 empties

Animal testing is completely excluded in Lush business. Indeed, the brand doesn't support any company that promotes this testing in any part of its value chain: the company tests its products on human volunteers. Moreover, Lush has been crucial for the development of cruelty-free standards still used in the field of cosmetics as of today. Indeed, back to the 1980s the founders worked with Cruelty Free International – an animal advocacy group that organizes campaigns for the abolition of all animal experiments – with the aim of developing ethical standards to deal with the testing of cosmetic companies.

Referring to the **MKC-SO framework** previously introduced, Lush shows a medium level of Sustainable Orientation. Indeed, by analysing the company's business model, communication and marketing means result to be a little bit misleading. More in particular, claims as "all-natural" and "all-organic" are not really telling the truth due to the fact that some synthetic ingredients are used in some of the products. Here the details regarding the adaptation of the BMC previously introduced:

Business Infrastructure:

- Lush has a policy of aiming to purchase materials directly from producers in order to foster good relationships with them and to guarantee an uninterrupted supply of good quality materials.
- Even if the company is recognized as all-organic and all-natural, it is using some synthetic ingredients. The brand maintains a transparent list of products in which parabens or palm oil, not-so-natural ingredients, are contained. Moreover, despite their strong position against animal testing, 33% of the products cannot be suitable for vegans. Indeed, they contain some animal products like milk and beeswax.

Customer Value:

- Lush mission is to make their products by hand with only vegetarian ingredients and little-to-no preservatives. (Lush, n.d.)
- Lush whole production is carried out with the same objective: "leaving the world lushier than we found it". Thus, the interest and the desire for ethical and natural production does not only affect some areas, but it is spread among the entire product portfolio.

Customer Infrastructure:

- Lush customers are called to action. They can be directly involved in the business, as they could participate to some initiatives like, for example, the Bring it Back program. Moreover, during some initiatives and occasions they receive further information and their awareness regarding environmental topics is raised.
- Regarding communication, words like fresh and natural are common in every advertisement campaign. However, the company also uses harmful preservatives like parabens, which are not publicly exposed. Lush reputation claims the brand is all-natural.

Management Infrastructure:

- The company was born with this natural, ethical and fresh missions and values, and through the year it has developed many projects and programs aimed at doing so.

The innovation: Bring it Back program

Lush introduced the so-called BRING IT BACK program, and thus the recycle scheme, in 2008. Then, in 2021 it was further developed with some new features in selected areas such as UK and Ireland.

The program consists in giving customers the possibility to bring Lush packaging empty and clean back to the store, thus receiving a reward. Indeed, after having collected 5 empty pots, a free mask or solid product is offered.

By taking into account Verganti's Technology and Meaning Driven Innovation matrix, this innovation could be defined as a Technology-Push one. Indeed, while meaning is only incrementally changes, the technology used is radically new.

The recycling scheme represents the creation of a proto-institution in the beauty sector.

The main characteristic that differs from other beauty brands is Lush recycled and recyclable black plastic. By using this color, the brand is able to use 100% of post-consumer recycled feedstock. Thus, a lot of different sources of recycled PP plastic can be incorporated into the Lush pot mix.

Through Bring it Back scheme, the company uses packaging as a service message to support circular economy. More in details, the customer is only responsible for bringing the packaging back, as the responsibility of both waste-reduction and resource recycling is taken by Lush.

Micro-institutional change

Business Infrastructure:

- Black packaging represents the easiest way to use more post-consumer recycled feedstock.
- Transparency is guarantee along the whole supply and production chain. Customers are also informed regarding how their pots and packaging will be recycled.

Customer Value:

- Through the Bring it Back initiative, Lush aims at introducing circular economy in the beauty sector, responsible for a huge amount of waste. In this way, it can further intensify its mission towards an all-natural cosmetics industry.

Customer Infrastructure:

- Customers are integrated into the process and can actively participate to the revolution. They receive information and instructions regarding sustainability and recycling, and they are guided towards this shift.
- Communication is used to raise customer awareness on environmental topics: "Towards conscious consumption and a genuine harmony between commerce and natural resources".

Management Infrastructure:

- The program was not a temporary initiative. It was introduced in 2008 and further enriched along the years. In 2021 new features and small other versions were launched in some selected markets.

With respect to the previously introduced Break, Make, Maintain perspective, the authors notice that this innovation was mainly focused on making a new relationship with end-customers. Indeed, the company stressed the importance of proactivity, of participation, and in this way clients can really feel part of the change. Aligned with that, Lush also focused on making new links with suppliers and other members of the value chain, in order to spread the mission vertically.

4.3.4. Garnier

Overview of the company

Garnier is a brand of the group L'Oréal that produces skin and hair care products. It is the most sold brand of the whole group, and its products are commercialized all over the world (Garnier, n.d.).

The history of the brand starts in 1904, when Alfred Amour Garnier, hairdresser and perfumer, that in the first years of the 21st century opened a shop for hair care lotions. The first product produced and sold was a haircare lotion produced by only plants

In 1909 the company was sold and the name became first Garnier Institute, and then Laboratories Garnier. The society was guided for a long time by the chemist Bernard Guilpin and the doctor Gaston Roussel, the founder of today's Sanofi Aventis.

Throughout the years, Garnier product portfolio enlarged more and more.

In the 60s, the brand was the first to sell home-hair dye.

In 1965, the brand was acquired by the giant L'Oréal. Throughout the years, Garnier enlarged its competences in the dermo cosmetics sector, and has been able to consolidate its reputation as a leader industry in the beauty business.

Today, the brand is a recomposed family of brands in four categories: haircare, hair color, skincare and sun care. Garnier's formulas are still known as rich in natural active substances, which means they have high beneficial properties.

Even if Garnier is a brand per se, it has many divisions under its umbrella. In particular, the sub-brands are:

- Garnier AMBRE SOLAIRE
- Belle Color
- Garnier FRUCTIS
- FRUCTIS STYLE
- Garnier BIO
- Garnier COLOR Herballia
- Movidia
- Garnier Nutrisse Crème
- OLIA
- Garnier SkinActive
- Ultra-DOLCE Bagnodoccia
- Garnier Ultra DOLCE

As a last step regarding the general overview of the company, it is important to consider the so-called MKC-SO Framework and in particular the Market Knowledge Competence dimension. Garnier as a brand places itself in the high-level of the axis, as its ability to focus on customers' buying habits is deeply embedded in the business model. Indeed, as a matter of fact, the variety of products offered, and the short-term collections launched on the market denotes a very well-developed competitors and customers knowledge.

Sustainability Orientation

Garnier is one of the pioneers in formulating naturally inspired products since its entrance on the market, back in 1904. Going on with the years, Garnier hasn't lost its sustainable commitment. Indeed, it has made even major steps towards a green and more natural production.

Garnier's effort towards environmental sustainability aims at preserving biodiversity by reducing its effect on the climate change.

Among the major projects the brand is leading there is the Green Beauty initiative, which represents a complete end-to-end approach to sustainability. The Global Brand President, Adrien Koskas, contend that it will of course take time, but Green Beauty will transform Garnier and, hopefully, the whole beauty industry.

The objective of the Green Beauty journey, launched in 2020, is to transform every single stage of Garnier's value chain by reducing its environmental impact. It represents a sort of holistic commitment, touching every single part and business unit of the company in a shared transformation.

The leverages the brand is tackling are:

- Solidarity sourcing: by 2025, Garnier will have empowered 1000 communities all around the world.
- Product & Formula: by 2025, 100% of the products will have an improved environmental profile.
- Plastic & Packaging: by 2025, all packaging will be either reusable, recyclable or compostable.
- Factories & Manufacturing: by 2025, the mission is to reach 100% Carbon Neutral Industrial Sites.
- Approved by Cruelty Free International under the leaping bunny program: the leading organization working to end animal testing.

In order to measure the real impacts, the initiative also includes a Sustainability Progress Reports in which complete transparency is guaranteed. Through this, it is possible to map the progress in order to figure out how the brand will reach the targets by 2025. This particular report has been developed starting from 2019.

Garnier has already addressed these challenges. Thus, as published in the report, Garnier's 2020 achievements regarding the five sections above are:

- Solidarity sourcing: 787 communities already empowered.
- Product & Formula: 65% biobased ingredients, 85% of the biobased ingredients sustainably sourced.
- Plastic & Packaging: 54% of the PET plastic comes from recycled material
- Factories & Manufacturing: 49% of the industrial sites are carbon neutral

Through this project, Garnier has set a series of 2025 targets to reduce the environmental impact of its value chain. Indeed, the brand ensures it is providing sustainable beauty for everyone. It has committed for a sustainable sourcing and procurement, for a reduction in the environmental impact of the packaging, and for a constant increase of the biodegradability of its formulas.

Since 2021, Garnier is providing customers Green Beauty milestones: educational content series giving access to expert knowledge and real advices. In this way, the aim is to encourage and empower 250 million people to live greener on the planet by 2025.

The whole project started from a global survey that revealed that, even if 81% of people want to be more sustainable, less than 6% - at the end – have concretely taken daily actions to protect the planet. The investigation was carried out relatively to the project One Green Step, that aims at creating a snowball effect of environmental action by triggering further people.

The content has been realized together with National Geographic CreativeWorks, and it explores everyday changes that can make real differences. The question that acts as a tag line and a slogan is “Can Beauty Go Greener?”

In addition, Garnier is also sustaining Legambiente in Italy in order to remove plastic waste abandoned in the environment.

Sustainability at Garnier does not only mean environmental sustain. Thus, people and social care is also at the core. For this reason, Garnier Ambre Solaire supports the Europe’s Beating Cancer League. As a responsible brand, Garnier commits itself in order to educate people to prevent the risks connected to a wrong exposition to the sun. The project has started in 2006, and since that moment it has always been carried on.

Garnier is also approved by Cruelty Free International under the Leaping Bunny Programme, which is the leading organization working in order to end animal testing.

In view of the **MKC-SO Framework** that was previously explained, the company here shown can be defined as having a low-level of SO. Through advertisement and communication means, the company seems to hold a sort of sustainability interest. However, by analysing the Business Model and, in particular, its key activities, it appears that they are not embedded in the model.

More in details, considering the four areas of the BMC previously introduced:

Business Infrastructure:

- Suppliers are not selected due to their sustainability certification of orientation. More in details, they are big distributors with no clear or disclosed interest towards sustainability.
- Garnier has a responsible key resources management through which employees receive the Living wage salary. Apart from this, key resources do not have any relation, interest or link with the sustainable orientation of the company.

Customer Value:

- Overall, Garnier business model appears to be far from a sustainable one. Indeed, its activities and practices are not sustainability oriented.
- Along the years, many accusations of greenwashing have been made to the brand.

Customer Infrastructure:

- The company delivers big and misleading advertisement about green and clean products, without actually delivering what they promise. Indeed, even if they use expressions as "sustainably sourced", "nourishing and gentle" or "paraben-free", many chemical substances are contained in them.

Management Infrastructure:

- Garnier's mission is to develop beauty products that are both good for the client and for the planet (Garnier, 2020). For this reason, the brand is showing an increasing interest towards sustainability. However, since it is mainly treated incrementally, it is not concretely achieved by now.

The innovation: Garnier Beauty Recycling Program

Garnier Beauty Recycling Program was launched in 2011 in partnership with TerraCycle, one of the world's leader in the collection and repurposing in post-consumer waste hard-to-recycle. (Terracycle, n.d.).

The program consists in giving customers the possibility to recycle Garnier® skincare and hair care packaging by sending them to L'Oréal third party partner, TerraCycle, that will re-use it in new products. Garnier acts as the sponsor for this national recycling program. Thus, there is no direct cost to customers.

Taking into account Verganti's matrix about Technology and Meaning Driven Innovation, Garnier's program could be defined as a Market-Pull innovation. Indeed, both meaning and technology are incrementally changed thanks to this initiative.

The recycling scheme offered by Garnier represents the adoption of an already existing proto-institution in the beauty sector.

For customers, the process is quite smooth and easy to do. Clients can simply collect their own waste, which needs to be a skincare or hair care packaging, and create a TerraCycle account to join the program. Then, they can fill any box they have, print a free shipping label and send it to TerraCycle. The company will take care of the recycling and reuse of the packaging.

The program is limited to some areas and has a limited number of enrollments. Indeed, if the program is full, clients will be added to a waitlist. Throughout the years, it has diverted more than 10 million empties from landfills. (Garnier, 2020)

In order to foster collaboration and participation, clients are stimulated to send in their recycling to earn reward points. Shipments earn 100 points per pound and, in order to earn reward points, shipment must weigh at least 15 pounds. TerraCycle points can be donated to charitable organization. In particular, \$0.01 per point is redeemed.

Micro-institutional change

Business Infrastructure:

- Garnier supplier, Terracycle, is the global leader in recycling hard-to-recycle materials. Its huge dimensions are thus leveraged by the company in order to increase its visibility on these issues.
- Garnier does not concretely react to the innovation with some changes in its value chain.

Customer Value:

- The business model does not show a real integration with the innovation proposed.
- Garnier only acts as the sponsor of the initiative, but the whole actions and responsibility is up to TerraCycle.
- The project is not scalable, as customers need to print and to send things physically. Consequently, the innovation is not as sustainable as it seems to be.

Customer Infrastructure:

- Customers can actively participate in the collection of materials and have a real interaction regarding the innovation.
- The real shift towards the change of institution is not transmitted to customers, as they only interact in one of the phases and do not have a clear idea on how the process work.

Management Infrastructure:

- Garnier only acts as the sponsor of the program. Indeed, it has no real effect and interaction apart from economically supporting the activity.
- Since the program is only available in some selected areas and on some conditions, its impact seems not to be long-term related.

With respect to the previously introduced Break, Make, Maintain perspective, the innovation stressed the making of new partnerships. Indeed, Garnier decided to partner with a big company to leverage its size. On the other side, all the other aspects are only maintained.

4.3.5. Manteco

Overview of the company

"Manteco started with an old military blanket back in 1941, from a semi-destroyed spinning mill to a flagship in the textile industry." (Manteco, n.d.)

Manteco is a leading textile company for sustainability and high-quality fabrics.

The story of the company starts in 1940s in a small town called Resina, close to Naples. In this place, military goods of each kind were gathered from across Italy.

Some charitable societies active at that time in the area used to collect all manner of goods that were no longer wearable, and to sold them to the highest bidders.

1940s were the years of the Second World War: at that time, the situation in the Italian country was terrible. Devastation, limited resources, limited number of domestic sheep pastures, no money to be invested. Those garments, even if already used, represented a very useful resource, as they were made of high-quality and extra-fine worsted wool.

The founder of the company, Enzo Anacleto Mantellassi, immediately understood the potential embedded in this commodity. Thus, right after having established the first steps through the acquisition of a semi-destroyed spinning mill, he started a huge business (Manteco, n.d.).

The process consisted in first collecting large quantities of second-hand military blankets and garments and transporting them to Prato, where they could begin their journey and be brought back to a new life. Technically, the garments were shredded and then spun to create recycled wool yarns. In addition, the process was – and still today is – completely chemicals-free, as it works through a mechanical way only. At the beginning the color of the material created restrictions, thus Enzo weaved these garments to create heavy blankets rather than fabrics.

As the years were passing, the gathering done in Resina was no longer enough for the business. For this reason, Enzo decided to set up his own by creating an innovative system constituted of three floors:

1. The third floor acted as a gathering place where garments and blankets still unsorted were divided.
2. The second floor was again dedicated to sorting based on color and shade.
3. The first floor represented the core of the lab: there, garments were given a new life.

Along the years, Mantellassi family refined more and more the recycling process and was able to take it to the luxury world. The brand coined its own process, Recype, and its own next generation of recycled wool, MWool.

Recycle is defined as “the art of creating colors with no dyes”. Indeed, nowadays Manteco produces an endless range of regenerated wool colors through this process. It represents Manteco’s circular and chemicals-free way to create recycled wool colors. In order to manage in doing so, artisans mix different fibers and shades, developing recipes of no-dye colors that are then archived and reproduced over time.

In this way, in more than 80 years Manteco has been able to develop its Infinity Color Collection, composed of more than 1000 colors.

MWool is the result of more than 80 years of heritage, know-how and innovation. It is a recycled wool that can be distinguished from any other due to the accurate selection and deep testing of the best possible raw materials. In addition, the creating process is a low-impact mechanical one, that ensures a masterful blending and treatment.

To conclude the overview of the company, it is crucial to also consider the MKC-SO framework that was introduced before, and more in details on the Market Knowledge Competence dimension. Manteco positions itself on a medium-low level of the axis. Indeed, both its customers’ and competitors’ knowledge are not very developed and exploited. Manteco, being a family company with a strong focus on sustainable wool, has never explored other areas and has decided to keep its core business mainly around recycled wool. Shifts in clients’ taste and in the competitive landscape do not affect Manteco’s way of producing and addressing the market.

Sustainability Orientation

Manteco constantly pursues the objectives of expansion and growth, always keeping attention to enhance the values of sustainability and innovation that are embedded in its nature. Thus, the brand is trying to improve its flagship zero-waste system, its sustainable design and traceable circular economy projects.

Since 1943, sustainability has represented the biggest part of Manteco’s DNA. For this reason, objectives for growth and improvement have been constantly pursued by keeping searching for innovative solutions.

Manteco adheres to the principles of the UN Agenda 2030 for sustainable development. In the brand’s growing process of awareness, MantEco for Planet, a roadmap for sustainability in line with the 17 SDGs, was defined.

In order to make the roadmap more concrete and to make it possible to evaluate the targets achieved, the brand also issued a Charter of Values for Sustainability that consists of 6 values:

- Nr 1: Policies and Objectives

Manteco’s policies and objectives are oriented towards sustainability. Every year, a Sustainability Report that follows the GRI Standards is issued. It contains all the performance indicators and its final aim is a constant improvement.

- Nr 2: Traceability and Sustainable Supply Chain

The brand is committed to spread sustainable values vertically, along the whole supply chain. Indeed, it is for this reason that the Charter of Supply Chain Commitments was shared with the entire Manteco System.

- Nr 3: Design and Choice of Sustainable Materials

Manteco evaluates its social and environmental impact by measuring the energy to make the materials, water consumption and the amount of waste produced. The adoption of a science-based life cycle assessment calculation system helps and guide the production choices towards more conscious decisions.

- Nr 4: Control and Monitoring of Chemical Risk

Knowing that the use of chemical products is among the most significant impacts associated with productivity, the brand minimizes the release of them into the environment and is targeting at a progressive elimination. Manteco has adopted the 4sustainability Chemical Management Protocol for the implementation of the so-called MRSL ZDHC, that represents the possibility to monitor and control chemicals during all the phases of production.

- Nr 5: Climate Commitment

Manteco has been fighting climate change since the beginning. It has defined a path to first manage and then mitigate its impact, by assessing production related emissions.

- Nr 6: People First

It is not only environmental sustainability: for Manteco, people are “the beating heart of the company” and their welfare needs to be ensured.

Justice, respect, equality need to be ensured. Along with this, also the safety and health of people are of crucial important. In order to create and to stimulate the right relationship with its employees, the brand has invested in his Manteco Academy, through which it supports and train professionals, both internal and external.

It was the first textile company to ever apply on its luxury wool textiles a life cycle assessment (LCA) study based on science.

Although textile industries in general are particularly in the spotlight due to the heavy environmental impacts they create along their products’ life cycle, Manteco represents an exception in this. The brand has developed its entire value chain based on the recycling of discarded textiles and having as an output a secondary wool fiber named MWool.

By comparing Manteco’s production process to the traditional one that starts from virgin fibers, results show that recycled wool fibers can save about 60% of the impacts. Thus, the environmental impact of MWool is less than 10% of the virgin counterpart, and less than 1% of the carbon footprint, particulate matter, land use and water use.

Considering the **MKC-SO framework** that the authors introduced before, this company has a high level of Sustainable Orientation. By analysing the key parts of the business model, a clear link between environmental concerns and actions was found. Indeed, long-term decisions and investments regarding processes and tools used in production show how embedded this interest towards sustainability is into the whole company business.

By taking into account the BMC previously introduced, the four sections can be described as follows:

Business Infrastructure:

- Raw materials are accurately selected and tested before entering in production.
- Small and local businesses are selected as suppliers.
- Production methods are based on scientific studies and have been studied and certified. . Indeed, the company owns the world's first LCA applied on recycled wool fibers, that was developed after years of study together with Politecnico di Torino.

Customer Value:

- Since 2016, the brand is providing a clear and total disclosure through Sustainability Reports. In this way, the totality of the business model ends up being tracked.

Customer Infrastructure:

- Manteco perceives the importance of customers and clients as also a source for the future. Among the others, in 2018 Manteco has created the Manteco Academy in which students – the future of fashion – can learn how to design sustainable and circular garments.

Management Infrastructure:

- The huge amount of expenditures and investments the company has run towards scientific studies and certifications underlines the importance sustainability has in the business. Indeed, this is not only a mere and short-term process, but it is crucially embedded in the company mission.

The innovation: MWOol

Manteco's MWOol is the first-ever recycled wool produced with a Life Cycle Assessment approved by scientific community. This high-end recycled wool fabrics is the result of more than 80 years of heritage and innovation.

Manteco's innovation in the textile industry, considering the Technology and Meaning Driven Innovation matrix by Verganti, would be a Technology Push typology. Indeed, while the technology was unique and never seen before, the meaning linked to that remained the same.

The usage of recycled wool represents the creation of a proto-institution in the fashion sector.

The product differs from the wide range of others thanks to the accurate selection and the related deep testing of the best raw materials.

The final product results fully circular and zero-waste. Indeed, it eliminates the need to use new wool as it is made by mechanically recycling industrial waste. MWool®, compared to generic virgin wool, impacts -99,2% on climate change, -99,9% on water use and -93,3% on total energy consumption.

The process of blending and color creation is the Recype one, that consists in a circular and chemicals-free method to create recycled wool colors.

Micro-institutional change

Business Infrastructure:

- Manteco production method are based on scientific researches and tests. Indeed, deep analysis have been carried out to evaluate the uncertainty related to MWool impact.
- Suppliers are mainly small and local businesses.
- Employees are the beating heart of the company. Thus, employees are highly respected and a truly inclusive relationship has been developed with them.

Customer Value:

- Manteco's entire production is run in alignment with this innovation. MWool only represents a part, while many other processes and products have the same sustainable orientation.

Customer Infrastructure:

- The results derived from the usage of MWool with respect to traditional wool are disclosed, thus it is easy to customers to perceive their concrete impact. For example, by looking at the website clients can read that in 2021 – thanks to MWool – 817.712 wool garments ended up in landfills.

Management Infrastructure:

- Long-term investments were run in order to increase machinery and tools efficiency. Thus, the company shows a high commitment towards sustainability, that is not only performance related but is embedded in the whole business.

With respect to the previously introduced Break, Make, Maintain perspective, the authors notice that this innovation was mainly focused on making new methods and processes to develop the product. Indeed, the company invested a lot in the development of science-based systems to these new approaches.

4.3.6. Louis Vuitton

Overview of the company

Louis Vuitton Malletier, known as Louis Vuitton (LV), is a luxury fashion house based in France. It is part of LVMH, the holding multinational corporation.

LV's main products are iconic bags such as the Neverfull and the Speedy bag, wallets, trunks and other leather accessories. Moreover, a huge clothing line has been launched on the market in the last years.

It was founded in 1854 by Louis Vuitton on Rue Neuve des Capucines, in Paris.

The history of the brand does not start with the selling of bags and accessories, but with trunks and luggages. These were mainly produced with rounded-top shapes that made it easier for water to run off. In this way, they were not stackable (Louis Vuitton, n.d.).

LV noticed that Osilite trunks, produced by HJ Cave company based in London had a flatter shape. Thus, in 1858 he introduced a flat-topped shape to his canvas trunks, making them more lightweight and easily stackable. It was LV's gray Trianon canvas flat truck the first stackable luggage.

After participating in the 1867 Universal Exhibition in Paris, the brand became more famous and it recorded international customers too. The first stores in London (1885) and then in Chicago (1900) were opened, and the popularity of the brand continued to increase. Going towards a more international business, in order to protect against the duplication of the style, the Trainon design was changed to a beige and brown stripes one, and then to a Damier Canvas one containing a logo citing "marque L.Vuitton déposée". Finally, the Monogram Canvas, inspired on the trend of using Japanese Mon designs in the Victorian Age, was selected and patented.

During World War II, some authors state that LV collaborated with the Nazis by aiding the Vichy government and increasing their wealth from their business affairs with Germany.

Starting from the after World War II period, LV started to incorporate leather into some of its products, and many new products were launched on the market. These ranged from small purses, wallets or luggages.

In 1987, the LVMH corporation was created by the merging of LV and Moët et Chandon and Hennessy – manufacturers of champagne – as a giant conglomerate of luxury goods.

From there on, profits increased exponentially and by 1990 Louis Vuitton had opened 130 stores worldwide.

Starting from year 2001, the brand has collaborated with many designers and artists to create limited-editions and capsules. Among them, the most famous have been the graffiti line of bags developed together with Stephen Sprouse and the series of jewelry co-designed with Pharrell Williams.

In 2019, LV has been recognized as having a worth of \$47,2 billion, being at the first place in BrandZ's top 10 most valuable luxury brands.

Focusing on the MKC-SO Framework that was introduced a few chapters before, Louis Vuitton has a high level on the vertical dimension, represented by the Market Knowledge Competence. Considering competitors, the brand shows a high ability to collect and exploit their strategies, as it is quite common in the fashion market. On the other hand, customer knowledge is high too, as the company can deeply understand their expectation preferences and habits.

Sustainability Orientation

Along the years, Louis Vuitton has increasingly committed for sustainability (Louis Vuitton, n.d.).

Starting from 1992, following the Earth Summit that was held in Rio de Janeiro, LVMH as a group committed to the environment challenge by setting up an Environment Department.

The first Environmental report published by LVMH goes back to 2001, and it is the first in the luxury sector.

One step further to support circular production is reached with the creation of the joint venture CEDRE (Environmental Center for Deconditioning and Ecological Recycling) in order to collect and even recycle waste from the different maisons of the group.

In 2018, a Sustainable Development Department was opened in order to commit once again and more strongly to sustainability.

In 2019, LVMH signed a five-year partnership with UNESCO to support its intergovernmental scientific program.

In 2020, LVMH launched "Our Committed Journey" focusing in particular on preserving natural resources - protecting biodiversity and climate – and on also having a positive impact on society (Louis Vuitton, n.d.).

In the same year, the company has also started to gradually integrate an eco-design approach, which consisted in employing re-used, recycled and upcycled materials in some collections.

LVMH's latest environmental plan is called LIFE 360 and it represents an initiative with precise targets and timeframes to create a brand-new alliance between nature and creativity. It is structured around the four pillars of biodiversity, climate, creative circularity and traceability, is based on three key deadlines – 2023, 2026, 2030 – and details some really concrete and quantifiable objectives.

More in details, as disclosure in LVMH 2020 Social and Environmental Responsibility Report, here are the main areas of action:

Biodiversity: LVMH is committing to make a positive net contribution to natural ecosystems by 2030.

- Taking care of ecosystems: Crops and livestock are necessary to create LV materials, and for this reason the company commits to avoid and reduce its environmental impact
- Replenishing the resources borrowed from nature
- Adopting a scientific, partnership-oriented approach: the company draws on science and through partnerships in order to develop its action to protect biodiversity.

Climate: the company is contributing to the fight against climate change

- Stores that act as beacons for a low-carbon model: continuous improvements on the environmental profile of the stores, working towards a 100% renewable energy sourcing and promoting innovation in the facilities.
- Measures to step out the climate ambition: definition of a carbon pathway in line with the Paris Agreement, lowering the product footprint, prioritizing low-carbon transportation.

Creative Circularity: combining circularity, creativity and eternity is essential to make LV's product desirable.

- Eco-design to reduce environmental impact: through first the measurement of the environmental footprint, it is possible to re-examine it and to introduce innovative materials in order to guarantee new solutions.
- Circularity drives creativity: new circular economy services, revolution in the packaging system through the reduction of weight and volume and through an eco-design version.

Traceability: LVMH has developed some solutions to guarantee the materials that enters in the production line are traceable and compliant.

- Traceability guaranteed from the field to the end product: in 2019, the Animal-Based Raw Materials Sourcing Charter was published in order to established traceability for all animal-based materials from 2025 onward.
- Standards certifying end-to-end traceability withing supply chains

With reference to the **MKC-SO Framework** that was previously exposed, the company shows a low SO level. Indeed, even if at a first level of investigation its activities seem to be guided by a sustainability interest, environmental and social issues and concerns are not truly embedded in the business model. The company mission and its plans and programs are not related to sustainability in any way.

More in details, the four sections of the BMC can be described as follows:

Business Infrastructure:

- By 2030, 100% of LV strategic supply chain will integrate dedicated traceability systems. However, at the moment no clear indications or lists of suppliers have been disclosed.

Customer Value:

- Louis Vuitton's business model doesn't show any strides towards sustainability. In particular, the various activities carried out by the company seem to be misaligned with respect to environmental targets.

Customer Infrastructure:

- Communication and marketing are misleadingly underlining LV's huge commitments towards sustainability, such as its partnership with UNICEF to support children in 2016. On the other hand, the big amount of environmental impact created along the value chain is not in any way disclosed.
- Clients passively receive information regarding new trends towards sustainability through sustainability reports. There is no knowledge building at all.

Management Infrastructure:

- The company's sustainable commitment does not concretely result in a real policy to mitigate their climate impact contributing to global warming. Indeed, even if the brand knows where their main sources of pollution originate, they do not act in order to prevent it.
- Louis Vuitton shows a performance-related interest towards sustainability.

The innovation: Louis Vuitton Felt Line

In 2021, Louis Vuitton developed its first sustainable and recycled products with Felt Line for A/W 2021 Men collection. In addition, it was the first time ever in which recycled polyester was used in a bag (Louis Vuitton, n.d.).

The capsule consisted in one ready-to-wear long coat and three designs collection of jacquard bags.

The products are made out of recycled wool, recycled polyester and recycled plastic. The interior of the bags is 100% made of recycled polyester, while the external part – such as the chain and the plastic elements – are also nature-friendly. Indeed, the strap and handles are premium LWG-certified leather.

After Covid-19, Louis Vuitton as a brand has committed to six lines of action towards sustainability and an investment in clothing with a conscience. Among them, the "circular approach to creativity" is listed, which aims at the promotion of the reabsorption of materials along the supply chain. This collection shows LV commitment towards manufacturing 100% of its products through eco-sustainable methods by 2025.

Considering Verganti's matrix regarding Radical and Incremental Innovation, Louis Vuitton Felt Line represents an example of Market-Pull innovation. Indeed, it didn't require the introduction of a brand-new and unique technology. Together with that, the meaning keeps being the same it was previously.

Felt Line represents the adoption of an already existing proto-institution in the Luxury Fashion market.

Micro-institutional change

Business Infrastructure:

- Louis Vuitton's supply chain was not changed together with the introduction of the innovation. Indeed, the only shift towards sustainable production is represented by the case analysed.
- Raw materials and resources are responsibly sourced, but the limited perimeter of the production makes it irrelevant while compared to the rest of the product portfolio.

Customer Value:

- Overall, the collection only consists into 4 different pieces, which makes it difficult to assess its total impact.
- The innovation value proposition is not institution's related.

Customer Infrastructure:

- The mechanisms of knowledge sharing and building are not at all contemplated inside LV Business Model.
- Even by sharing its sustainability report, the brand does not represent a source of knowledge and growth.

Management Infrastructure:

- Being the capsule composed of 3 bags and one coat, the innovation ends up being performance-related more than long-term and institutional change-related.

With respect to the previously introduced Break, Make, Maintain perspective, the here proposed innovation was mainly focused on maintaining the old methods, processes and tools. In the same way, the company also maintained the same language and communication with its customers, without providing a new knowledge system or more information.

4.3.7. Patagonia

Overview of the company

Patagonia, Inc – also known only as Patagonia – is an American retailer of outdoor clothing.

The logo is the profile of the Fitz Roy Mountain, geographically located between Chile and Argentina, that represents an iconic and dreamy place for many American climbers.

Its foundation dates back to 1973, when Yvon Chouinard, an accomplished rock climber, opened the first store in Ventura, California, US. (Chouinard, 2016)

The founder began to sell hand-forged gear dedicated totally to mountain climbing in 1957 through his own company Chouinard Equipment. He first worked alone, only till 1965. Indeed, on that year he partnered with Tom Frost to improve his products and to also be able to address the growing amount of supply and demand issue he faced. Tom Frost was an aeronautic engineer and an alpinist; thanks to his design and aesthetic sense, his contribution was crucial to improve all climbing gears and tools.

The first product Chouinard started to sell was climbing nails with the precise characteristic of being able to be used more and more times. Indeed, back to that time they used to be fixed in the rock, ending up not to be removed and, thus, re-used. Starting from a old leaf of a harvester he first produced this gears from himself; as soon as people got to know about that, he began to sell it to the public (Patagonia, n.d.).

However, soon later people realized that these nails were damaging rocks due to the continuous coupled activities of insertion and extraction. So, even if they represented the lion's piece in Chouinard Equipment's cash flows, the founder decided to remove them from the catalogue, and to substitute them with aluminum dices that were not causing such these damages and problems. This is recognized as one of the first Chouinard's environmental shifts in his business.

In 1970, the brand experienced the introduction of color in clothes. Even if it now appears obvious, back at that time used clothes were mainly work-related, second-hand ones and they, of course, didn't really have a bright color. The usual sporty clothing of those years was represented by a T-shirt and a pair of grey trousers.

In 1970 Yvon Chouinard, who was in Scotland for a climbing travel, decided to try using rugby t-shirts as he expected the collar to be able to avoid the climbing sling to hurt his neck. This idea worked, and these t-shirts had a great success: everyone, even in the US, wanted those colorful products.

It is exactly after this that a huge success and some interest in copying and counterfeiting came out; thus, the necessity to find a name to identify the brand: Patagonia.

The legendary Pile Fleece Jacket is launched on the market in 1977. Inspired by the layered sweater used by North Atlantic fishermen, the clothing piece introduced revolutionary connotations as it was able to provide heat and to absorb humidity at the same time.

A second great invention follows a little bit later, when the highly insulating polypropylene underwear is introduced. Immediately, it collected a huge success in outdoor sports.

Patagonia has expanded its product line and has ended up including apparel dedicated to other sports such as surfing. Then, it also offers products like athletic equipment, backpacks, sleeping bags and camping food.

Patagonia's history is characterized by a strong sense of innovation and environmental care that is embedded in the brand itself. Company ethics and environment is constantly stimulating creativity, sharing and wellness for the employees. Chouinard is recognized as the most atypical manager of the clothing and fashion industry. His philosophy, the one of the "Manager by Absence" has never changed: he doesn't impose fixed hours to his employees, and he stimulate them in doing activities and things apart from working.

As of today, Patagonia counts hundreds of stores in more than 10 countries across 5 continents, together with factories in 16 countries (Patagonia, n.d.).

By focusing on the dimension of the Market Knowledge Competence with regards to the previously introduced MKC-SO Framework, Patagonia shows a medium to low level of MKC. Indeed, its clients' knowledge is quite rooted and exploited, but its competitors' one is not so developed. As a matter of fact, Patagonia is not interested in acquiring other brands' strategies, but it appears to be focused on its own one. The changes in trends and in fashion do not switch Patagonia's style and collections.

Sustainability Orientation

Patagonia has made a lot of effort to work on creative, new and original ways to keep used clothes out of landfills. Lots of programs, initiatives or collections have been developed and launched on the market.

The company started to use a circular economy strategy throughout all of its processes.

Some of the main pillars the brand is highlighting both on its website and on its sustainability report are:

- Realize the best product
- Avoid provoking unnecessary and unneeded harms
- Use business to inspire and to implement solutions towards the environmental crisis.

The message is clear and underlines the company's attention to the environmental impact of each single process that brings to the creation of Patagonia's apparel, since the real beginning to the end.

The most crucial and significant step towards sustainability and conscious production was the switch to organic cotton. Indeed, Patagonia realized that – after World War II – the world production amount of cotton at an industrial level had damaged the environment in a huge way.

Thus, the brand started a process of reconversion that was at the same time very important and very difficult to implement. It involved its own clothing apparel, but, most of all, the whole supply chain, from the beginning to the end. The process was completed in two years and, from that moment, all the cotton apparel was realized with organic cotton.

Patagonia Wool Standard establishes rigorous guidelines for wool production. Among them, there are a conscious animal treatment and a responsible management of the territory. Moreover, goose down is completely traceable.

Wool and cotton are not the only two sustainable materials Patagonia has introduced. Indeed, the company only uses recycled plastic.

Since April 2017, the company has announced the possibility to return merchandise in good condition in change for new merchandise credits. Indeed, the used material is cleaned, repaired and sold on the “Worn Wear” website. As of 2020, the initiative has sold more than 120 items.

Moreover, in 2019 a program named ReCrafted was launched. More in details, it represented a collection of one-of-a-kind pieces made from scraps of fabric waste. Through this, the company started to create and selling clothing made from what was previously only wasted away: scraps of fabric coming from used Patagonia gear.

Even if it started as an experiment, it resulted both proficient and successful. Indeed, even if they are usually priced more than the new version, they often sell out.

Thanks to this initiative, Patagonia revealed that it was possible for brand to really make upcycling a part of their business model. In doing so, the fashion industry’s enormous waste was chipped away.

Patagonia’s founder Yvon Chouinard co-founded One Percent for the Planet in 1985. Thus, the company commits 1% of its total sales to environmental groups. Moreover, the whole profit the company got from the Black Friday 2016 event, was devoted to groups of activists committed to protect the planet.

In 2012 the company was recognized as a B Corp. it was the first company to receive such a honor in the State of California.

One of the last introductions regards the fact that in 2021 the company announced that it would no longer produce its clothing with corporate logos added due to the fact that “additional non-removable logo” can reduce the life-span of a garment by a lot.

Patagonia's sustainability commitment is not only voted to environment. Indeed, it has also devoted to social and civil right support its last "Stop Hate for Profit" campaign. More in details, in July 2020 the brand suspended its advertising on Facebook and Instagram in order to raise sensitivity regarding hate speech on those sites.

The brands stores, which are rarely placed in crowded city centers, are built with recycled materials.

More than just a mere brand, Patagonia thus results as a mindset and a lifestyle, proving that fashion can really be sustainable.

To sum up, with reference to the **MKC-SO framework** previously introduced, Patagonia can be considered having a high sustainability orientation as its mission resulted – since the very beginning – very aligned and balanced with the market. In addition, it was also able to represent a sustainable differentiation advantage.

More in details, by analysing the Advanced BMC that was described before, the following insights can be developed:

Business Infrastructure:

- Patagonia has developed materials and environmental programs towards responsible production.
- The company is at 100% of renewable energy for its owned stores, offices and distribution centers.
- Throughout the years, Patagonia has cofounded different coalitions to change the industry by focusing more and more on improving the lives and workplaces for people all around the globe.
- Patagonia as a brand avoided Big Oil since 2019 by producing with recycled polyester. In this way, it has helped in keeping 14.6 M pounds of CO₂ out of the atmosphere.

Customer Value:

- Patagonia founded 1% for the Planet, and it is of course currently part of it. Therefore, it pledges 1% of the annual sales towards the preservation and restoration of the natural environment.
- Overall, due to its mission, Patagonia has showing concrete and touchable commitment towards protecting and restoring the stability and beauty of the planet (Patagonia, n.d.).

Customer Infrastructure:

- Customers are stimulated to participate to Patagonia's initiatives and programs. For example, by participating into the Won Wear initiative, clients can keep their gear in play. Indeed, they can buy used, trade in and fix their own gear. By extending garments' life by about two years, customers can cut their combined carbon and waste footprint by 82%. a rewarding system represents an even higher stimuli for end-customers.

- “There is a role for our customers to play, too”. By stating this on its website, Patagonia highlights the fact that it is teaching people how to take care of the gear they already have. Indeed, a process of knowledge sharing and then knowledge building is constantly carried out by the brand.

Management Infrastructure:

- Patagonia as a brand is committing towards three big milestones with respect to climate. These regard the elimination of virgin petroleum fiber, the introduction of exclusive 100% reusable packaging and the shift towards a net zero business.
- By stating that the priority in environmental responsibility is not to only offset goals but to really eliminate them, Patagonia shows a long-term commitment towards sustainability.

The innovation: Organic Cotton

Patagonia first started to use exclusively 100% organic cotton in 1996. Later, the brand also began to introduce recycled cotton, Cotton in Conversion and Regenerative Organic Certified™ (ROC) Pilot Cotton (Patagonia, n.d.).

All the virgin cotton is grown with organic practices in order to completely eliminate the use of synthetic pesticides or herbicides and GMO seeds.

The introduction of organic cotton in Patagonia’s line was not an easy procedure. First of all, the company had to cut its margins after having realized that customers were willing to pay just a little percentage more. Then, the sportswear line had to be cut from about 150 products down to 60 due to a shortage of organic cotton from the supply chain (Bianchi, n.d.).

While introducing the shift toward organic cotton, Patagonia also started a company-wide effort to help educate other employees, dealers and customers regarding all the potential benefits of the material. In particular, smart moves like organic cotton board games for employees in the retail stores and children’s coloring books for the kids’ section were introduced.

The shift was harsh, and it took two years for it to be considered a success. Indeed, in 1998 sportswear sales returned to previous levels.

As of today, all the virgin cotton the brand uses is 100% organically grown, “and we’ll never go back” states Patagonia (n.d.) on its website.

In Verganti’s framework, Patagonia’s innovation represents a Technology push as it radically changes the technology while incrementally changing the meaning.

Due to this, Patagonia’s introduction of organic cotton can be defined as the creation of a proto-institution in the fashion sector.

Micro-institutional change

Business Infrastructure:

- Patagonia supports the usage of organic cotton since, by growing raw materials without harmful chemicals, farmers reduce their workers' exposure to potentially carcinogenic compounds.
- By switching toward organic cotton, Patagonia had at first lots of difficulties as it had to create its own organic cotton supply chain. Indeed, while previously the orders were placed with factories, then they were directly organized with the farmers. This shift represented Patagonia's first widespread effort to change its entire value chain.
- Patagonia has piloted its first crop of cotton on farms working to receive the Regenerative Organic Certification, which aims to rehabilitate soil, respect animal welfare and improve the lives of farmers.

Customer Value:

- Overall, Patagonia uses organically grown cotton in all of its cotton products. Therefore, its product portfolio is coherent, and the totality of the brand was involved in the shift.
- Through Ironclad Guarantee, the company guarantees everything it makes. Customers can easily bring the product back to the store they bought it from for a repair, replacement or refund. Indeed, Patagonia is well-aware that prioritizing durability means consuming less energy and water and creating less trash. In this way, the entire life-cycle of the product is made longer.

Customer Infrastructure:

- Through a company-wide effort, Patagonia developed a series of initiatives to help in educated customers about the variety of benefits of organic cotton.
- In the case of organic cotton, Patagonia run the first company-wide environmental initiative and, together, it created both an internal and external environmental educational campaign.

Management Infrastructure:

- Patagonia's organic cotton introduction was just the first step towards responsible cotton usage. Therefore, the brand has also introduced Cotton in Conversion that allows farms to sell their crop while they are still in the journey towards certification.
- Patagonia's mission ("*We're in business to save our home planet*") highlights the long-term commitment the brand is showing and that it has always been promoting.

With respect to the previously introduced Break, Make, Maintain perspective, the innovation that the authors describe here shows a focus on breaking the relationship with old suppliers. Indeed, a new set of needs and requirements made the company shifting to new suppliers, able to provide what necessary. Together with that, the company also makes a new relationship with such suppliers, as it tries to integrate them with its mission and to spread it along the entire value chain.

In addition to this, Patagonia also makes new customer relationships through which highlight and sponsors its core values and mission.

4.3.8. H&M

Overview of the company

H&M commercial ideas is defined as "Fashion and quality at the best price".

H&M Hennes & Mauritz AB, also known as H&M, is a Swedish clothing company spread all around the world. In the retail sector, its focus is fast-fashion clothing both for men and women, but also for teenagers and children. Being active in 74 countries, with more than 5000 stores, it represents the second-largest global clothing retailer, following Inditex (H&M, n.d.).

The Swedish company's foundation goes back to 1947, when Erling Persson opened his first shop in Västerås, in Sweden. The original name was Hennes, which is the Swedish word used to mean "hers". Indeed, despite today's H&M business deals with both women and menswear, at that time it only sold female clothing.

In 1968 Persson acquired a hunting apparel retailer called Mauritz Widforss, based in Stockholm. This led to the introduction of a menswear collection in the product range. In addition to this, the name was modified to Hennes & Mauritz.

The first store outside the Scandinavian region opened in 1976, in London, and the global expansion targeted new markets such as Germany, the Netherlands, Austria and France. Then, the U.S. are reached in 2000, as Asia and other European markets.

Since 2007, H&M has acquired five other individual brands with separate concepts. They are COS, Weekday, Monki and Cheap Monday and & Other Stories. They were launched after H&M's expansion in Asia. The brands are present in different countries and have different styles and products.

The so-called "H&M way" groups all the values, policies and guidelines, and defines the true H&M spirit.

More in details, this approach is represented by 8 pillars:

1. Believe in people
2. Team working
3. Continuous improvement
4. Be direct and having the big picture
5. Have sense of initiative
6. Make things as easy as possible
7. Pay attention to costs
8. ...always keeping sustainability as the focus of each action.

With regards to the MKC-SO framework previously introduced, the company here analyzed has a high-level of Market Knowledge Competence. Indeed, as a leader in the fast-fashion market its ability to

understand and correctly address customers' buying habits is quite high. In addition, the company has a high level of knowledge of the market and its wide range of products witnesses its ability to adapt to it.

Sustainability Orientation

H&M is well-known a fast-fashion giant. Thus, its relationship with sustainability is not easy, and usually discussed and criticized. Indeed, even if the company has made some investments and has committed for sustainability, many accuses of greenwashing shadow its green impact/efforts.

Since 2002, H&M is providing a clear disclosure regarding sustainability as it is publishing its own Sustainability Report. In it, the company explains its effort for sustainability. Among all the data, there is the amount of sustainably produced materials, the percentage of recycled materials, information about carbon emissions and product transparency.

Since 2021, the group is integrating its annual and sustainability reports. This represent a very important step, which happened naturally as sustainability has been an integral part of the business, as stated by the CEO Helena Helmersson (H&M, 2021).

The sustainable effort started in 2013, when a great general interest towards green issues raised in the world. Indeed, in that year the Rana Plaza disaster happened in Bangladesh, and many movements were founded in response to this Among them, the Fashion Revolution no profit global movement was born.

Among the sustainable actions, starting from that year H&M began with the worldwide Garment Collecting initiative. It consisted in offering its clients a voucher in exchange for used garments in order to reach a zero-waste-economy. Clients had the possibility to bring any unwanted garments and textiles to any store, all year around. The donated garments had to be processed in order to create new ones, and in this way the lifespan of a garment could be increased.

In addition, in 2014 H&M introduced the Close the Loop collection, which was the first of many others. The initiative regarded the usage of recycled textile fibers, which was a really important step in closing the loop for fashion.

In the same year, the group joined other apparel companies in the supply chain adaptation for endangered forest protection. The action consisted into teaming with Canopy, a nonprofit, to remove endangered and ancient forests from the viscose and rayon fabrics.

In 2020 the company announced "Climate positive by 2040" as one of its goals. In order to achieve so, H&M is currently investing in innovative projects such as some studies to enable the reduction of carbon footprint of goods in transport.

To conclude, with relation to the **MKC-SO Framework**, H&M has shown a medium sustainability orientation. Thus, even if it has managed to place some emphasis on sustainability objectives, they are not strategically developed and organized.

By analyzing the Advanced BMC the authors previously introduced, the following characteristics can be defined:

Business Infrastructure:

- On the labour rights side, H&M committed for the Living Wage for its employees. In particular, this promise was due by 2018 but the company failed in meeting it.
- H&M publishes detailed information about its supplier policies and remediation processes. Together with it, the brand also publishes a quite precise list of suppliers in the final stage of production.
- Almost no participant of H&M's supply chain is certified by labour standards able to ensure worker health and safety.

Customer Value:

- Overall, H&M business model is oriented towards sustainability. However, since every step is taken incrementally and slowly, this procedure is requiring more time.

Customer Infrastructure:

- Big claims such as "Conscious Collection" or "All-organic" risk to be tricky for customers. Indeed, they usually focus on some of the factors characterizing products while hiding other issues, whether small or big. For example, the so-called "Conscious Collection" only contains at least 50% of sustainable materials.

Management Infrastructure:

- H&M's mission is "to drive long-lasting positive change and improve living conditions by investing in people, communities and innovative ideas.". However, its strategic choices do not seem to be integrated with real practices and activities.

The innovation: Organic Cotton

Since 2007, H&M has introduced some garments made from 100% organic cotton. By now, all H&M products are made of organic, recycled or responsibly sourced cotton.

H&M represents the world's biggest user of organic cotton.

Organic cotton needs 62% less energy and 91% less water usage compared to conventional cotton. Moreover, it does not grow with chemical substances, thus leading to an improvement in soil condition and to lower greenhouse gas emissions. (H&M, 2021).

On the one hand, the brand is motivating more cotton growers to start organic cotton businesses. Indeed, the amount of organic cotton is up to 1% of global cotton production.

On the other hand, H&M is investing on improving traditional production methods with the Better Cotton Initiative (BCI). The objective of the plan is to reduce the negative effects of traditional cotton growing, being them both social and environmental related. This initiative was taken together with other organizations such as WWF in 2004.

More in particular, when apparel is not made up of organic cotton, it might be composed of recycled cotton or cotton sourced through the Better Cotton Initiative.

Considering the Technology and Meaning Innovation Matrix, H&M's innovation is a case of Market-Pull innovation. Therefore, it incrementally changes both the dimensions of analysis.

The introduction of organic cotton in H&M production represents the adoption of an already existing proto-institution in the fashion industry.

Micro-institutional change

Business Infrastructure:

- H&M represents the world's largest procurer of organic cotton. However, its clothes are still largely manufactured under dubious conditions in Bangladesh.
- H&M has involved farmers in its Better Cotton Initiative to provide them the tools and the right amount of knowledge in order to grow better cotton.

Customer Value:

- The totality of H&M product portfolio is either made up of organic, recycled or responsibly sourced cotton.

Customer Infrastructure:

- There is no process of knowledge building shared together with customers. Indeed, they receive a mere exposure of the company's sustainable process, but do not have a real active role in the shift.
- The company received some accuses of greenwashing along the years. Due to that, a sort of skepticism can arise when looking at the different initiatives towards sustainability.

Management Infrastructure:

- The company has set science-based targets aimed at reducing greenhouse gas emissions by 2030. They of course represent a positive progress, but they are only targets and some milestones need to be achieved.
- Operating under a fast fashion business model, H&M impact on the planet continues to be questionable.

With respect to the previously introduced Break, Make, Maintain perspective, H&M innovation focused on breaking the old supply chain, even if only for some parts of the business. Then, the company only maintained the previous institutions.

4.3.9. IKEA

Overview of the company

IKEA is a multinational company that designs and sells ready-to-assemble furniture, kitchen appliances and home accessories founded in the Swedish country in 1943.

The founder, Ingvar Kamprad, was only 17-years old when he opened this mail-order sales business, and he began to sell furniture five years later, in 1948. The name IKEA is an acronym that consists of the founder's initials (IK) plus the ones of Elmtaryd (E), the family farm where he was born, and the nearby village Agunnaryd (A).

The first store was opened in Almhult, Smaland, in 1958. Back to then, the name was Mobel-IKEA, "IKEA-Furniture" in English. Then, in 1963 and in 1969 two stores were opened outside Sweden, respectively in Norway and Denmark.

For the naming, IKEA uses a one-word, rarely two-words, system. Most of the names are Scandinavian, and since the founder Kamprad was dyslexic they are proper names and words, so that it was easier for him to remember them.

Ikea is mainly famous for its attention to cost control, operational details and continuous product development. Indeed, IKEA's prices are well-known as fair and low, and the variety of products offered has largely increased through the years.

Ready To Assemble represents one of the main revolutions introduced by IKEA, and it is still nowadays a must for the company.

IKEA's furniture is designed to be assembled by the customer rather than being sold pre-assembled. This has been implemented as it helps to reduce costs and the use of packaging by not shipping air. Moreover, transportation is also more practical as flat packs can be more easily carried.

To conclude the overview of the company, it is important to also analyse the MKC-SO framework that was introduced a few paragraphs before. With reference to the Market Knowledge Competence dimension, IKEA shows a high value. More in particular, the company can both generate and use information about customers and their needs for its own business. Then, it shows ability to also learn from other players in the market in order to develop further its strategies.

Sustainability Orientation

IKEA has identified three major challenges impacting its business: climate change, unsustainable consumption, and inequality (IKEA, n.d.).

Climate change is already visible and represents the biggest threat and challenge for humanity.

Unsustainable consumption regards the fact that worldwide production requires more than one planet, and the increasing number of consumers puts an even greater pressure on it.

Inequality represents a huge human issue as, every year, people tragically fall into poverty. There's a more than ever increasing level of inequality in the world both in gender than in rights and opportunities.

The answers IKEA is providing in order to respond to these challenges are three focus areas:

1. Providing a healthy and sustainable living: by 2030, the ambition is to inspire and enable 1 billion people to live a better everyday life within the limits of the planet. This is supported by the promotion of clean energy services, and the offer of plant-based and healthy food options.
2. Becoming circular and climate positive: the ambition is to reduce the climate footprint from IKEA retail operations and home deliveries, switching to renewable energy sources and using zero emissions vehicles. Circular economy is the means to use resources efficiently and to enable customers to reuse and repair products.
3. Ensuring a fair and equal business: people have always been at the heart of IKEA's business. Thus, human rights are respected and integrated in policies and processes, and the safety and wellbeing of the co-workers represents the top priority. The target is to create a positive impact for the neighborhoods in which the company operates, and to become a truly people-centred company and employer.

Among IKEA's sustainable initiatives, processes and promotions, its commitment in the responsible usage of wood represents an important pillar. IKEA is certified FSC, Forest Stewardship Council.

Since 2021, IKEA acquired more than 4000 hectares in Georgia from The Conservation Fund, a U.S. nonprofit organization that pursues environmental preservation and economic development. This was done in order to protect the land and its diverse ecosystems from development. As stated by the company, it supports the agreement "to protect the land from fragmentation, restore the longleaf pine forest, and safe-guard the habitat of the gopher tortoise".

This particular investment is part of IKEA's commitment to being climate positive.

In 2017, a team of French journalists made discoveries of 200-year-old trees being made into particle board in their sub-supplier Kronospan's factory in Sebeş, Romania. Kronospan delivers particle board to Ecolor, who produces, among other things, the Brimnes-shelf for IKEA. Mikhail Tarasov, IKEAs Global Forestry Manager answered in an interview that the only thing they ask their suppliers for is using particle board in their furniture. Questions regarding where IKEA sources their furniture and wood are considered classified.

Considering the previously introduced **MKC-SO framework**, the company has a low level of Sustainable Orientation. Indeed, the environmental interest shown is only related to a portion of the production, thus

involving also only a small part of the business model. In this way, this results in a short-term effect, which is not really leveraged by the firm.

More in details, analyzing the Advanced BMC the authors previously introduced, the following characteristics arise:

Business Infrastructure:

- Ikea's commitment to renewable energy is excellent, as it has 96 wind turbines and 82% of the heat energy used by the company comes from biomass.

Business Value:

- By analysing the totality of the products portfolio, it appears clearly that the company is only acting on some parts of it. Indeed, while the use of sustainable wood represents an important shift towards a sustainable furniture industry, the continuous use of plastic and the huge amount of paper in the packaging represents a big misalignment.

Customer Value:

- Overall, Ikea's commitment towards sustainability is positive and not misplaced, but since it is a giant, the company needs to ensure it is replicable and scalable in every part of the world.
- A lack of transparency over Ikea's supply chain and key activities demonstrates that, even if the company is trying to incorporate sustainability, it falls short in some areas.

Customer Infrastructure:

- Clients can find much information regarding IKEA's practices and activities through the disclosed sustainability reports the company is publishing regularly.
- Customers are informed, but they are not involved in Ikea's journey towards a more sustainable production business. There is no knowledge building process.
- Advertisements and claims tend to be tricky as they may hide some imperfections that the giant could have while dealing with sustainability on the different business areas.

Management Infrastructure

- Ikea has climate positive ambitions: it sources recycled materials and also produces its own renewable energy,
- The company's ambitions and desires to SDGs are clear, but there is no evidence of strategic initiatives that helps in supporting the journey to these goals. Thus, its approach seems to be performance-related and presents a short-term orientation.

The innovation: Sustainable Wood.

Since 2017, IKEA has been increasingly sourcing more sustainable wood from countries with a history of challenges related to forest management. In 2020, the company has reached the objective to secure the 100% of the wood comes from FSC-certified sources or is recycled (IKEA, n.d.).

With the goal of using only wood coming from sustainable sources, many IKEA's products already contain sustainable sourced wood.

Together with that, the company also commits to "make more from less", which is a part of IKEA culture. Indeed, each piece of wood is cut, shaped and thought in order to minimize unnecessary waste in production (IKEA, n.d.).

Sustainable wood products were introduced together with new techniques such as the thin layer one that requires less raw material and weights 20% less than solid wood. Thus, ancillary benefits of the innovation introduced can, for example, reduce emissions in transportations.

By considering Verganti's matrix about Innovation and Sustainability, IKEA's introduction of sustainable wood in furniture represents a Market-Pull innovation. Indeed, both meaning and technology keep fixed as they were before.

IKEA's innovation can be defined as the usage and adoption of an already existing proto-institution in the furniture sector.

Micro-institutional change

Business Infrastructure:

- By now, the introduction of sustainable wood collections does not represent a shift in Ikea's supply chain organization. Indeed, even if IKEA Forest Positive Agenda for 2030 has the objective to go beyond the mere wood sourced for its business and to expand its impact along the value chain, no real and concrete actions have been realized yet.
- IKEA is joining its forces together with the World Wide Fund for Nature (WWF) and Forest Stewardship Council (FSC) in order to fight for a responsible forest management (WWF, n.d.). The choice to go for big and relevant partners can be related to the willingness to leverage on those big names.

Customer Value:

- The company was in great difficulty when an investigation regarding its irresponsible use of wood came out publicly. Indeed, it was investigated as the wood used for some pieces of furniture seemed to come from the illegal deforestation of certified forests (Cain, 2022).

- Due to this, IKEA's efforts towards a responsible wood sourcing seem to be the natural reaction to the previous impeachment.

Customer Infrastructure:

- With this innovation, IKEA is promoting responsible forestry methods. The aim is to influence the rest of the industry, while in the meantime contributing to the end of deforestation. To do so, IKEA is leveraging a lot on the issue and advertising it quite good on the market.
- However, marketing moves and big slogans such as "Being forest positive" end up being misleading. Indeed, the company highlights its fully achievement towards the consumption of sustainable wood. Due to changes in suppliers/business partners, only the 98% of this amount is guaranteed.

The attempt to hide such information may affect customers' perception on the company.

Management Infrastructure:

- Despite of Ikea's positive attitude towards sustainability, the business is mainly carrying out incremental targets and actions. In particular, there are lots of "by 2030" and "by 2050" objectives, but quite a few milestones already achieved.
- The company's ambitions are valid and positive, but since it is a big and diversified multinational corporate it needs to strategically embed them into its strategic plans and practices.

With respect to the previously introduced Break, Make, Maintain perspective, IKEA represents a case focused on breaking the previous supply chain rules only partially. Indeed, the change is not spread along all the suppliers, and some misalignments are still present.

4.3.10. Carl Hansen & Søn

Overview of the company

"Timeless beauty, comfort, craftsmanship, and sustainability are so deeply ingrained in all our furniture works that only sight and touch are required to understand and fall in love with them." (Carl Hansen & Søn, n.d.)

Carl Hansen & Søn is a family Danish furniture business based on the island of Funen, located in the central part of Denmark. It was founded on October 28th, 1908 by a master cabinetmaker called Carl Hansen. In that year, he opened his first workshop in Odense, but his first real factory opened in 1915, specializing in bedroom furniture for the bourgeoisie and landed gentry.

Carl was not alone, and in 1934 his second-oldest son, Holger Hansen, took over the business after him. He set up a small-scale export of furniture to the near Sweden, and he supplied the American sewing machine manufacturer Singer in the production of some wooden cases. Thus, despite the global economic crisis of the 1930s, Hansen's business was not truly affected.

After World War II, many new Danish furniture designers entered the market, and through the help of Ejvind Kold Christensen – a salesman who went into collaboration with Hansen in those years – Carl Hansen & Son began to work together with some of them.

So, in 1949 the company together with Hans J. Wegner started not only to promote its furniture to retailers, but to also exhibit and advertise activity targeted on end consumers.

If till 1950 the production was mainly in the Danish area, in the early 1950s this particular furniture design also began to attract attention abroad. Thus, Carl Hansen & Søn established a joint sales company called Salesco, which was responsible for exhibitions and marketing abroad.

Since the third-generation has entered the family-owned business in 2002 with Knud Erik Hansen, Carl Hansen's grandson, the company has significantly expanded its international presence.

Taking into account the MKC-SO framework, Carl Hansen & Son positions itself on a medium-low level regarding Market Knowledge Competence. With regards to Customer Knowledge, the brand has shown the ability to understand their buying behaviors. Indeed, through the years it has presented different products. However, the style and the main characteristics of the brand haven't changed. On the other hand, competitors' knowledge is not so developed and explored. The company has little to no interest in copying others' strategies and keeps basically fixed on its own production scheme.

Sustainability Orientation

The company has a long-standing commitment for sustainable development. Along every step of the production process, the company is working to develop solutions that could protect the people and the planet (Carl Hansen & Søn, n.d.).

In the manufacturing plants and facilities, there's a continuous and deep interest towards healthy and to guarantee safe work conditions for craftspeople. Regarding production, materials are responsibly sourced and processed in a manner that protects both the company customers, team and the whole environment.

The three main highlights of sustainability regard the quality of wood, the usage of the leftover waste, and the importance of craftsmanship. Here below, explained more in details:

- Environmentally certified wood

The main material Carl Hansen & Søn works is wood. Regarding this, the company purchases it from responsibly managed forests since many years.

As of today, more than 75 design icons are available in FSC-certified wood (FSC-C135991). By sourcing this type of wood, the company ensures that forests are harvested in the most responsible way, and that in the meantime other plants and animals are protected. Lastly, Carl Hansen & Søn also protects the people working in and living off the land. Thus, "crafting quality design that lasts for generations, made from sustainably sourced wood" is the brand's commitment to the future of the planet.

By now, up to 90% of the wood used in Carl Hansen & Søn's products is FSC-Certified. The remainder 10%, however, derives from non-certified sustainable forestry.

- Avoid leftover waste

Nearly the whole wood resource is used, but a residual amount is inevitable. The biggest pieces are crafted into wooden pieces that can be cutting boards or other home accessories. On the other hand, even the little scrap and the sawdust that remains at the end of the working process is used as fuel in a distinct heating plant that provides warmth to more than 400 local homes in Gelsted, Denmark. In this creative way, the whole production value chain becomes more sustainable and responsible.

- Investing in the future of craftsmanship

In Carl Hansen & Søn craftsmanship is preserved, supported and nurtured. Indeed, high quality furniture depend on the passion and dedication of skilled craftspeople.

Since 1908, lots of apprentices have started their careers in Carl Hansen & Søn workshop. Still nowadays, the role of these workers continues to be an essential part of the traditional craftsmanship. Indeed, the

company promotes that through investing in the young apprentices of today it is possible to ensure the legacy of Danish design in the future. (Carl Hansen & Søn, n.d.)

In 2019 the brand introduced The Lab, a guided program to supplement the time apprentices spend in learning on the production floor. With the guide of a mentor, they have the opportunity to learn at a slower and less production-focused pace. The focus of this initiative is not only to preserve design icons, but also to invest in the future of quality craftsmanship.

In Carl Hansen & Søn there's a deep stress on making things that last by using the best materials and craftsmanship in everything they produce. This is the best strategy for sustainable living. In order to encourage this, the company provides highly skilled, in-house repair and refurbishment services, that makes it possible even for the most well-won and well-loved piece of furniture to be restored.

Referring to the **MKC-SO Framework** that has been introduced in one of the previous chapters, this company clearly shows a high level of SO. In particular, exactly as the dimension is defined, the company shows an overall "integration of environmental concerns and practices into their strategic, tactical and operational activities" (Roxas and Coetzer, 2012).

More in details, by going through the Advanced BMC previously introduced, these characteristics can be derived:

Business Infrastructure:

- The company has made lots of investments in the most modern and energy efficient equipment.
- In the manufacturing facilities, the company works continuously to ensure healthy and safe work conditions for its dedicated craftspeople.

Customer Value:

- Overall, Carl Hansen & Søn's sustainability-related practices are embedded in the totality of the products of the company.

Customer Infrastructure:

- Customers have lots of disclosed reports and information to look at in order to know more regarding the long-term commitment towards sustainability that the company has demonstrated.
- Even if customers are only involved in the passive phase of purchasing, they can also have an active role. Indeed, the company has also given the possibility to repair and renew old piece of design, thus making the lifecycle of each object longer.

Management Infrastructure:

- The intensity and the amount of investments made towards new technologies in the direction of sustainability prove the concrete commitment of the company towards a more sustainable future.

The innovation: Sustainable Wood

Carl Hansen & Søn started producing iconic design using responsibly harvested wood. The company is currently on a journey towards environmentally certified wood. Indeed, newly launched designs are always crafted in FSC-certified wood, whether the company commits to using only environmentally certified wood by 2025 (Carl Hansen & Søn, n.d.).

Wood is purchased from responsibly managed forests with which the company has long-established relationships. By sourcing FSC-certified wood, the company ensures forests are responsibly harvested. In the meantime, the company also aims at protecting other plants, animals of the forests and the people working in and living off the land.

Wood, being a precious natural resource, is used to its fullest, in every single piece and little scrap. First of all, wood is crafted into iconic furniture designs. Everything leftover is crafter as possible: larger pieces of residue wood are crafted into smaller wooden pieces such as cutting boards and other home accessories, while sawdust and is given to a district heating plant in charge of providing heating to the company's production facilities.

By considering Verganti's model, Carl Hansen & Søn's innovation can be considered as a Technology-Pushed one. Indeed, while the meaning remains the same, the technology used changes radically.

Carl Hansen & Søn's innovation represents the introduction of a proto-institution in the furniture sector.

Micro-institutional change

Business Infrastructure:

- Long term and established relationships with suppliers characterize Carl Hansen & Son business.
- The company uses responsibly-sourced materials and processes.
- Along the supply chain, each part of the raw material is used. Indeed, even the little scrap that remains is repurposed as fuel in a district heating plant.

Customer Value:

- Overall, the brand's approach towards this innovation is quite wide: since it has been introduced, every new design piece has been mate of responsible-sourced wood.

Customer Infrastructure:

- The company manages The Lab, a mentor-guided program intended to give apprentices more time to learn at a slower and less production-focused pace. Indeed, Carl Hansen & Son believes investing in the young apprentices of today is the best way to ensure the legacy of Danish craftsmanship throughout the future.

Management Infrastructure:

- The company's commitment for the future of the planet is crafting quality design that lasts for generations, made from sustainably sourced wood. This mission shows a long-term commitment and interest.

With respect to the previously introduced Break, Make, Maintain perspective, the company here described stressed on making new relationships with employees. Indeed, they do not represent anymore only craftsmen, but they are tradition, values, and history. The company focuses on creating long-term links with them, and on protecting them as much as possible.

4.3.11. Save the Duck

Overview of the company

Save the Duck (STD) is an Italian brand born in 2012 thanks to Nicolas Bargi. The mission, since the beginning, was to create a product in the respect of animals, the environment and people.

The logo sums up its environmental commitment: a singing goose, happy not to have lost her feathers (Save The Duck, n.d.).

Save The Duck's revolution is PlumTech technology, a thermoisalent wadding that can be replaced to usual goose plumage. In addition to this, some capsule collections have been produced using plastic collected from the ocean and then recycled. Then in the last years the company introduced Nylon 6 polymer, made according to the rules of the circular economy. In particular, it means that, once the end of the product's life is reached, it can be recycled (Save The Duck, n.d.).

All the materials are 100% biodegradable: if buried, they fade in 4 years. In particular, they can become mechanical gas, that is a natural gas, and do not leave any trace.

Nicolas' family has been involved in the clothing sector before him. Indeed, Foresto Bargi, Nicolas' grandfather, had invented Forest back in 1914, a small craftsman's lab that became a huge clothing industry specialized in waterproof jackets. His son, Cirano, then followed him with an even more brilliant intuition: in the 60s, he starting to produce clothes inspired to the style of American blue collars. However, from 2008 and 2011, together with the majority of Italy, Forest lived an economic and productive crisis. It is exactly in this situation that Nicolas, the youngest of the family, decided to set new rules and to reinvest for a brand-new Forest: Save the Duck.

The new rules were: specialization in the proposal and in the product, strong rigidity in the credit assignment, marketing strategy precisely defined with the commercial side (Save The Duck, n.d.).

Save The Duck' secret, however, is represented by the fact that in 2011, Nicolas Bargi was a sort of pioneer of the cultural revolution of "Loving the Planet", as he stated.

Even if the Made in Italy constitutes an important value for the brand, the CEO has decided to keep in Italy the project and the study on the textiles and to outsource to China the production phase. The decision comes from the idea that the quality/price factor is unbeatable, and that the production lines are working so much better than the ones in Italy.

Currently, the company is looking for expanding abroad, out of Europe. Indeed, STD is already present and robust in countries like Germany or the UK, and more than 50% goes into export, but continents out of Europe have not been touched.

Save The Duck was the first Italian company to receive the B-Corp certification from the USA B Lab. Being a benefit corporation means to protect and pursue with the same attention both economic and social/environmental objectives.

With reference to the previously introduced framework MKC-SO, it is crucial to consider the vertical dimension of the Market Knowledge Competence. The company positions itself on a medium-high level of the dimension.

The company has a good customer knowledge, as it has been able to focus on what customers really wanted in order to then produce that, so that only some key clothing apparels are produced. Then, the brand has also shown a quite strong competitors' knowledge. Regarding this, Save The Duck has been able to keep up to date in relation to other players on the market.

Sustainability Orientation

At Save The Duck, taking care of the environment and all the inhabitants is a mission, and it is sustained by the promotion of a transparent business model that manages natural resources responsibly (Save The Duck, n.d.).

STD is actively participating into 1% For The Planet, which means that it is donating 1% of the yearly turnover to companies that take care of the planet. In 2019, right after receiving the B Corp certificate, Save The Duck has committed for carbon neutrality by 2030. this objective, however, was gained in 2021, as the emissions were all compensated.

In 2019, STD has been selected as the Company of the year by People for Ethical Treatment of Animals (Peta).

In STD's Sustainability Plan, the company has set targets and goals in order to protect nature and to support people's rights. The main pillars of action are:

1. RESPECTING ANIMALS

- The company only sells 100% animal cruelty free products
- Standing-up for animal rights
- Contribute to animal protection

2. LOVING NATURE

- Taking action for Climate
- Preserving the ecosystems
- Enhancing circular thinking along the products lifecycle
- Working for a sustainable store concept

3. CARING FOR PEOPLE

- Promote inclusiveness at work
- Foster the respect for human rights
- Support communities

As expressed in the Sustainability Plan, and as it also emerges in the Sustainability Report, STD uses an open dialogue and transparent communication with the stakeholders while sharing its impact. In this way, the aim is to raise consumer awareness on sustainability and to increase the traceability and transparency in the Supply Chain (Save The Duck, 2021).

With reference to the MKC-SO Framework that has been previously introduced, this company is considered as having a high level of SO. Indeed, its business activities investigated in the section are all sustainability oriented, and the value of sustainability is embedded in the organizational culture.

More in detail, by considering the four dimensions of analysis connected to the Advanced BMC introduced some paragraphs before:

Business Infrastructure:

- Save The Duck is working everyday in order to build with its suppliers long-term relations based on mutual trust and transparency. Indeed, plans and targets for a responsible supply chain have been introduced along the years.
- The relationship with employees is based on mutual trust and transparency in order to foster them to fulfill their potential. Their involvement is continuously strengthened through targeted trainings and initiatives.

Customer Value:

- The company is delivering sustainability reports since 2016, thus delivering a high level of disclosure and transparency on its whole business.
- Carbon neutrality in Save The Duck operations has been achieved in 2021.
- The totality of the company's product portfolio is characterized by and aligned with Save The Duck's mission.

Customer Infrastructure:

- Customers can access a large amount of sources, information and disclosed reports in order to get to know what the company is doing for sustainability.
- There is a process of knowledge sharing oriented towards its mission: "taking care of the environment and all its inhabitants." (Save the duck, n.d.)

Management Infrastructure:

- The company commits to protect and respect people, and to safeguard animals in order to make the Planet a better place for everyone. Its mission is 100% aligned with a high sustainable orientation.
- Being a B-Corp, the company has a shared concept of Interdependence that wants to continuously invest on in order to inspire all stakeholders and partners to preserve the Planet.

The innovation: PLUMTECH

Save the Duck introduced PLUMTECH as a brand-new unique alternative to real goose down. Indeed, this material does not employ products of animal origin – down feathers – while it imitates the fluffiness of down. Together with this, another collection called Recycled PLUMTECH was developed thanks to the use of textile recycled from plastic bottles (Save The Duck, n.d.).

Considering Verganti's matrix previously introduced, this innovation represents a Technology-Push one. Indeed, while the meaning is basically fixed as the jacket remains a jacket, the technology used is radically changed.

The company's innovation, PLUMTECH, consists in the creation of a proto-institution in the fashion market. It allows to produce garments with limited encumbrance.

Along the years, the company has signed contracts with PETA, People for Ethical Treatment of Animals, and with LAV, Lega Anti Vivisezione, in order to guarantee 100% animal-free products. Then, the agreement with WWF certifies the respect for working rights and eco sustainable processes.

Being a B Corp, and even more in details, being the first benefit corporation in Italy, certifies its commitment towards sustainability. Being so, STD gives the same weight to both economic-financial objectives and to social-environmental ones.

The B-Corp community groups all the companies that commit their businesses to make it able to impact positively also on the society. "Business can be oriented both towards people and planet welfare than to profit." Nathan Gilbert, executive director B Lab Europe.

Micro-institutional change

Business Infrastructure

- Save the Duck suppliers are asked to sign the Restricted Substances List (RSL) in order to become an active part of the journey towards a responsible use of chemicals in the company's supply chain (Save The Duck, 2021).

- Regarding the different scopes and goals the company has set, both suppliers and employees are involved and educated in order to raise their awareness towards particular and crucial issues.
- Through “We Care For People” initiative and slogan, Save The Duck recognizes the centrality of its value chain people. Indeed, it is showing a growing commitment to promote employees education and awareness towards environmental issues through various initiatives.

Customer Value

- Overall, Save The Duck’s PLUMTECH was introduced in every product of the line in which dawn was needed. Therefore, the approach is coherent.

Customer Infrastructure

- When dealing with Save the Duck, customers deal with a transparent business model. Thus, clients are informed and literally taught about possible alternatives towards a sustainable future.

Management Infrastructure

- Being Save the Duck born oriented towards sustainability and respect for the environment, its commitment appears clear and integrated in every actions/products/projects.
- Investments towards new technologies, life-cycle studies supported by science and innovative useful solutions can concretely witness the brand’s long-term view towards a responsible environmental approach and management.

With respect to the previously introduced Break, Make, Maintain perspective, the here described innovation was focused on breaking the old supply chain structure and rules. Therefore, new certifications and logics were applied to suppliers and materials providers. Then, the company also makes a new relationship with customers, which is based on knowledge building more than just on knowledge sharing as before.

4.3.12. Moncler

Overview of the company

Moncler is a French luxury fashion brand founded in 1952 by René Ramillon and André Vincent.

The name derives from the abbreviation of Monestier-de-Clermont, which is the Alpine town near Grenoble (France) in which it was first produced. The first jackets were thought to be useful to protect workers from the cold, as they used them on top of their overalls and garments in the establishment in the mountains. The main focus at that time was on sports clothing for the mountains.

Since the early beginning, the potential of the brand was recognized by many mountaineers such as Lionel Terray, who climbed the Himalaya in 1955 and the Cerro Fitz Roy soon after.

In 1954, Moncler's quilted jackets were selected to equip the Italian expedition to K2, famous as it was the first time in which people were able to reach the summit. In the following years, the brand was also worn on the French expedition on the Makalu (8,485 meters high) and became the official supplier of the whole equipment for the French national downhill skiing team during the Grenoble Winter Olympics in 1968.

In 1980s, Moncler enters the city becoming a City Icon. Indeed, under the direction of the stylist Chantal Thomass, iconic Moncler jacket became the garment of a generation of youth.

Currently, the brand is owned by Remo Ruffini, an Italian entrepreneur who bought it in 2003 when it was very near-bankruptcy. He invested in the Group, by starting a process of repositioning of the Brand in order to evolve from a line of products used purely for sports purposes to versatile lines that could be worn wherever and on any occasion, by any gender, age identity and culture.

The strategy Ruffini implemented was aimed at globally expanding the brand in the luxury good segment. Thus, the motto of the brand became "Born in the mountains, living in the city" (Moncler, 2021) as – at the end – the company itself did in its story.

In 2013, Moncler has been listed on the Milan Stock Exchange. Shares were offered at EUR 10.2 and rose over 40% the first day.

The distinctive features of the brand have been tradition, uniqueness, a high quality and consistency, and all of them have remained consistent and fixed as the brand DNA and heritage while it has evolved in a continuous search for an open dialogue with the different consumers in the world.

From this constant research, in 2018 a new project was developed: Moncler Genius – One House, Different Voices. In particular, it consists in a hub for creative minds, that could be able to reinterpret the brand by

introducing a new way of doing business and always – of course – being consistent with its history and backbone.

The last updated news regarding the Group is represented by the acquisition of the Italian luxury sportswear brand Stone Island for €1.15 billion.

“Moncler is 1952, Moncler is mountains, Moncler means something sport and active.” Remo Ruffini, chairman and creative director of The Moncler Group.

Taking into account the so-called MKC-SO Framework introduced in the thesis slightly before, for Moncler the dimension of Market Knowledge Competence is medium. This conclusion is derived from the fact that, if the knowledge of customers is highly developed, the one referred to competitors is not so much leveraged. Indeed, the company – as others fashion industries – can address its customers’ buying tastes and behaviours very well. However, on the other hand, it is not so willing to acquire competitors’ new strategies in order to shift and improve its one.

Sustainability Orientation

In 2021, the brand has published the 2020-2025 Strategic Sustainability Plan with all the targets towards environmental and social responsibility as integral parts of the business model (Moncler, 2021).

The plan mainly focuses on five priorities: climate change, circular economy, responsible sourcing, valuing diversity and support for local communities.

In the development of the strategic drivers and the Plan’s commitments, the brand also took into account the priorities set in the 2030 Agenda for Sustainable Development (SDGs). In particular, out of the 17 macro-objectives in the SDGs, the Group directly contributes to eleven of them.

Here the details on the five categories and the different missions associated to them. Each of them, then, is also divided in some smaller targets:

1. ACT ON CLIMATE CHANGE
 - Reduce CO₂ emissions [sdg 7; 13]
 - Safeguard biodiversity [sdg 6; 12; 14; 15]
2. THINK CIRCULAR & BOLD
 - Use low-environmental impact materials [sdg 12]
 - Extend products life [sdg 12]
 - Adopt low impact packaging [sdg 14]
 - Spread a sustainability culture

3. BE FAIR

- Strengthen traceability systems of raw materials [sdg 12]
- Promote a fair and safe workplace [sdg 8]

4. NURTURE UNIQUENESS

- Promote an inclusive culture through training [sdg 4; 5]
- Ensure representation [sdg 4; 5]
- Create a system of procedures and policies to support diversity, equity & inclusion (de&i)
- Value people [sdg 3]
- Promote new ways of working

5. GIVE BACK

- Protect people from the cold
- Create shared value [sdg 11]

By 2021, Moncler has already reached some results both in the environmental and in the social responsibility area. In particular, the brand was for the third year in a row recognized in the Dow Jones Sustainability World and Europe indices as having the first place.

Regarding sustainability, the main targets reached are:

- around 30% of Moncler Genius 2021 outerwear has been entirely made of lower environmental impact fabrics
- carbon neutrality reached at own corporate sites worldwide
- 80% of electricity consumption at own corporate sites comes from renewable sources, the 100%
- 90% single-use virgin plastic eliminated
- 100% of Moncler's packaging for end clients made of lower impact materials

Then, in the social responsibility area:

- 2600 employees involved in volunteering activities
- 3.6 M€ invested to support the community
- 52% of women in management positions

Even if many objectives have already been reached, Moncler itself recognize that sustainability is not a destination, but a process of continuous improvement.

Considering the **MKC-SO Framework**, the company here described presents a low SO level. In particular, there is no integration between any environment or sustainability interest and any business action. By analysing the business model, there is a clear understanding of how the activities are not related.

Thus, the following overview of the Advanced BMC previously introduced by the authors is given:

Business Infrastructure:

- Together with the delivery of a Strategic Sustainability Plan, the company has decided to strongly commit to respect and protect the environment. Thus, the brand has introduced new resources such as recycled nylon and polyester, organic cotton.
- Raw materials are selected depending on specific sustainability standards. In particular, wool and goose down need to be certified in line with the guidelines the company defined in its plan.

Customer Value:

- Looking at a business model level, sustainability orientation is not entirely embedded and spread over the different areas and functions.

Customer Infrastructure:

- Communication and marketing levers are leading to a quite misleading view over Moncler's commitment towards sustainability. Indeed, the company is incrementally introducing sustainable practices in its business, while advertising means do not focus on this.
- Clients are passively involved in the shift towards sustainability, as no initiative requiring and stimulating proactivity has been launched. In addition, not a huge amount of information are disclosed.

Management Infrastructure:

- The brand mission is to protect from the cold. Along the years, Moncler has evolved it into a commitment to protect people and the planet while in the meantime acknowledging there is still a long way to go. However, the company shows a performance-related business, more focused on short-term practices and collections.

The innovation: Born To Protect

In line with its Strategic Sustainability Plan, Moncler has produced a selection of sustainable jackets: Moncler Born to Protect collection (Moncler, 2021).

For this line, textiles, zips and accessories are realized in ECONYL, a regenerated nylon derived from scrapped materials that have been retrieved both from oceans and from the living land. Their usage in textiles has ensured a CO₂ emission reduction of the 40% with respect to the traditional nylon jackets (Moncler, 2022).

Moncler first collection was introduced in 2021, and it was followed by a second launch in 2022. In this last capsule, the brand has also included clothing and accessories for Men, Women and Enfants.

Moncler's Born to Protect collection could be considered a Market-Pull innovation in Verganti's Technology and Meaning Innovation matrix. Indeed, the introduction of regenerated nylon and fibers in fashion does not represent a novelty and unique method.

Born to Protect collection represents the adoption of an already existing proto-institution in the fashion industry.

Micro-institutional change

Business Infrastructure:

- The collection is part of a wider strategic plan oriented towards sustainability. However, apart targets and long-term objectives, there is no clear redirection of the supply chain towards a more sustainable orientation.
- Moncler has introduced a responsible sourcing program that is still in progress and aims at conducting audits and analysis on suppliers in order to be able to guarantee a responsible supply chain management.
- Employees have been engaged in a cultural awareness plan that will last three years (Moncler, 2022).

Customer Value:

- The brand mission is to protect from the cold. Along the years, Moncler has evolved it into a commitment to protect people and the planet, and this particular collection is a proof of its commitment.

Customer Infrastructure:

- A visual campaign has been developed in order to accompany the new collection together with its manifesto: "Moncler Born To Protect. Our promise to tomorrow starts today, with a clear commitment to create a better future and protect people and the planet.". If related to whole Moncler business model, the advertisement ends up being misleading and exaggerated with respect to the real and concrete operations of the company (Moncler, 2021).
- End-customers are mainly and exclusively involved in the purchasing phase of the project. They have little to no disclosure regarding the reasons behind the introduction of the collection or regarding the new methods introduced.

Management Infrastructure:

- Being Moncler Born to Protect limited to only two collections, the program does not really match a large and long-term vision over sustainability issues. Moreover, these capsules are only made up of a few products, thus increasing the impression that the innovation is limited to a performance-related vision.

With respect to the previously introduced Break, Make, Maintain perspective, the authors define this innovation having a focus on maintaining the previous relationship with clients. Indeed, the company doesn't build a new knowledge in order to change the perspective of end customers.

4.3.13. The North Face

Overview of the company

The North Face (TNF) is an American outdoor recreation products company. It mainly produces outdoor clothing and footwear, together with the related accessories and equipment.

It was founded in 1968 by Douglas Tompkins and his wife, Susie. Doug was a young climber, and he used his savings to start a revolution: a humble shop in San Francisco became a cultural trading post where the Beat Generation shared new ideas and where American climbers stopped in after traversing Yosemite.

At first, it was a climbing equipment retail store, as it supplied climbers with all the necessary for their activities.

"The North Face has equipped explorers since 1966 to reach their dreams." (The North Face, n.d.)

The logo itself draws inspiration from Half Dome in Yosemite National Park, which is a granite dome at its eastern part, very well-known for its distinct shape.

In 1969, backpacking was born. It was developed as a practical solution for bulky gear, and it was one of the first internal frame packs ever created. This invention revolutionized hiking by making it accessible to all.

In 1972, The North Face sponsored the first expedition, a 30-day 300-mile crossing of the Koyoukuk and Itkillik Rivers, in Alaska, led by the adventurer Ned Gillette.

GORE-TEX - the first dry, breathable and truly all-condition gear - was introduced in TNF outerwear line in 1977 as a particular collection able to keep skiers warm even in the harshest conditions.

By 1990, the brand started to expand its production beyond only outdoor enthusiasts, and it focused on street couture too. Indeed, in those years the brand's attire purchasers were not only the one looking for technical clothing for skiing, climbing and other outdoor pursuits but also rappers in NYC. Since the 2000s, it is recognized as a streetwear style symbol label (The North Face, n.d.).

The North Face is currently owned by VF Corporation – an American global apparel and footwear – that bought it in 2000. The deal worth US\$ 25.4 M.

The mantra of the brand is "Never Stop Exploring", and it acts as an invitation for everyone of all ages to get outdoors and explore the natural world and share it with future generations.

Since day one, the brand committed to do business differently. All the production choices have been aimed at protecting the places around and at preserving wilderness.

To conclude the general overview of the company, having a look on the vertical dimension of the MKC-SO Framework, Market Knowledge Competence, is crucial. The North Face is considered having a medium-high level of MKC. Indeed, both its customers' and competitors' knowledge are quite developed. The brand has been producing and selling different lines and collections to adapt to what the market was showing to need, and it has been able to react to trends. However, the mission towards sustainable and responsible production has been the main focus, thus giving production processes a clear direction.

Sustainability Orientation

Since the beginning, The North Face has committed to creating the best products possible while in the meantime working to leave the earth better for future generations.

"Sustainable from start to finish", as stated on the website, means the company has created concretely actionable commitments to keep on the path of sustainability from the start to the end, through the different phases of production, selling and purchasing (The North Face, n.d.).

In particular, The North Face created four commitments:

1. **Scale Circularity:** by using more sustainable materials in the creation of products, the brand is trying to avoid the huge number of textiles that on average is burned or landfilled. The goal would be to develop circular systems able to recycle previously-owned gear and reuse the raw materials in order to completely keeping them out of waste streams. The three specific programs related to this are Limited Lifetime Warranty program, the Renewed Collection, and the Close the Loop program.
2. **100% Responsibly-sourced apparel fabrics by 2025:** the goal is to ensure all products are made with recycled, regenerative or responsibly-sourced renewable fabrics. These last derive from materials that will replenish over the course of a lifetime, which will not impact the ecosystem at all. By now, The North Face is on track to hit the goal with apparel in 2025, and with footwear and equipment by 2030.
3. **Work in tandem with suppliers and retailers:** the brand is committed to extend its mission along the value chain, to both suppliers and retailers, in order to reduce the environmental footprint even more. In this way, the efforts will have positive impacts on the whole industry.
4. **Accelerate sustainable packaging:** the goal is to eliminate the use of single-use plastic in packaging by 2025. In the meantime, new and more recyclable packaging is being studying and developed. By now, the brand only uses recycled content or third-party certified content for all paper materials (e.g. carboards, flyers)

The North Face program conceives both environmental and social sustainability missions and commitments.

Regarding the environment, in 1989 the company co-founds The Conservation Alliance with REI, Patagonia and Kelty. By doing this, the group decided to distribute its collective annual membership dues to grassroots organizations that are working to protect North America's last wild places.

Starting from 2013, the brand then introduced Clothes the Loop, a program that allowed consumers to drop off clothing and footwear from any brand, in any condition and at any retail store. In this way, a new path for sustainability and circularity was opened as a new commitment to reduce the environmental impact of TNF products.

The North Face Renewed was created in 2018 in order to develop a program to renew, refurbish and recycle what previously worn, returned, damaged or defective. It is inspected, washed and tuned up so that it is ready for a next adventure.

The brand has also developed a specific badge, "Exploration Without Compromise", to make it easier to spot its most sustainable products. The certification only addresses apparel, equipment and accessories with 75% or greater recycled, regenerative and/or responsibly-sourced renewable materials.

On the other hand, on social and people support, the brand launched the Explore Fund during the 2010 Outdoor Nation Youth Summit hold in NYC. With this grand-giving program (initial base of \$250,000 then increased), the money supported nonprofit organizations seeking to create a deeper connection between people and nature.

With the motto "Walls are meant for climbing", The North Face started a campaign in 2017 as a global movement to bring people together through the power and community of climbing.

In 2021 the Explore Fund Council has been introduced. It is a community of experts from different cultures and ages, who commit to find creative solutions to celebrate all the ways humans explore. The Council tries to remove barriers so everyone can really get outside and benefit from the experience.

Day by day, the brand continues to inspire people to explore, to live, and to challenge themselves, as the following quotes witness:

"By making things a lot lighter and more functional, we were freeing people up to go much farther.", said by Jack Gilbert, VP of Sales and Marketing, 1968 – 1988.

"What exploration offers is a vehicle for personal transformation.", Conrad Anker, Team Athlete

With reference to the **MKC-SO Framework** introduced in one of the previous chapters, the company in analysis is considered having a medium-low SO level. Thus, at a first glance practices seemed to be environmentally focused but, by investigating deeply on the company's business model, social and environmental concerns resulted not truly integrated into activities and programs.

More in details, the following analysis of the Advanced Business Model Canvas gives a broad overview of the different areas of the business:

Business Infrastructure:

- The North Face raw materials are not completely vegetarian and animal-free, but all of them are sustainable and ethically produced. The company uses down certified by the Responsible Down Standard. Then, it does not use fur, exotic animal skin, exotic animal hair or angora.
- The company traces most of its products since the very first stage of production. However, not the total value chain is under tracking and not all the details are disclosed.

Customer Value:

- Overall, The North Face's whole portfolio is oriented to sustainability. Indeed, responsible production characterizes the company's processes and methods.

Customer Infrastructure:

- Customers are of great importance for the company. Indeed, even in its mission, the focus on inspiring a global movement of exploration is clear.
- Through events, initiatives and programs, mainly concentrated on sports, the company aims at sharing knowledge with end-customers. However, their active role is not well defined.

Management Infrastructure:

- The company's mission, aimed at offering the best possible gear while supporting the preservation of the planet, shows a core commitment towards sustainability. Indeed, this is not only embedded in some areas, but the whole company shares a long-term interest towards it.

The innovation: Clothes The Loop

The North Face launched Clothes the Loop program with the aim of encouraging people to drop off clothing and footwear they do not want anymore. The apparel can be dropped at The North Face Retail and at some Outlet Stores (The North Face, n.d.).

In exchange, clients will receive a \$10 reward toward their next purchase at TNF.

As a matter of fact, there's no real possibility to make people stop outgrowing their clothes, wearing through them or deciding that it is time for something new. However, there is the opportunity to actively participate to ensure that worn clothes do not end up in landfills.

For this reason, TNF introduced this initiative in collaboration with a non-profit partner, Soles4Souls. This organization focuses on the idea of creating sustainable jobs and providing relief through distributing shoes and clothing. Thus, the items placed into The North Face bins are repurposed for programs that can provide business opportunities.

The program introduced comes from the company's commitment to reduce the environmental impact of products throughout all stages of their life cycle, from the beginning to the last phases related to extension of the life cycle.

The program has a very simple and smooth structure. Users can collect their used apparel and footwear at the participating The North Face retail stores. They can be of any type, from any brand and in any condition. Items can be dropped in the predefined bins, and users can earn a reward in exchange. They will be able to use it towards the purchase of a TNF item.

Items collected can reduce apparel and footwear waste, and can help Soles4Souls – TNF strategic partner – to empower people across the world to stand out of poverty (The North Face, n.d.).

The project was first introduced in the USA. Then, in order to broaden its impact, it was expanded to TNF Retail stores in Germany and Canada.

By taking into account Verganti's Technology and Innovation matrix, The North Face's Clothes the Loop is a Market-Pull one. It represents a radical change both regarding meaning and technology. Indeed, no unique or brand-new technology have been introduced, nor a new meaning regarding clothes has been given.

More in particular, The North Face adopted an already existing proto-institution in the fashion market.

Micro-institutional change

Business Infrastructure:

- The company that receives TNF's is a non-profit that will take care of the whole procedure. All the details and information regarding the procedures are disclosed.

Customer Value

- The company only acts as the sponsor for the collection of clothing. It has no real effect apart from supporting and advertising the activity.
- Other parts of the business model are not truly aligned to the innovation pursue.

Customer Infrastructure

- Customers are actively involved in the process, as they are the ones who can really act and make the change.
- Communication and marketing are quite ambitious with regards to the real effect of the innovation.

Management Infrastructure

- The brand's mission has remained unchanged since 1966: "Provide the best gear for our athletes and the modern-day explorer, support the preservation of the outdoors, and inspire a global

movement of exploration". Thus, the innovation is aligned with the long-term vision of the company and is not only related to a single performance.

- Even if the company shows a long-term orientation towards sustainability, the innovation does not really seem to be focused on the whole process.

With respect to the previously introduced Break, Make, Maintain perspective, the innovation was mainly focused on making new knowledge available to end-customers. The company indeed committed to make such issues and topics tangible to clients. However, the company doesn't break old rules or proposition in alignment with this.

4.3.14. ZARA

Overview the company

Zara is the world's largest apparel retailer, based in Arteixo, A Coruña, Galicia, Spain.

It is part of the Inditex group, a Spanish multinational clothing company which represents the biggest fast fashion group in the world. Zara is the biggest company in the group together with Bershka. Its production is of 450 million items per year.

Its main specialization is fast fashion, and it produces clothing, accessories, shoes and beauty, both for men and women. In addition, Zara Home offers a wide collection of home objects and clothing. As of 2020, the brand was able to manage more than 20 different clothing collections a year.

It was founded by Amancio Ortega, the founder and former chairman of the Inditex group, in 1975. The first store was opened in A Coruña, Galicia, where the company is currently still based. The city was very well-known for its textile industry.

The first name was Zorba, after the classic film Zorba the Greek came out in 1964. However, after getting to know there was a bar nearby which was called in the same way, the name became "Zara". The store started to feature low-priced products which looked like the ones of popular and higher-end clothing fashions.

Since the beginning, Ortega tried to control and to manage in the best way the distribution process and the design of the company in order to reduce lead times and to be able to react to new trends as quicker as possible. He called these trends "instant fashions".

Starting from 1988, Zara entered first Portugal, then the United States, Mexico, Sweden, until reaching Asia in 2002 with Japan and Singapore. In 2010 the online shop was launched.

The brand was ranked at the 30th place on Interbrand's list of best global brands in 2015. In 2019 the Global Fashion Business Journal MDS published that, while the textile commerce of the world had gone down by 2.38%, Zara's one had increased by 2.17%.

Covid-19 forced the company to cut the number of retail locations. However, it is still profitable and still represents, with no rivals, the largest apparel company.

Zara implemented since the earlier 1990s the just-in-time (JIT) system, designed by Toyota Motor Corporation. The approach enabled the company to establish a business model that allows self-containment along all the stages of materials, manufacture, product completion and distribution to the different stores worldwide within just a few days. This decision made the whole business more efficient.

Being a fast fashion retailer, Zara needs just one week to develop and to get to stores a new collection. On average, industries need six-months.

The company can design a completely new product and have finished goods in stores in four-five weeks. The ability to shorten the product life cycle means a greater success in meeting the preferences coming from the market. Indeed, if a piece is not well sold within a week, it is withdrawn, further orders are deleted, and a new design is pursued.

The usual process starts with the designing of products, and then it takes 10-15 days to reach the stores. All the clothing is processed through the distribution center placed in Spain, where new items are first inspected then sorted, tagged and loaded into trucks. The delivery of the clothing usually takes 48 hours.

The majority of Zara customers are aged in a range between 18 and 35, as the brand offers a wide variety of clothing and accessories.

Considering the **MKC-SO framework** previously introduced and focusing in particular on the dimension of Market Knowledge Competence, Zara, as described in this paragraph, shows a high level of MKC.

Indeed, both the directions that constitute it are highly explored. In particular, the brand has a high customer knowledge being a fast-fashion and highly changing business. Indeed, it produces around 20 collections per year. Then, it also has a good competitor knowledge since the collection the company produces are usually developed following the trend of competitors.

Sustainability Orientation

"At Zara, we are continuously working to make our business more sustainable. Ever since we signed the United Nations (UN) global compact and implemented our first code of conduct in 2001, our social and environmental objectives have become more ambitious. We have developed a roadmap with a holistic approach that incorporates both people-centred challenges and planet-centred ones." (Zara, n.d.)

Zara is working to reduce its impact and to integrate sustainability in its daily decision-making.

In this sense, the entire value chain is considered: starting from product design, materials selection, production processes, to logistics and management of the warehouses. In addition, the brand is also developing reuse and recycling programmes that will promote circular economy with the aim of reduce waste and cut down the consumption of new virgin raw materials.

The brand is working vertically, with suppliers and organizations, as the big challenge of fulfilling sustainability commitments and to bring a real change could not be achieved alone.

Zara has published its commitments for the years 2022, 2023, 2025 and 2040 (Zara, 2021).

In detail:

2022:

- 50% Join Life Collection: have at least 50% of the items commercialized in 2022 manufactured according to the Join Life Standards.
- 100% renewable electrical energy in Zara's facilities

2023:

- 100% more sustainable cotton
- 100% free of single-use plastics for customers
- 100% zero waste: all waste generated at Zara's headquarters and stores will be reused or recycled.

2025:

- 100% more sustainable linen
- 25% reduction of water impact on Zara's supply chain

2040:

- Zero Net Emissions: achieve climate neutrality by 2040, which means having zero GHG emissions or offsetting the ones emitted by means of a transition to renewable energy and a way more ecological efficient use of resources.

Apart from the future commitments, the brand has already reached some milestones:

- 2001-2009: The first eco-efficient store was opened in Athens: it was designed to optimize consumption and to reduce CO₂ emissions during the different stages of the process.
- 2010-2015: Zara has launched the green to pack programme redesigning all the packaging to facilitate reuse and recycling. In addition to this, the Clothes Collection Programme was launched. Here, containers were placed in stores so that customers can donate clothing they no longer use to non-profit organizations. Then, these ones are responsible to give them a second life.
- 2016-2019: Zara signed the Fashion Pact: an alliance to encourage environmental sustainability in the fashion industry was signed together with other business in the sector. In this way, Zara concretely set tangible objectives in the fields of oceans, climate and biodiversity.
- 2020: Zara achieved 100% eco-efficient stores. Then, it also developed the 100% in-store clothes collection programme: customers can drop off garments they do not longer use in any store in which it is logistically possible. In addition to this, the company also achieved a zero discharge of hazardous chemicals. Indeed, by starting a collaboration with the ZDHC Foundation, it controlled the sustainable management of the chemicals used to manufacture products.
- 2021: Zara's Join Life Collection reached the 47%: garments under this standard reached 47%, which means they exceeded the 40% target Zara had previously set for itself. In addition, Zara joined the Leaf Coalition initiative, which unifies companies and governments in order to protect

tropical forests for the benefit of the people who depend on them. Through this project, the coalition is moving rapidly towards ending deforestation and promoting sustainable investments

Taking into account the **MKC-SO Framework**, this company clearly presents a low SO level. The activities and practices carried out by the company are not at all conducted towards a gradual integration of the environmental concerns. More in particular, no new capabilities related to these issues have been embedded in the business model.

By concentrating on the four sections of the business model, here the main details:

Business Infrastructure:

- Raw materials suppliers and manufacturers are trade by Zara's Social Sustainability team so that their compliance with its Code requirements is constantly and frequently checked.
- By now, the 97% of the production chain is clustered in 12 areas of cooperation through which the company tries to foster engagement between suppliers, manufacturers and local stakeholders.
- Zara's Fashion Transparency Index, an annual indication of the world's largest fashion brands ranked according to their level of disclosure on human rights, environmental practices and impacts in their operations and supply chains (Fashion Revolution, 2021), is not very high, and it ranges between 51 and 60%.

Customer Value:

- Overall, Zara's business model is not sustainability oriented. Indeed, even if some products and portions of the company's portfolio have a sort of relationship with sustainability targets, these are not spread all over Zara's reality.

Customer Infrastructure:

- Vague claims regarding sustainability are able to trick shoppers, who have other ideas and expectations.
- Zara's sustainability claims such as "Join Life" or other environmental-related slogans with the worlds "low-impact" and "eco" do not stand against the Competition and Markets Authority's (CMA) new guidelines on avoiding greenwashing (Changing Markets Foundation, 2021).

Management Infrastructure:

- The company has developed a Strategic Plan for a stable and sustainable supply chain. Inside it, a series of initiatives towards human rights respect and ethical trade has been clarified further.
- Being a fast fashion company, its core business is focused on producing mass-market fashion apparel that can fit customers' needs and tastes, while sustainability comes later.

The innovation: Collecting Clothing Programme

As a part of its social and environmental commitment, Zara launched the Collecting Clothing Programme in collaboration with local non-profit organizations (Zara, n.d.).

The aim is recovering garments that are no longer used in order to give them a second life. The service is currently offered in stores, where there clothes collection containers, but the brand aims at bringing it online too.

By considering Verganti's matrix of innovation, Zara's program could be described as a Market-Pull (Human-centered) Innovation. Indeed, both technology and meaning are incrementally changed. Thus, there is no uniqueness and novelty in its recycling scheme.

In addition, Zara's Collecting Clothing Program results as the adoption of a proto-institution in the fashion sector.

Donating items do not need to be from Zara: any kind of clothing of fabrics can be recycled. Footwear, accessories and even jewellery are considered.

Even if they are not in perfect conditions, garments can be donated. Indeed, they are sorted before being recycled. More in particular, all garments that are 100% cotton, wool or polyester can be recycled into new fabrics. The rest of the clothing, on the other hand, will be turned into materials for the construction and automotive sectors. Lastly, garments that cannot be in any way recycled undergo a rigorous waste management procedure.

Micro-institutional change

Business Infrastructure:

- Zara only acts as a sponsor for the program. Indeed, apart from placing bins and containers in its stores and advertising the initiative, there is no other clear intervention by the company.
- Zara's partners are 95 big non-profit organizations such as Caritas, Oxfam or the Red Cross.

Customer Value:

- Overall, the initiative aims at generating a positive impact both in communities and along the production chain of garments. However, the Business Model of the company does not shift with reference to the innovation proposed.

Customer Infrastructure:

- As it was previously introduced by analysing the company's advanced BMC, Zara tends to have big and misleading claims while advertising its products. In this case, sentences like "Working to drive circularity" used together with the usual slogan "Join Life" seem to be exaggerated and a little bit tricky with respect of the company's real commitment.

- Customers do not have rewards or other kind of stimuli that can help them in entering the program.

Management Infrastructure:

- The program is only available in some selected areas and stores, thus making the initiative not truly long-term oriented.
- The mission of the program is to lengthen the useful life of garments by giving them a new life and, in the meantime, to support non-profit organizations. Even if it is driven by a deep interest towards sustainability, its introduction was only incremental and led to partial results and effects.

With respect to the previously introduced Break, Make, Maintain perspective, Zara's innovation only maintained the previous and old institutions. Indeed, by not investing a lot and by not spreading its mission along the supply chain, the company did not commit nor to break neither to make any institutionalized rule.

4.4. Institutional Change

In order to have a general overview and discuss the approaches of different companies across different industries on sustainable orientation and market knowledge thesis adopt the MKC-SO model.

Following the approaches illustrated in the methodology, the fourteen cases are analyzed evaluating the Sustainability Orientation of each firm, as in Figure 9.

	Business Infrastructure	Customer Value	Customer Infrastructure	Management Infrastructure	
Patagonia	+	+	+	+	High
Fairphone	+	+	+	+	High
Save The Duck	+	+	+	+	High
Manteco	+	+	+	+	High
Carl Hansen	+	+	+	-	High
North Face	+	+	+	-	Medium-High
Apple	-	+	-	+	Medium-High
H&M	-	+	-	-	Medium-Low
Lush	-	+	-	+	Medium-Low
Ikea	-	-	-	-	Low
Moncler	-	-	-	-	Low
Zara	-	-	-	-	Low
Louis Vuitton	-	-	-	-	Low
Garnier	-	-	-	-	Low

Figure 9 Sustainability Orientation of the fourteen cases

The following step was to position the cases in the MKC-SO, the MKC position is defined case by case. The results are illustrated in Figure 10.

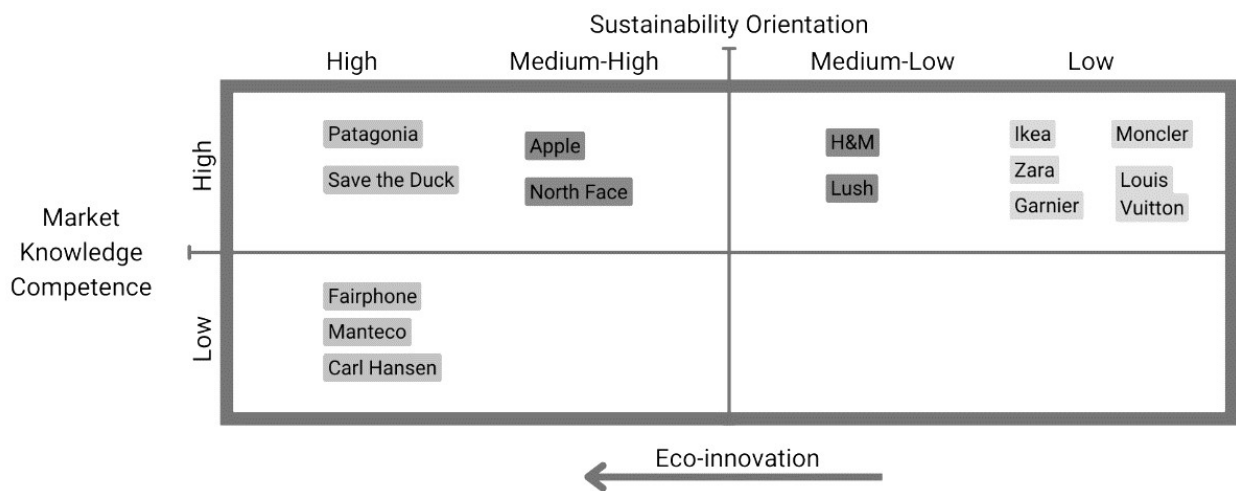


Figure 10 Cases placed in MKC-SO framework

Some major considerations can be taken from this model.

The first one is that companies are mostly position toward a high market knowledge. This is justified also by the literature as MKC is at the basis of having a competitive company that is able to satisfy customers

need and compete with the competition. The only companies that have a lower level of MKC are Fairphone, Manteco, Carl Hansen since they were born having sustainability at the core and not compromising the environmental and social impact to provide the customer products more appealing and competitive compared to the competition. These are companies that sacrifice economical efficiencies and the opportunity to get higher market shares to be aligned with their visions; often to compensate their loss the companies increase the prices positioning to a high/premium segment of the market.

Companies that overall have a higher level of sustainable oriented practices also have a higher price. This is due that new sustainability practices requires new suppliers and technologies that haven't been optimized yet and therefore results in higher costs (Norman & Verganti, 2014). Usually mass market companies (H&M, Zara, Garnier) are highly competitive on prices and therefore have more difficulties in implementing Sustainable Oriented Innovation; risking to loose important market shares to the competition, losing performance on other variables (such as price).

The third consideration is that, overall, the eco-innovation cases that were studied have to goal to position the company more to the left quadrant of the matrix; as illustrated by the arrow in Figure 10. It is important to highlight that the model is not static model but the level of institutional change integration is qualitatively defined comparing it to the average; which means that without innovation a company will move to the right losing the competitive advantage of having a positioning aligned with the megatrend.

The eco-innovations is a novel and better way for actors to co-create customer and business value while significantly decrease environmental impacts (Fussler & James, 1996). This brings the creation of new micro-institutional arrangements inside companies (Koskela-Huotari et al 2016). The framework illustrated above supports the theory that eco-innovation enhance higher level of sustainable oriented integration in companies.

The authors decide to adopt this model to gather the fourteen cases in three clusters according to the level of Sustainability Orientation:

- High: Green
- Medium: Blue
- Low: Yellow

This division is carried in order to highlight pattern in the adoption of the following framework.

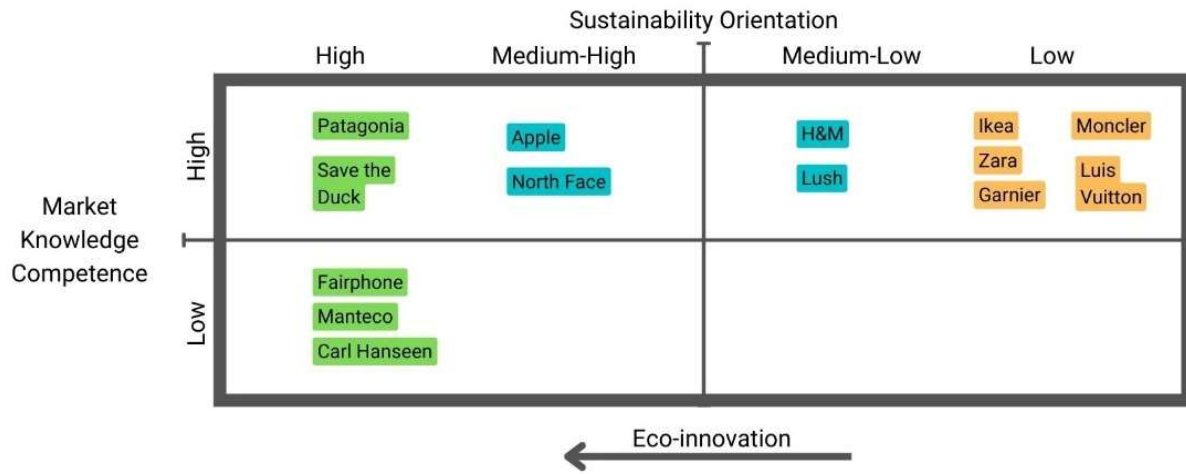


Figure 11 Three clusters of cases in the SO-KMC Framework

4.5. Innovation

In order then to categorize the innovations developed by different companies the authors adopt Verganti and Norman model that connects the two dimensions of innovation (technology and meaning) with the drivers: technology, design, and users (the market) (Norman & Verganti, 2014). The selection of the cases was carried by choosing companies that have developed an eco-innovation: providing to the final customer value and at the same reducing their environmental impact (Fussler & James, 1996). Despite the fact that the innovations were designed by different players in different times and different industries the choice of authors were based on the business model of the companies, the outcome of the innovation process. The outcome of the study supports the choice of the outcome proving that many innovation processes resemble one another despite different timing, companies.

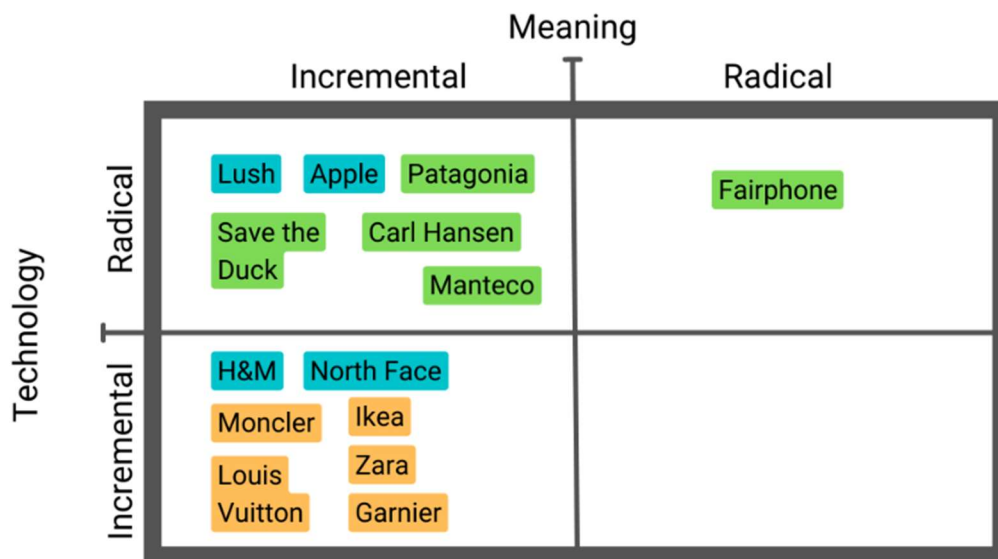


Figure 12 Verganti's framework on Technology and Meaning Innovation

From this model, the main considerations are related to the distinction between Sustainable Orientation level of integration (Green, Blue, Yellow). As it is shown in Figure 12, for high levels of sustainable orientation integration companies are more likely to adopt radical innovation. This supports the theory that those companies that are more aligned with megatrend (higher level of sustainable orientation), often introduce new radical innovation taking more risk in (Norman & Verganti, 2014).

Taking into account also the timing of the innovation; often these companies (high SO) are the first introducing the innovation. In the cases analysis are present some companies that do not respect these latter thesis (Apple), this can be considered as an outside that do not diminish the thesis. The analysis is qualitative and the results proposed are considering trying to define a common trend; for this reason, there will be outsider cases that do not belong to the same megatrend.

A last key takeaway that the authors can conclude from the analysis of the cases is that, in the specific context of eco-innovation, innovations are mainly related to the technology developed. Due to the fact that eco-innovation aims at reducing deeply the environmental impact of the company, it is often related to the material, suppliers and production processes. The innovation of meaning is an opportunity to generate a radical innovation in the experience of the product/service. In some cases, new meanings may support the alignment toward the megatrend; in the analysis of sustainable oriented institutions related to the cases of eco-innovation the authors didn't find many evidences of cases that adopt radical innovation of meaning. However, the authors are aware that there could be more cases of radical innovation of meaning; especially connected with other institutional changes.

In the framework illustrated in Figure 12, the authors can then classify incremental innovation as the quadrant Market Pull Innovation, while the remaining quadrant (Technology Push Innovation, Meaning-Driven Innovation and Technology Epiphanies) represent all cases of radical innovation.

The authors tried to capture a heterogeneous group of cases that belong to both typologies of innovation: seven incremental innovations and seven radical innovations.

5. Discussion

5.1. Introduction

The purpose of this thesis is to analyze the interplay of innovation and institutional change. Innovation is at the basis of sustaining business competitive advantage. In order to do so companies must innovate aligned with the market trend and megatrends. Megatrends enhance new institutional arrangement; the innovation process is the process of shaping the new institutions.

In the following chapters, the authors are illustrating the main consideration that results from the literature review and the case analysis abstracting from the empirical context of sustainability to analyze institutional change and innovation process.

The first consideration is related to the way in which innovation, and different innovation type, enhance different level of institutional change integration within the firm. Both Radical and Incremental innovation shape companies' institutions toward the macro trends. Despite the two type of innovations however tend to have differences in the overall integration of institutional changes, both of them are necessary to support the overall macro shift toward the innovation.

Then the authors propose a conceptual framework to study companies' innovation process with their institutional changes integration. In particular, such framework connects the two dimensions of Institutional Change Integration (high, low) to the typologies of innovation (radical, incremental) by proposing four different quadrant. The case studies are placed inside the framework and the four positioning are illustrated.

The thesis focuses on the four quadrants; through the uses of the adaptation of the Advance Business Model Canvas, the four positions are depicted by illustrating common traits among the different case studies.

After that, a perspective on the previously explored Breaking, Making, Maintaining framework is given taking into account the results of the case analysis.

The Discussion ends by focusing on the role of the framework as a dynamic tool and outlining possible means of changing positioning.

5.2. Innovations and Institutional change

Studying the micro institutions enhanced by the innovation cases, the authors identify the first findings.

Each innovation shape micro-institutions within the firm; radical innovation usually requires more time and brings a higher change in the micro institutions while incremental innovation impact on the institutional change integration is lower jet fasted. Adopting the model of Figure 5, the authors developed Figure 13 Figure 14, representing the different innovation approaches to innovation adopted by different companies.

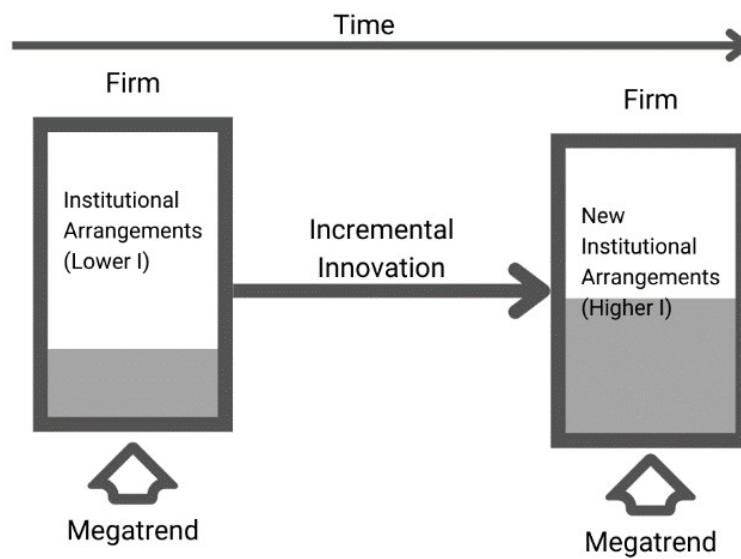


Figure 13 Incremental Innovation

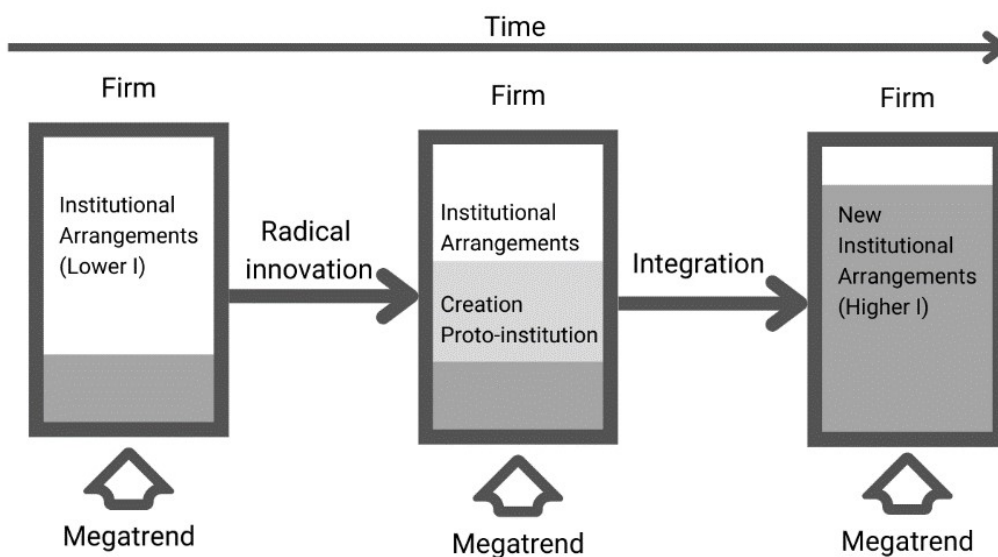


Figure 14 Radical Innovation

By developing the model, it is possible to see a list of differences between the two approaches; these can be generalized in three categories:

- **Proto Institutions:** the first major difference between the two is that radical incremental, usually, include the creation of a proto institution. This is aligned with the theory as radical incremental intrinsically comprehend the creation of new rules in the games. These are not yet tested and accepted and for this reason there must be a proto-institution. Once the radical incremental has been fully integrated and accepted in the company than it becomes a micro-institutional arrangement within the firm. On the other hand incremental innovations consist in adopting new institutions within the company but that have already been shared in the industry and therefore are already widely accepted.
- **Timing:** for this reason the timing of action of the two innovation approaches is widely different. Logically, and once again confirmed by the theory, incremental innovation requires less time and effort while instead radical innovation is more expensive, requires more time and often is less likely to end up being widely established in the market.
- **Impact:** the value in developing radical innovations are then related to the level of micro-institution that are shaped through the process of innovation within the firm. Radical innovations brings higher level of institutional change integration than compared to incremental innovation.

The frameworks enable the authors to identify two main considerations in the creation of new service ecosystems.

Two approaches regarding innovation exist. As the theory and the research based upon the case study shows, companies can respond to innovation in two different approaches: by introducing a *radical* innovation, or an *incremental* one.

It is not the objective of the authors to state that one of the two is better with respect to the other. In fact both the types of innovations are essential; quoting Verganti and Norman's thoughts:

"Furthermore, innovation to reach full success in the market are not purely the result of radical innovation from scratch but is the result of incremental innovation that improve its performance, lowers the cost, and increases the desirability." (Norman & Verganti, 2014).

It is in fact important to highlight that the overall acceptance and enhancement of institutional changes comes through the process of founding new proto-institutional changes through radical innovation and then diffuse them through the incremental innovation of many other companies in the industry.

These are not authors' findings but are the application of the models studying in the literature review, adopting Kleinaltenkamp et al. theoretical framework to illustrate the process of innovation and the shaping of institutions within a firm (Kleinaltenkamp et al., 2018). Once again it is important to highlight

that the process of shaping institutions within a service ecosystem doesn't purely refer to the creation of new institutions but at the same time it is important to maintain and drop some of the previous institutional arrangements. In the next chapter the authors are going to illustrate the framework proposed to analyze the interplay of innovation and institution.

5.3. Framework proposed

The purpose of this thesis is to analyze the how the innovation process shape micro-institution change that enhance companies alignment with macro institution changes and to provide a theoretical framework to address companies' innovation process interplay with institutional changes integration. For this purpose, the authors propose a four quadrant matrix that study different approaches that companies may take towards innovation and macro institution. Here, the authors introduce two dimension to look at the innovation processes that companies take to remain relevant toward megatrends. The framework of Figure 15 connects the two dimensions of institutional change integration (high and low) with the typologies of innovation: incremental and radical.

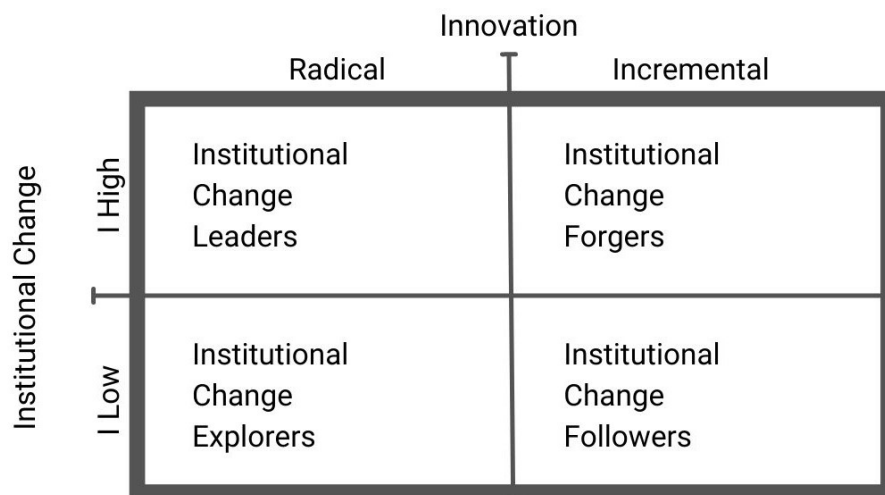


Figure 15 Framework proposed by the authors

The authors use these two dimensions to define four different approaches that companies adopt to follow institutional change:

1. **Institutional Change Leaders:** comes from radical changes in technology with a high integration of institutional changes in the firm. It comes from the core belief of companies to integrate micro-institutional changes aligned with the megatrend.
2. **Institutional Change Forgers:** those companies that deeply integrate institutional micro-institutional changes in their business model without developing any radical incremental in their innovation process. Often the company is institutional highly integrated to follow the market need but this integration is not followed by firm's strategy and management. The risk is to underperform compared to the promises. The term "forgers" is to be interpreted as "pretending to have be more aligned with the institutional change than the company really is". This approach leverages on the competitive advantage of being more aligned with megatrend and macro

institutional changes (Claudy, Peerson, Pagell, 2016). However since the high level integration of the new institutions doesn't originate from the innovation, often it is the results of companies that don't truly "walk the talk" and this can be penalized by the customers.

3. **Institutional Change Explorers:** bring a radical innovation in the firm, but the entire company hasn't integrated highly institutional changes throughout the all firm. The term "explorer" aims at highlighting the effort placed and the experimentation approach that companies place in developing innovation aligned with the macro institution. However this type of companies are not capable of truly transform the innovation in a complete integration of micro institution throughout the firm. In this way despite the high investments in innovation they are not capable of fully leverage on the competitive advantage originated from the alignment with the institutional change
4. **Institutional change Followers:** Low level of integration on the institutional practices and low investment toward the development an innovation that supports the alignment of companies' micro-institution to the macro-institutions.

The authors position the fourteen cases in these quadrants, obtaining the results illustrated in Figure 16. Then, they elaborate on the common traits of each quadrant through the use of the adaptation of the Advance Business Model Canvas.

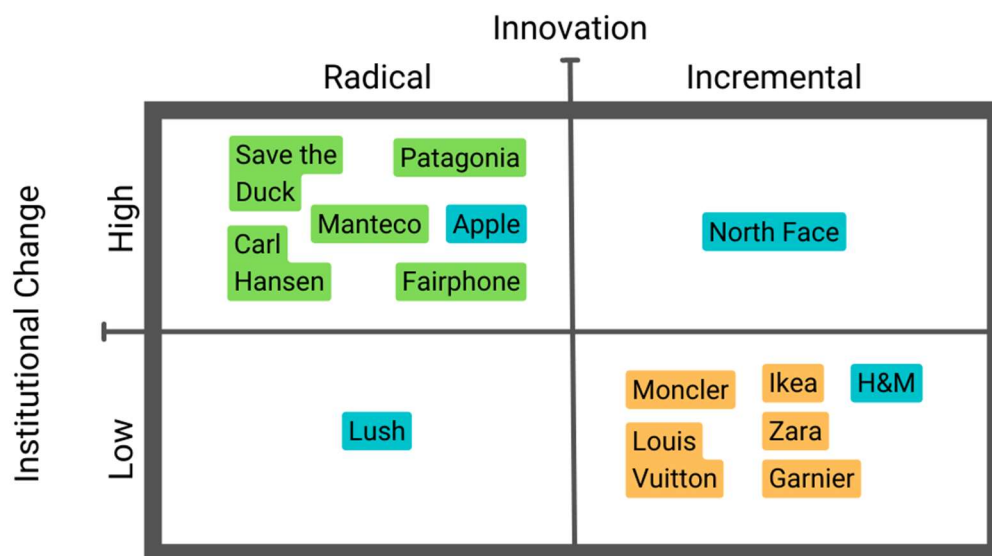


Figure 16 Framework proposed with the fourteen cases

5.4. Quadrants

The following overview combine theory and the result of the case study analysis to draw the common characteristics of players that belong to each of the quadrant in the framework proposed. The overview is carried trough the lenses of the adaptation of the advance business model canvas and the four voices:

- Business infrastructure
- Business Value
- Customer Value
- Management Infrastructure

In this part of the discussion the authors are going to illustrate general overview looking at the institutional changes with some references on the specific context.

Institutional Change Leader

- **Business Infrastructure:** the whole value chain, from supplier to end customers passing through employees, is engaged in the institutional change
 - Innovation does not only mean business change: organizational transformation is crucial. Employees are stimulated and involved in the shift proposed by the innovation. They are included in the company's activities and initiatives, and they are educated as customers in order to share the mission that led to the introduction of the innovation.
 - In parallel, suppliers are not just mere source of raw materials, products or resources. The choice of suppliers requires a series of proofs. Indeed, only certified and qualified suppliers are selected in order to keep a high standard of quality and to guarantee the respect of the rules aligned with the change of institution. In addition to this, they are not only passively involved but they are actively integrated in the co-creation of the innovation.
 - Suppliers are tracked in order to guarantee complete transparency regarding where, from whom originates the creation of value. Thus, it is very common to find suppliers lists containing all the details and information of raw materials producers.
 - Local suppliers and small realities are preferred compered to big producers and incumbents. Smaller suppliers offer more flexibility and dynamicity in following the institutional change.
- **Business Value:** there is a business model change involving the totality of the activities, processes and people involved.
 - The innovation introduced does not regard only one product/ line, but the entire product portfolio of the company is changed.

- Together with the horizontal involvement of all the lines of production, there is also a vertical enlargement. Thus, the whole value chain is impacted: the innovation - the protoinstitution created - is not only embedded in one single line, but it affects the entire production. However, it may start in only one company segment, but in order to have a wider impact on the level of institutional integration it spread all over the processes.
- **Customer Infrastructure:** end-customers are actively involved and communication is not only aimed at exposing and illustrating but it focuses on sharing and building a new knowledge regarding the innovation introduced.
 - Customers are not only passively involved in the purchasing phase, but they are actively involved as actors in this collaborating innovation.
 - Communication is used as a means of knowledge sharing. Together with clients, companies aim at building new knowledge.
- **Management Infrastructure:** long-term investments clarifies the importance of the change of institution in the entire company's value chain.
 - Investments on tools, production methods and certifications are the proof that the change of institution provoked a huge shift in the whole production system.
 - The mission of the company is related to the change of institution, which really becomes the core of the business.

Institutional Change Forgers

- **Business Infrastructure:** a great part of the value chain is shifted thanks to the change of institution. However, some other parts and functions remain stuck to the previous service ecosystem.
 - The selection of suppliers qualified and certified with regards to the changing institution represents an important step in the production process. They are usually tracked in order to guarantee an uninterrupted flow from the very beginning to the end of the value chain.
 - Even if they are selected with attention, there is no real interest in involving suppliers in the co-creation of the innovation. They are mainly the purveyor of materials and resources, and they are passively involved in the change of institution. The process of cocreation of innovation is not carries.
 - There is a preference towards local and small suppliers better than big incumbents.
- **Customer Value:** although the change of institution is deeply embedded in the business model, not the totality of the activities is taken into account.

- The innovation introduced affects only a part of the product portfolio of the company. Some limitations, that can be geographical or of other types, prevent the change of institution to be spread.
- The change of institution can be vertically or horizontally enlarged, but it usually stays in the initial stage in which it was introduced, due to the fact that it was introduced incrementally
- **Customer Infrastructure:** end-customers are actively involved in the change of institution. A process of knowledge sharing is built with them.
 - Customers are actively part of the purchasing, consumption and disposal phase.
 - Communication is a strong mean of knowledge sharing; thus, it is highly leveraged.
- **Management Infrastructure:** even by investing a lot, there is an incremental approach towards the change of institution.
 - Incremental and slow innovation with regards to the change of institutions. There is no fast shift towards realities and infrastructure more aligned with the new institution.
 - The vision of the business seems to be target towards a medium-term performance, more than on a long-term perspective.

Institutional Change Explorers

- **Business Infrastructure:** almost the whole value chain is oriented to the change of institution, even if it is not at all focused on that.
 - Suppliers are attentively chosen and selected. Indeed, through a radical intervention towards the change of innovation, new guidelines were set and all the ones that were not compliant anymore were removed and avoided.
 - There is no clear disclosure regarding key resources and activities. Products and raw materials are clustered into big categories, so that, in this way, transparency from the very beginning to the end is not guaranteed.
- **Customer Value:** at a first glance, the entire product portfolio results aligned with the change of institution. However, by taking a second look, many discrepancies emerge.
 - The innovation seems to be embedded in the entire products portfolio. However, by investigating deeper, it is easy to find some incongruencies regarding the real orientation towards the change of institution.
 - The company has faced some accuse of impeachment or bad behaviors regarding the institutional change, thus making its whole reality a little let trustable.
- **Customer Infrastructure:** the relationship with the customer is active, thus meaning he is concretely involved in the business.

- Communication is used as a strong mean of knowledge sharing. However, some big claims and slogans used do not, concretely, describe the business as it is. The tendency is to only disclose the institution-oriented infrastructures, while hiding the rest.
- End-customers are involved in the change of institution, as they are stimulated to actively participate in the change.
- **Management Infrastructure:** these businesses are characterized by high investments and long-term targets. Thus, it means the change of institutions represents a crucial pivot.
 - Long-term investments on machinery, tools and production methods characterize such businesses. In this way, a clear interest towards the change of institution is shown.
 - The mission of the company is deeply aligned with the change of institution. Indeed, it becomes the core of the business and it acts as the guideline for all the future developments.

Institutional Change Follower

- **Business Infrastructure:** the change of institution regards the company but does not in any way spread along the value chain.
 - Suppliers are usually big corporates or incumbents. Indeed, by doing so companies can leverage on their big exposure in order to be more relevant and increase their visibility.
 - There is no clear and disclosed list of suppliers. The vagueness of such indications makes the process not transparent at all.
 - The institutional change affects the company, which takes part to this. However, this is not also spread along other participants of the value chain, such as suppliers and employees.
- **Business Value:** while some parts of the business model are affected by the change of institution, some others are not and they end up being misaligned with it.
 - The business model is only partially changed. The shift introduced with the innovation is not integrated in the other areas and units taken into account.
 - As a matter of fact, the change arises from an accusation or an impeachment regarding ethical, environmental or social actions carried out in the wrong way by the company. Indeed, in this way it results developing this innovation in order to justify its previous actions, and not for a real interest.
- **Customer Infrastructure:** the relationship with customers is mainly passive and does not contribute in any way at building new knowledge.
 - Clients are involved in a passive way and do not have any active interaction with the company. Indeed, they only have a purchasing relationship in which they buy and use the product.

- There is no real knowledge sharing with customers and the reports or information addressed to them are mainly only generally illustrative.
- Communication and marketing are mainly based on targets and objectives in the long-term, such as 2025 or 2050.
- Advertisement is based on big claims and slogans that do not in any way provide knowledge or high level of details. Indeed, vague information is delivered to the end customer.
- **Management Infrastructure:** a short-term orientation characterizes the business, which are facing the institutional change with a time-limited vision.
- The company sets a set of targets and objectives and no concrete actions towards the change of institutions.
- A short-term vision implies the fact that the company is perceiving the institutional change only in a performance oriented point of view.

Institutional changes are complex and happen in a complex service ecosystem. Therefore, there is not a clear single macro-institutional change and a defined single micro-institutional change, but the two dimensions needs to be comprehended in a big picture view. This means, in the authors' particular landscape of analysis, that the context of sustainability was the one analyzed but the thesis aims at having a wider significance also considering other institutional changes.

The authors have also identified that often companies that tend to be more institutional change oriented (context of environmental sustainability) tend to be more open to the integration of other institutional change oriented also link to different megatrend (social sustainability, inclusivity to say some).

5.5. Dynamic perspective on the model

The hypothesized matrix presented by the authors needs to be considered as a dynamic one. Due to the fact that the axis of institutional change integration is not a fix value but it is value according to the benchmark of a sample in considers an single institutional change; both the sample average institutional change integration may change and the institutional change itself may vary. This means than a company that today has high level of institutional change integration one day can result in having a low level of institutional change integration if it does not carry any innovation. At the same time one company may have very high level of institutional change integration according to one institutional change but if the company doesn't pay attention in defining the future megatrend and develop innovation aligned with them, the company may result in having a low level of institutional change integration compared to other.

The frame therefore should be updated regularly. And should be tested over a wide range of institutional change integration.

The distribution of the case studies on the graph shows a high density in the upper-left and bottom-right quadrants, thus being Institutional Change Leaders and Institutional Change Followers. Indeed, they represent the more rewarding (Leader) and more efficient (Followers) areas as the case analysis identified. The Leader block is the more rewarding quadrant as it able to convert the investment in radical innovation in high level of institutional integration within the companies; this is rewarded by the actors in the service ecosystems. While instead Institutional change Followers can adopt a less risky approach developing incremental innovation that requires less time and investment; but at the same time shape new institution aligned with the macro trend and therefore still able to remain competitive on the market.

Companies placed in the two low-populated quadrants, Institutional Change Forgers and Institutional Change Explorers, are facing instead less advantages in their positioning. In both the cases, companies are profitable and own a respectful share in their markets. However, both the areas present some criticalities.

Institutional change explorer are not able to convert the higher investment in developing a radical innovation in a strong institutional change impact on the firm. While institutional change forger often integrate higher level of institutional changes within the company but keeping a conservative approach, developing incremental innovation, and therefore are not truly able to convert the institutional changes integration into product or services delivered; in the case of sustainability the environmental impact of north face is not as high as its sustainable orientation.

The major risk in both case is to not be rewarded but penalized by the service ecosystem actors, one example of it can be accusation of green washing.

Institutions influence the development and change the service ecosystem they act upon. Strategically is more efficient to work on the institutional arrangement in a single block of the authors' adaptation of the advance BMC (Business Infrastructure, Business Value, Customer Value, Customer Infrastructure) than to drastically change the innovation process and approach of a firm. Today innovation is no more develop internally in any company but it is a complex process where many actors co-create value through resource integration; the level of complexity therefore increases since many actors should be take into account. For a company that typically develop incremental innovation it is therefore harder to switch to developing radical innovation than to change the level of institutional change integration. Often the ability of a company to produce radical innovation is linked with the size of the firm; as smaller companies can be more flexible and take more risk, this assumption it is partially demonstrated through the case studies (apple is the only truly large company that has also developed a radical innovation).

Indeed, changing institution is easier than changing innovation. However, this depends on the strategic choices and plans of the firm, and both the field (institutional change integration and innovation) are coand to a more profitable environment, the position can shift vertically and horizontally to move toward institutional change leader or follower.

Considering the Institutional Change Forgers, who have innovated in an incremental way, doesn't reflect the change of institution higher integration. Indeed, even if responsible for a high institutional change, their slowness in adapting in incremental innovations made them lag with respect to others.

Thus, Institutional Change Forgers have the potential to move in two directions:

- They can move towards becoming Institutional Change Leaders if they agree on radically intervene on their service ecosystem; and develop a radical innovation.
- On the other hand, they can also aim at moving down towards Institutional Change Followers. In this case, they need to re-align their Institutional Change towards a lower one.

The other low-populated quadrant, Institutional Change Explorers, is represented by companies that innovated radically but that led to a Low Institutional Change. As the previous cluster, they can aim at moving in two directions:

- They can move up, thus becoming Institutional Change Leaders. Indeed, by adapting their business model, which is not truly oriented towards the change of institution, and by restructuring their communication schema, they have the possibility to move.
- They can move to the right in order to become Institutional Change Followers. In order to do so, companies should avoid to integrate the radical innovation throughout the entire company and develop a more incremental type of innovation.

Companies that are mainly focused on competing on price, mass market businesses, face more obstacles in moving toward the Institutional Change Followers quadrant due to the fact that for new innovation the costs and inefficiencies are high (verganti). Therefore, they should still work with the aim of innovating in order to be aligned with macro-institutional change, but they would best adopting an Institutional Change Followers approach.

On the other hand those companies that position as Institutional Change Leader can benefit of an offer more aligned with the global megatrend and thereby highly valued by the customers. This can justify higher prices policies that justify the effort companies to develop a radical innovation. Institutional Change Leader can also leverage on a niche customer segment that particularly are aligned with institutional change value and therefore are loyal to the brand. In the case of sustainability these are all the customer that are particularly conscious about their environmental impact and therefore would not switch to other brands.

To conclude the authors would like to analyze the four quadrant adopting the perspective of the previously introduced framework of Breaking, Making and Maintaining institutionalized rules. Indeed, by carefully looking at the Advanced BMC adaptation and at the details of the single voices, the authors defined which of them were broke, made and maintained through each innovation.

The main findings of the research can be summarized and clustered in the following way:

Institutional Change Leaders:

- There is a tendency on making new relationships along the supply chain. Companies that belong to this cluster show a trend toward the development of new rules and certifications regarding suppliers, which then require for a shift of the whole supply chain. Indeed, old and previous materials provider usually do not satisfy new needs. Therefore, if they do not align and embrace the change, new relationships are built.
- Connected to this, Institutional Change Leaders tend to make - thus, to build - new knowledge along the supply chain. In details, they usually spread their mission both with suppliers and with employees, in order to make the innovation they are proposing accepted and shared by everyone. Such relationships do not remain as the old ones, but the target is to vertically align everyone toward the same aim.
- In addition to this, in this cluster there is even an interest in knowledge building with end-customers. This differs with the previous interest in merely sharing such knowledge, without any active approach and with no interaction at all.
- In some cases, companies belonging to this cluster focus on making new methods and processes that can substitute the previous ones. These are usually the result of long-term investments that can be exploited throughout the years.

Overall, the entire cluster seems focused on the Making and Breaking dimensions, as the concrete and real shifts in the sections evaluated are more than the parameters that keep fixed.

Institutional Change Followers:

- There is a tendency towards maintaining the previous supply chain structure, regulations and relationships. Indeed, in a few cases some changes are introduced, but they only involve a part of the whole structure.
- Aligned to this, the previous knowledge shared among the entire chain is maintained. There is little to no interest toward building new knowledge and awareness, both with regards to the suppliers than to the employees.
- Taking into account end-customers, their relationship with the company is only maintained. Indeed, the same communication and marketing means are used to share information and knowledge. No proactivity or interaction is stimulated on this side.
- Regarding production per se, the same previous methods and tools are maintained. Due to the tendency toward short-term performance related objectives and investments, companies belonging to this cluster do not make or break any institutionalized rule in this field.

Overall, this cluster is more stuck on maintaining the previous institutionalized rules than on making new ones.

6. Conclusions

6.1. Introduction

To conclude the authors would like to highlight some of main contribution of the dissertation, illustrating the managerial implications and the theoretical implications of the dissertation. The authors also would like to conclude suggesting some of the major limitation and suggest further research, in fact the thesis is based on a qualitative analysis and takes into consideration the single empirical case of sustainability. Further researches should take into account other megatrend and the aligned institutional changes. For this reason the author end by suggesting some possible field to explore in the future research.

6.2. Managerial Implications

The thesis propose a framework of analysis of the interplay of innovation and institution and the relation of innovation and micro-institutional change. As the beginning of the thesis start with Darwin theory the need of innovate and adapt to the service ecosystem is at the base any long-running firm.

The thesis, in fact, provide some important insight that should be leverage by managers in order to have a clearer overview of company and competitor position and to leverage on firm's asset in order to gain competitive advantage. Managers should then select a megatrend, a form of innovation aligned with the megatrend and a pool of interesting business cases relevant to the same industry. Through the managers can position any firm's innovation development and institutional arrangement integration level, so to have an overview of the competitive scenario, of firm's internal level of institutional change integration. Then the managers can take informed decision aligned with the authors' previously mention way of changing positioning.

Then the managers can also adopt the thesis as a benchmark to analyze what are the main common variables to each quadrant and then decide to work on one of these variable order to increase the overall institutional change integration level.

The dissertation only quickly concentrates on the difference between the institutional change integration at a macro level and the innovation process of companies. One of the most powerful managerial implications of these model is to have an analysis that can also be adopted as a forecasting and advice tool to study new megatrend and new innovation applied by firm. So that a similar evolution, with the relative differences, may repeats and manager could be able to profit from this evolution.

6.3. Theoretical Implications

On a theoretical level, this dissertation contributes to the literature in three main ways. First, it contributes theoretically to the formalization of the process of innovation and shaping of new micro-institutions aligned with a mega-trend. Such process regards the different approaches than company may follow in developing an innovation and the consequential shaping of the institutional arrangement of the service ecosystem of the company. The delineation of this process invites to redefine the impact of innovation in companies' institutional change integration levels. Second, the research represents a theoretical contribution on the new intermediary role that the MKC has to identify new macro-trends and for company to reposition themselves to be aligned with macro-trend. As shown in the case analysis the common trend is to innovate in search of higher alignment with macro trend. Third, the research contributes to the literature by proposing a new conceptual framework of analysis of the interplay of innovation and institutional changes. This study presents four quadrant to classification of innovation cases.

6.4. Limitations

As the majority of studies, the findings previously proposed have been interpreted in light of some limitations that might have affected the research and the process.

In the following section, the authors' intention is to acknowledge about potential limitations of the research and to explain the reasoning behind the choices made in the process. While some of them were already evident before starting the study, some others become clearer while the research was already running.

The suggested limitations of the paperwork are related to a subjective view of the authors regarding the most potential and impactful factors analyzed throughout the whole research and investigation process.

Therefore, the identification of limitations that might impact on two important features of the research follows:

- Limitations on the quality of the findings;
- Limitation on the ability to effectively answer to research questions and hypotheses.

Only factors belonging to the here above mentioned clusters are taken into account, due to the fact that they represent the most potential boundaries of the research.

In particular, the authors identify five Research Limitations that will in details be exposed:

1. Qualitative approach;
2. Sampling strategy;
3. Selection phase: Typology of innovation: *eco-innovation*;
4. Selection phase: Typology of institution: *Sustainability-Oriented Institution*;
5. Selection phase: Typology of companies: *B2C market; selected industries*.

Apart from the overall qualitative approach applied to the entire thesis process, all the potentially most impactful limitations are connected to the sampling strategy and selection phase.

As previously anticipated, the authors are hereby offering an overview of the limitations in order to analyze their effect and justify the choices behind such decisions:

1. Qualitative approach

As in depth discussed in the methodology section, the authors use a qualitative approach along the entire case analysis. This choice is guided by the interest to gain an understanding of underlying reasons and motivations and to discover prevalent trends.

In addition to this, the authors manifest the intention to guarantee a deep investigation on the single case and the possibility to avoid an over-dimensional sample.

However, this decision might affect the research due to a possible biased and subjected analysis.

Moreover, results and findings of a qualitative approach are not statistically representative. Indeed, by being a perspective-based method of research, little to no quantitative data are collected, and the responses are not measured.

2. Sampling Strategy: Low number of cases

The sampling strategy that follows a qualitative approach enable the authors to collect a small sample to analyze.

More in details, consequently to the decision of going towards a qualitative research, the authors investigate more on the "why" rather than on the "what". In order to guarantee a comparable and coherent sample, some modifications of the initial sample are made. Because of that, many of the cases considered at the beginning of the research were then excluded. The final sample the authors analyse in thus made up of 14 non-representative cases.

Indeed, the procedure produces then a large amount of detailed information about a quite small sample. This output results in a rich understanding, but quite reduced in generalizability.

3. Selection phase: Typology of innovation

The authors decide to concentrate on one single typology of innovation represented by Eco-Innovation, "the process of developing new products, processes or services which provide customer and business value but significantly decrease environmental impacts." (Fussler and James, 1996).

Eco-innovation is considered as an important pathway towards sustainable development in the business sector (Jang et al., 2015). In addition to this, it is also showed that eco-innovation could be quantitatively measured (Jo et al., 2015).

The choice of this particular innovation may have led to limitations since it has prevented other cases to be selected, and other areas to be investigated.

4. Selection phase: Typology of institution

As for the innovation selection, the typology of institution investigated is limited to the Sustainability-Oriented one. As previously preannounced, SO shows and recaps environmental concerns and practices that are integrated into enterprises' strategic, tactical, and operational actions in a proactive strategic manner (Roxas and Coetzer, 2012).

Even if SO represents an interesting and long-term perspective, the choice of this as the typology of institution might have a great impact upon the final result.

5. Selection phase: Typology of companies

In order to guarantee coherency among the sample and to enable a smooth comparison between same businesses, the authors decide to concentrate exclusively on the B2C market. Indeed, by taking into account also B2B realities, different perspectives and tools should be introduced.

More in particular, the Advanced Business Model Canvas the authors use to analyse the cases requires some modifications as some of the sections are not coherent between the two business infrastructures.

Therefore, to avoid complex changes that were not expected to give a concrete output for the research, the authors decide to only focus on the B2C Market.

In addition to this, the paperwork is built on the analysis of companies belonging to four defined industries: fashion, furniture, beauty and consumer electronics. The selection of the four areas was driven by the desire to select crucial areas with respect to the empirical context of the research, sustainability.

6.5. Future Research

The previously exposed limitation can be overcome through future research. Therefore, the authors want to analyze how to build a reflective move to further explore the findings hereby discussed.

With respect to the limitations listed before, authors are suggesting moves to reorient the Selection Progress, thus referring to limitations 2, 3 and 4.

Limitation 2: Sampling Strategy: Low Number of cases

The qualitative method used led to a small sample of analysis. Through the selection of a bigger sample, a more useful and satisfying cluster of data can be analyzed. However, this might lead to a more time-consuming activity, and it might be connected to a less detailed description of the object.

Limitation 3: Selection phase: Typology of innovation

By only selecting eco-innovation as a context of analysis, the authors focused on a limited perspective. Indeed, this exclusively regarded innovation in both products and services that could be relevant to reduce the environmental impact of the companies that introduced it.

Therefore, authors are suggesting to investigate upon other typologies of innovation, such as, among the others, social innovation.

Limitation 4: Selection phase: Typology of institution

The selection and the limitation of Sustainability-Oriented institutions as the context of analysis could be overcome by selecting other typologies.

The authors are thus suggesting to further explore other institutional fields in order to gain a wider and more generalized view on the concept.

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