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**"I NEED SOME TIME TO MYSELF: IS TIGHT COOPERATION
ALWAYS A GOOD THING?"**

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INTRODUCTION

“If I had asked people what they wanted, they would have said faster horses” (Henry Ford)

It takes a rapid glance at the widely popular quote of Henry Ford to comprehend that customers do not always know what they want. Or better, we can say that customers, in certain circumstances, are incapable of expressing clearly and explicitly their needs and desires. This observation is well summarized by one of the most famous (and also controversial) considerations from Steve Jobs: *“A lot of times, people don't know what they want until you show it to them”*. The reason behind this sentence is clear: in highly-innovative sectors especially, customers could be a source of creativity, but, at the same time, could be a burden for firms. Indeed, customers' opinions and suggestions could represent the source of various problems, particularly during the development/innovation phase where products and services main features are thought, designed and shaped.

This is why companies struggle with how much listen to customers. Furthermore, we should observe that this is not only true in innovative or highly-technological industries, but it is often the case in other sectors, too: such as, experiential services and credence goods.

Hence, even if customers typically represent the starting point to shape an effective business strategy, some boundaries should be established.

Especially nowadays, customers are increasingly dynamic, informed and connected. Therefore, firms are encouraged to shape new strategies to actively involve customers in the creation of their offerings, in order to satisfy their strong need for empowerment, that turns customers into *co-creators of value*. Customer participation could be the origin of remarkable beneficial outcomes, such as increased satisfaction, retention and improved creativity and innovation. At the same time, though, the involvement of other actors in activities traditionally performed by the organization could represent a source of risks and challenges.

In general, *value co-creation* is about the joint creation of value by the provider and its customers, where customers can actively interact with the firm to co-construct their personalized experiences (Prahalad & Ramaswamy 2004). Of course, this is only one of the definitions that the literature has proposed over time for co-creation (Grönroos & Voima 2013; Wikstrom 1996; Vargo & Lusch 2004). However, it perfectly describes its most important features: the active customer involvement inside the firm's typical value-chain activities and its virtuous outcome.

Therefore, everything starts from the fact that the customer is now an active player and, thus, could influence the firm's activities in different manners: he or she could take relevant decisions, contribute resources, propose new ideas and suggestions.

Given this, the questions are the following: **has customer involvement an actual impact on product quality?** And, if so, **does such involvement have positive or negative effects on the ultimate performance of co-creation?** Again, **is there a recurring pattern that describes the relationship between customer involvement and performance, or is its trajectory basically unpredictable?**

The reason why we decided to investigate this matter is self-evident. The literature about co-creation has been and it still is strongly optimistic about its implications and outcomes (Vargo & Lusch 2004; 2006; 2008; Grönroos & Ravald 2011; Grönroos & Voima 2013). It is all about the benefits of co-creation, how much the customers are happy with it and how it could help firms in achieving a sustainable competitive advantage.

Conversely, the possibility of failure, thus the possibility that value is co-destroyed, and the fact that customer involvement could represent a cost are often overlooked.

This is where we started from. Since failure is part of everyday life in business, it is not very unlikely for co-creation to be exempt from costs, risks and disadvantages.

It is sufficient a simple example, among the others, to understand that, in practice, the involvement of the customer could entail risks (beyond benefits): the customer is not an expert and to obtain a certain product or service, he or she turns to the provider who owns the knowledge to produce or to provide that product or that service, respectively.

Again, the provider knows, the customer does not. Now, we can add the co-creation framework: the customer is actively engaged in one or more of the provider's activities. Implications arising from the customer's incompetence and inexperience could be various: extra coordination efforts, provider's stress, lengthy processes, waste of resources.

This is just one of the wide variety of examples that could be provided to understand that customers are not always the most effective and efficient cooperators.

Thus, our main aim is to provide those tools that may be employed in further research to test if customer involvement has an impact on the final quality of the outcome of co-creation. Afterwards, given this, if such outcome is actually positive (i.e. value is co-created) or negative (i.e. value is co-destroyed). Indeed, there could be cases in which customer involvement is highly beneficial and other contexts where it would be better to limit the intensity of interactions.

Hence, **which are the relevant variables to measure the aforementioned relationship?** The scope of our research is exactly this, in the end. In particular, we want to focus on those variables that, together, could be: accessible, general and robust.

As a matter of fact, the literature has already tested the correlation between customer participation and performance. However, the researches available are highly context-dependent and focus much more on customer behaviors, rather than on the intensity of the involvement (Ennew & Binks 1999; Vega-Vazquez et al. 2013; Hunt et al. 2012).

Moreover, and most importantly, we aspire to assess the performance from both point of views (i.e. the customer and the provider), whereas the literature has typically privileged the analysis of the customer. Indeed, assessing the performance from one perspective solely, could lead to partial results.

The first chapter will start with a quite general overview on co-creation. In particular, the term co-creation is tightly linked to two other key constructs: the *Service-Dominant logic* and the concept of *value-in-use* (Vargo & Lusch 2004; 2006; 2008). Hence, after the presentation of the origins of the term, we will introduce and explain the difference between Service-Dominant logic and Goods-Dominant logic, followed by the necessary distinction between value-in-use and value-in-exchange. These elaborations have the main purpose to facilitate the comprehension of value co-creation and of its main implications. After this quite general part, the work will present the different manners through which co-creation could take place. In particular, we will focus on two of them: co-design and co-production; in this regard, we will also highlight the fact that their meaning and their distinction from co-creation is still confused and not uniformly shared in the literature. Afterwards, this chapter will include a brief paragraph over the typical conducts adopted by the provider and the customer within participatory relationships. In particular, it will specify why the customer is referred to as “*partial employee*” (Groth 2005; Mills et al. 1986) and why the provider is conceived as a “*value facilitator*” (Grönroos & Voima 2013). To conclude, main co-creation challenges are presented.

The second chapter is customer-focused: being the customer the heart of co-creation, the study of his or her participation has been particularly tackled by the literature. In this regard, the first paragraph is probably the amplest, because it will present the two categorization of behaviors typically implemented by the customer during co-creation: *customer participative* and *customer citizenship behavior*. This distinction puts its roots in the organizational behavior theory and, in particular, on that part that investigates employees’ behaviors and performances (Groth 2005; Yi and Gong 2013). Nevertheless, being co-creators (i.e. customers) conceived as partial employees, this part of the theory has been extended to them, in order to study their behaviors

within participative relationships. After this analysis of customer behaviors, we decided to include a paragraph dedicated to organizational socialization. Being the customer a new resource within the organization, firms could effectively involve him or her, favor his or her adaptation and role-learning through diverse socialization techniques (Kelley et al. 1990). Finally, in order to provide a comprehensive analysis, we will introduce customer dysfunctional behaviors, that is, those behaviors that could harm the well-being of the relationship (Spector et al. 2006).

The third and the fourth chapter will analyze the performance of participative relationships from two different perspectives: value co-creation and value co-destruction.

The third chapter is indeed about the “positive” side of co-creation. In particular, the literature has privileged this type of research and there exists a wide variety of materials on the beneficial effects of customer involvement (Vega-Vazquez et al. 2013; Ennew & Binks 1999; Hunt et al. 2012). We will present the main perspectives, how researchers typically measured the positive effects of co-creation and the main managerial implications. In particular, the first section will present these benefits from the customer’s point of view, focusing significantly on customer satisfaction. Here, we will underline the importance of the relational and social side of satisfaction, that is, when customer satisfaction is significantly influenced by the perceptions of others. The second section will adopt the firm’s standpoint, by analyzing, in particular, the possibility to achieve or enhance customer loyalty and the potential improvement in the performance of frontline employees (Auh et al. 2007; Yi et al. 2011).

The fourth chapter, conversely, is on value co-destruction. So that, the perspective radically changes. After an overview over the main positive outcomes ascribable to customer involvement, we will present the other side of the coin. In particular, we will start from the two main causes of co-destruction identified by the literature on the topic: the *misuse of resources* (Plé & Chumpitaz-Càceres, 2010) and the *incongruence of practices* (Echeverri & Skålen 2011). We will observe that materials on co-destruction are scarce and that, consequently, the literature is still in its early stages. Afterwards, the focus shifts to the provider and to the employees, by proposing an overview over the main negative effects that customer participation could have on provider’s stress and perceived workload (Chan et al. 2011; Hsie et al. 2004).

The fifth chapter is the heart of the work and, thus, it is the heftiest: in-here, we present our suggestions. To do that, we will start with the main gaps and limitations currently existing in the literature. Indeed, these are the points where we started from. In particular, in reviewing the literature, we found out that, among the others, the analysis of the customer is much more privileged than the investigation of the provider, that there are still uncertainties in the definition

and in the distinction between co-creation and co-production and that most researches adopts a too optimistic perspective and does not properly consider the risks arising from customer participation. Afterwards, we will identify main co-creation's variables. Since the aim is to provide the instruments to measure the potential correlation between the customer involvement and the ultimate performance of co-creation, our focus is on these two constructs. Hence, firstly, we will present how the literature has typically assessed and investigated customer participation, highlighting that researches typically concentrated on the behavioral side, rather than on the intensity of the involvement. Secondly, we will propose different alternatives to measure performance, by pinpointing their potential benefits and their main drawbacks.

Chapter 1

THE CO-CREATION OF VALUE

- An introductory overview –

In the age of experience economy (Pine & Gilmore 1998) and in a global market, where services account for the majority of all economic activities, the customer plays an increasingly active role in the provision of services and in the production of goods. This is why, in the majority of articles and papers on these topics, the customer is now referred to as a “**co-creator of value**” (Vargo & Lusch 2004; 2006; Vargo et al. 2008; Grönroos & Ravald 2011; Prahalad & Ramaswamy 2004; Etgar 2008; Grönroos & Voima 2013).

The service industry is becoming more and more globalized and highly competitive; this makes service firms continually rethink their offerings to meet the expectations of a demanding customer portfolio (Chen et al. 2011).

In this scenario, organizations are progressively moving from selling goods and services to selling experiences; this transition, though, is not that immediate, because it has to take into account the implications arising from customer engagement. He or she is not just passively receiving the offering of a firm, but he or she is actively contributing to the creation of such offering.

As a matter of fact, customer engagement is not a new concept, even if nowadays is receiving the greatest attention. For instance, the term *prosumer* was introduced by Alvin Toffler in his essay “The Third Wave”, published in 1980. In its widely popular book, he predicted that the role of the consumer and that of the producer would eventually have merged in the future and the boundaries would have become more blurred.

Firms have started to engage customers in their value chain activities to attain a competitive advantage in the marketplace by creating something different, which, at the same time, aspires to fit the customer’s set of preferences. Indeed, in a market which tends to be more and more commoditized, customers look for uniqueness, for a service or a product that better reflects their needs and attitudes (Pine & Gilmore 1998).

Thanks to the increased amount of available information, the accessibility and speed of communication means made possible by social media and by the Internet in general, firms are able to better reach the customers and to interact with them. Of course, the type of engagement and the extent of such interactions vary from relationship to relationship.

Some firms, for example, choose *mass customization* (Joseph et al. 1993) by allowing the customer to modify some specific features of the goods or of the service he or she wants to purchase. Many big multinationals are adopting this strategy to please a heterogeneous customer portfolio and to succeed in the marketplace. Think about Nike and Dell: Nike, for instance, allows its customers to choose among a variety of different colors for the specific model of shoes they desire, through the so-called “NIKEiD program” (Piller et al. 2004).

Dell, in its sector, employs a special software to collect each customer’s desires and then translates them into real offerings (Joseph et al. 1993). At the same time, through an online platform available on the official website of the company, Dell’s customers can actually create their personal computer, by choosing among different designs, colors and technical features (Berman 2002).

Hence, under certain conditions, the customer could decide some precise characteristics of the offering (for instance the color, the shape or the fabric), which are typically planned upstream by the firm. However, in the end, only some selected key features change from product to product or from service to service: this is why it is called “mass” customization.

At the same time, other organizations decide to strongly engage their customers in the critical thinking, planning, design and even production of the goods or of the service, turning the customer in what could be defined as a “**partial employee**” (Mills et al. 1986). This situation is generally known as co-creation, and the customer is then deemed to be as a co-creator (Vargo & Lusch 2004). Logically, depending on the specific case, the relationship could take the name of co-design, co-development or co-production and the customer, accordingly, could be named after co-designer, co-developer and co-producer. In any case, this discussion will be addressed later on in this chapter.

Defining co-creation is not as straightforward as it may look like. The literature on this topic does not help very much, because of the diversity of perspectives brought in by scholars and academics (Heinonen et al. 2010; Grönroos & Ravald 2011; Prahalad & Ramaswamy 2004). Some scholars even tried to better organize this significant quantity of information coming from different sources; this is the case of the paper “Theory of value co-creation: a systematic literature review” by Galvagno and Dalli (2014).

However, even in a situation of information overload and heterogeneity of perspectives, some key points serve as cornerstones and are necessary to define value co-creation.

Firstly, one should focus on the meaning of value. Indeed, value co-creation assumes a specific connotation of the term value, which is utility value, or what is nowadays better known as **value-in-use**.

Secondly, we need to assume the so-called **Service-Dominant Logic**, as opposed to the Goods-Dominant Logic (Vargo & Lusch 2004; 2006; 2008), which will be both covered in the following paragraphs.

Finally, we should consider the importance of the customer and his or her key role in the creation of goods and services: the customer is not passive anymore, but he or she is an active participant in the process through the co-creation of value together with the firm.

These initial chapters will mostly highlight the active role the customer takes on in value creation. This does not mean that the customer is essential for value creation to take place nor that customer engagement always brings to better outcomes and performances. However, the majority of literature support this theory (Vargo & Lusch 2004; 2006; Vargo et al. 2008; Grönroos & Ravald 2011; Grönroos & Voima 2013). All of this aside, in reading the following chapters, bear in mind that also co-destruction happens, even if this matter seems to be mysteriously overlooked by literature (Echeverri & Skålen, 2011).

Hence, while the first part of this work will focus on what could be defined as the “bright side” of co-creation, the second part is mostly dedicated to the event or situation named after “value co-destruction”.

1.1. Origins and perspectives

In order to introduce and explain a complex theme as co-creation, the first indispensable distinction to be made is that between **value-in-exchange** and **value-in-use**.

Value-in-exchange refers to the once predominant **Goods-Dominant logic** (Vargo & Lusch 2004; Vargo et al. 2008): accordingly, value is created by the firm within the production process and it emerges through the exchange of the product or of the service for money or another kind of utility. Hence, value is represented by how much the customer is willing to pay. This perspective puts the firm in charge of the process where value is created, whereas the customer is deemed to be as a mere consumer. Plus, the customer is even perceived as a destroyer of value, that is to say, he or she is getting the product or the service and simply uses it, destroying what the firm has created before (Ramírez 1999). According to this perspective, the firm and the customer are two distinct and separate entities, which just interact during the traditional market transaction, but do not work together (Vargo et al. 2008).

The alternative perspective, now dominating in the literature, is the **Service-Dominant-logic**, according to which value is assumed to be value-in-use (Vargo & Lusch 2008). Here, value is created, or better extracted, during usage: then, the customer is the creator of value, but since

the product or the service is still produced or provided by the firm, the customer is deemed to be as a co-creator of value together with the firm. The roles of the two parties involved are not distinct anymore, because they create value jointly and reciprocally (Vargo et al. 2008). Jointly and reciprocally means that both of them are necessary to create value: the firm produces the goods or delivers the service, but value becomes evident only when the customer makes use of the goods or extracts benefits from the service.

In summary, even if the firm maintains a significant role in the process of value creation, the customer should be considered the core of the relationship, that is to say, the subject who makes value emerge from the process (Grönroos & Ravald 2011).

Moreover, according to Grönroos and Voima (2013, p. 136), “the focus is no longer predominantly on a customized bundle of products and services exchanged for a price. Instead, value creation becomes an on-going process that emphasizes the customer’s experiences, logic and ability to extract value out of products and other resources used”. Again, “the nature of value-in-use instead is the extent to which a customer feels better off (positive value) or worse off (negative value). [...] Value thus accumulates over time through experiences during usage” (p. 135). This means that the customer, after receiving the product or the service, experiences it over time within a specific context: value does not emerge from the mere usage of something. Customers are instead “more interested in the positive consequences embedded in their possessions or in the service activities they utilize” (Grönroos & Ravald, 2011, p. 8). For instance: the purchase and the resulting possession of a valuable painting is not itself a reason for value creation; instead, value emerges over time if the owner feels pleased in watching it or because he or she feels admired and envied by his or her friends (Ravald 2010).

From these considerations, we must observe that there is also evidence of another definition of value: the so-called “*value-in-context*” (Vargo 2008). Value-in-context, which puts its roots in the value-in-use concept anyway, emphasizes the role the surrounding context has on the value creation process.

Following this brief overview over the meaning of value, the next step is making sense of co-creation and understanding what co-creation entails and how does it typically work.

One of the first works on the topic is represented by the paper by Prahalad and Ramaswamy (2000), who introduced co-creation, with a particular emphasis on the role of the modern customer. Customers are more informed, more engaged and they definitely expect more from the market. Thanks to the increased information access, they could easily obtain information about firms, products, technologies and prices. Through the Internet, they gather around online

communities and share ideas, feelings and opinions, “without regard for geographic or social barriers” (Prahalad & Ramaswamy 2004, p. 4).

One of their most interesting contributions concerns the evolution of customer’s behavior and role in the last forty years, evolution studied from four point of views: the *nature of the exchange*, the *managerial mind-set of the firm in analyzing its customer portfolio*, the *interactions between the firm and the customer* and, finally, the *purpose and flow of communication*.

For the purpose of the present work, interactions are what really matter and the evolution of the customer’s behavior and role with respect to them could be summarized as follows:

- *From the 1970s to the early 1980s*, the interactions between the firm and the customer were substantially absent, except for traditional market researches and inquires to gain the knowledge necessary to manufacture products and provide services according to the market’s main trends.
- *During the 1980s and in the early 1990s*, firm-customer’s interactions began to increase thanks to the spread of help-desks and call centers or, generally, because of other types of support services, which allowed firms to gather relevant information about their products or services and gain feedback from customers.
- *During the 1990s*, firms started to implement new marketing instruments to understand their customers in deep and, consequently, to better analyze the market through the observation of lead users.
- Finally, *beyond 2000 and nowadays*, customers are co-creators of new experiences together with the firm (Prahalad et al. 2000).

The same authors provided the academia with a quite useful model to understand the key building blocks of co-creation from the firm’s perspective: the so-called “*DART model of value co-creation*”. First of all, one must bear in mind that, in co-creation, the distinction between production (the firm) and consumption (the customer) tends to disappear and that “customers engage in the process of both defining and creating value” (Prahalad & Ramaswamy 2004, p. 5). Following this, the DART model considers the following co-creation pillars:

- **Dialogue**: both sides interact with each other through appropriate communication channels;
- **Access**: it concerns information provision. Basically, the firm must guarantee to the customer the access to relevant information concerning the project;
- **Risk assessment**: firms need to inform their customers on the potential risks of co-creation, to make them fully aware of its potential side effects;

- Transparency: firms need to disclose information. They cannot allow themselves to keep secrets or to be unclear about prices, costs and margins (Prahalad & Ramaswamy 2004).

Another exemplar source in the literature is attributable to Vargo and Lusch, who, among the others, presented several papers on value co-creation, by defining its pillars and by introducing (and formalizing) the difference between Goods-Dominant (G-D) logic and Service-Dominant (S-D) logic (Vargo & Lusch 2004; 2006; 2008). As a matter of fact, it should be highlighted that the debate around the S-D and the G-D logic puts its roots in earlier contributions (Grönroos 1982; Normann & Ramírez 1993).

As you will see, the concepts of G-D and S-D logic are strictly related to the meanings of value-in-exchange and value-in-use respectively, as presented above. In talking about the Goods-Dominant perspective, one refers to the traditional models on value creation, which focus on the firm's output and on the price of the exchange.

The Service-Dominant logic arises from a service system logic, according to which value is created collaboratively in situations of mutual exchange.

The greatest difference among the aforementioned perspectives is represented by the role and the importance of resources. S-D logic focuses on *operant resources*, which are defined as those resources that act upon others, like skills and knowledge. G-D logic focuses on *operand resources*, i.e. those that an operation is performed on, hence typically goods and materials.

Another interesting distinction between the two perspectives concerns the roles of the customer and that of the firm within the process. As stated in the previous paragraph, according to the G-D logic, the spheres of activity of both parties involved are almost completely separate. Under the S-D logic, if one assumes value to be value-in-use, roles could be defined as follows: customers as value creators and firms as value facilitators (Grönroos & Voima 2013). It means that the firm creates only potential value, which is directed to the customers; only then, the customer could transform such potential value into real or actual value. This is why this process is also referred to as *value actualization* (Gummesson 2008).

In reviewing the difference between the S-D and the G-D logic, there is also evidence of another recent perspective in literature, which do not really criticize the aforementioned distinction, but adopts another approach, strongly customer-focused. This is the case of the so-called **Customer-Dominant logic** (Heinonen et al. 2010). According to these authors, researchers who support the S-D logic and its pillars are still not sufficiently customer-focused and their main point of analysis remains too firm-centric, somehow. They strongly assert that firms should put the customer in the center, not the service nor the goods nor the processes. This

arises from the strong marketing need to idolize the customer and put him or her at the heart of marketing functions and thoughts (Levitt 1960).

The point of difference with respect to the G-D and S-D logic (which, in this analysis, are conglomerated into the more general category named after “*provider-dominant*”) is that the C-D logic focuses not only on customer’s experiences and activities that are directly related to the service, but also, and mostly, on the overall experience, which extends beyond the single episode of purchase. That is to say, they purport a wider and more extended analysis of the customers’ on-going life, where value creation is strongly influenced by collective social forces (Verhoef et al. 2009; Heinonen et al. 2010).

In discussing about co-creation, among the others, interactions are something worth to be carefully analyzed. According to Grönroos and Ravald (2011), interactions are situations in which the interacting parties are involved in each other’s practices. That is to say, parties influence each other and both are actively involved in a dialogical process.

Grönroos and Voima (2013) distinguish between *direct* and *indirect* interactions: the former are called so, because the customers can actively intervene in the firm’s processes, by giving his or her opinion and by influencing the production process; here, parties “interact through an active and on-going coordinated, dialogical process” (p. 142). The latter (i.e. indirect interactions) refers to the situation, where the customer uses or consumes the service or the product, by interacting with the resources provided by the firm, but not with the firm itself. This is quite interesting, because the customer himself or herself (acting as a co-creator, co-producer or co-designer, depending on the circumstances) is a resource inside the firm’s production process and the firm can “use” him or her to develop products or services, which better reflect the actual demand in the marketplace.

At the same time, the firm also has the significant and convenient opportunity to influence the customer’s experiences and practices during usage, gaining powerful information about the customer’s needs and behaviors, which, in turn, if effectively used, could lead to customer’s satisfaction and, possibly, loyalty.

Echeverri and Skålen (2011) also give their opinion on this issue and underline the importance of interactions: complicated and poorly-managed interactions can lead to a co-destructive outcome.

In summary, Grönroos and Voima (2013) drafted the following model of value co-creation, which entails three phases:

- The first one is the **provider sphere**, where products and services are designed, developed, manufactured (back office operations) and delivered (front office operations);

- The second one is the **joint sphere**, where direct interactions between the customer and the firm occur: they co-create value;
- The third one is the **customer sphere**, where the customer, through usage, creates real value or value-in-use.

In analyzing this model, one can easily understand that both the customer and the provider spheres are characterized by an open and a close part (Grönroos & Ravalld 2011). The open part, for both parties involved, is represented by the interactive or joint sphere: the provider and the customer influence each other's practices and processes. The close part is represented by the value facilitation activity from the provider's standpoint and by the phase during which value emerges, from the customer's point of view.

Of course, the described stages shall not be considered linear: "value may be created in the different spheres at different periods of time [...]. An active customer may give input as a co-developer or co-designer, or even as co-manufacturer. Then the joint sphere widens, and the whole process starts directly in the joint value sphere. For example, value creation for the customer may begin through a joint development process" (Grönroos & Voima 2013, p. 140).

Authors	Main contribution in literature
Prahalad and Ramaswamy (2000, 2004)	<ul style="list-style-type: none"> • Definition of co-creation • DART model of value co-creation
Vargo and Lusch (2004, 2006, 2008)	<ul style="list-style-type: none"> • Formalization of the difference between G-D and S-D logic
Grönroos and Voima (2013)	<ul style="list-style-type: none"> • The model of value co-creation: the value creation spheres
Table 1 – Contributions in the literature about value co-creation: summary of the most relevant sources	

1.2. Co-creation, co-production, co-design: are they synonyms?

It is not straightforward to distinguish between *co-creation*, *co-design*, *co-production* and *co-development*. In reviewing the literature, sometimes these terms are used as synonyms, others they are identified as separate constructs and so, they are given different meanings. Therefore, if for a certain academic (Etgar 2008), co-production is a particular type of co-creation that

occurs when the customer intervenes in a particular phase of the value-chain activities, in the opinion of others (Chathoth et al. 2013), co-production is not co-creation or a categorization of it, but it refers to the G-D logic and, for this reason, it should be definitely distinguished and separated from any argumentation concerning co-creation.

For instance, according to the early studies on value co-creation and namely, according to the papers written by Vargo & Lusch (2004, 2006, 2008) and the literature which follows their line of reasoning (Grönroos & Ravald 2011; Grönroos & Voima 2013), co-production, and thus even co-design and co-development, are different from co-creation. In particular, such diversity attains the value meaning. According to this part of literature, the comprehensive production process is not part of the value creation process, because, as postulated in the previous paragraphs, value concretely emerges during the consumption or usage phase. Value is actually relieved by the customer; the production by the firm creates only potential value, which is then “actualized” by the consumer (Gummesson 2008). Given this, one should theoretically assume that co-production is not a synonym of co-creation and that, accordingly, it is a completely different practice.

Things are not that easy, though. Indeed, it is not simple to judge if they truly are synonyms, if one (co-production in this case) is a dimension of the other (i.e. co-creation) or if they are associated with different theories.

Indeed, to further stress this uncertainty, in one of their first papers about co-creation, Vargo & Lusch (2004) stated that the customer is always a **co-producer** of value. Later on, since they agreed on the fact that the word “production” is not in accordance with the Service-Dominant logic and with the concept of value-in-use, they changed their popular expression in “customers are always co-creators of value” (Vargo & Lusch, 2008, p. 8). However, the fact remains that, initially, they used the term co-producer.

Nevertheless, Vargo and Lusch (2006) acknowledge that, even if the two terms should be defined as separate constructs, co-production is a subordinate concept to that of co-creation of value, because consumption activities are not separate from production activities but connected to them.

To further clarify, co-production refers to the production process: this happens, for instance, when the customer is involved in the manufacturing stage of a particular product. Conversely, co-creation should be understood as a more general concept: it happens when the customer is no more a passive entity, but he or she is actively involved in the process of value creation in general. The focus of co-creation is in fact value creation. The majority of papers on co-creation share this idea (Grönroos & Voima 2013; Etgar 2008; Vargo et al. 2008; Vargo & Lusch 2004;

2006; 2008): *co-creation happens **always**, because value ultimately emerges from the process only when enacted by the customer during usage or consumption.*

On the other hand, co-production, co-design and co-development happen when the customer takes on the active role in the production, design and development phase respectively.

For instance, in discerning between co-creation and co-production in the service industry, Grönroos and Ravald (2011) confirm that co-production happens when customers engage themselves in the production process and become actual participants in such process. The same is shared by Ertimur and Venkatesh: “**co-production refers to participation in the creation of the core offering itself, while co-creation of value represents a higher order concept. [...] Yet, both of these concepts illustrate that the consumer is endogenous to the value creation process**” (Ertimur & Venkatesh 2010, p. 256).

According to Etgar (2008), for instance, the customer may be engaged in one or more of the five stages, which are part of the firm’s typical production process: the initiating phase, the design phase, the manufacturing or construction phase, the assembly phase, distribution and logistics and, finally, the consumption phase. From this perspective, it is quite easy to advance the hypothesis that co-design is itself simply a sub-category of co-production, being design a particular stage of the firm’s production process. Anyway, these stages will be better described in the next paragraph, which will be specifically dedicated to co-production.

The academia should meditate on the definition of these constructs, in order to minimize the risk of misunderstandings. In the words of Grönroos and Ravald (2011, p.6): “It is claimed that customers are always **co-creators** of value, but no thorough conceptual elaboration has been made on what this really means”.

These considerations will be the object of a dedicated chapter, whose purpose is the identification of the most significant gaps and limitations currently affecting the literature about co-creation.

Before concluding, another point needs to be clarified. In everyday language, co-creation or co-production can be mistaken with other marketing practices such as the customization of products or services. To be fair, the logic behind them is the same: the customer is involved in the creation of a particular product or service, the customer is involved by the firm or, again, the customer decides how the service or the product should be shaped. According to some authors, firms use customization to design a product or a service that suits a particular customer’s need (Prahalad et al. 2000). Customization is particularly spread over the Web, where consumers are allowed to customize a variety of products and services, typically some parts of them, simply choosing among a certain menu of features that has been decided upward

by the firm. According to the same authors, personalization, here understood as co-creation, is something more, because the customer becomes a co-creator of the content of his or her experiences, thus increasing the degree of active engagement in the process.

Etgar (2008) provides a quite good explanation of customization, in relation to co-production, more comprehensive than the previous one. He recognizes that co-production and customization are tightly linked and both refer to what is called “one-to-one marketing”. His contribution in this sense concerns the extent of the information provision: to achieve customization, it is indeed sufficient that the customer conveys only the relevant information about his or her preferences, according to what the firm is currently offering and according to the particular range of options. The firm, then, gathers all these relevant information, designs and manufactures the product according to the customer’s needs. “Such a strategy demands only marginal use of consumer operand and operant resources, does not require that consumers learn new skills, nor does it expose them to the risks of poor self-performance in the process” (Etgar 2008, p. 98). What does it happen then? The major risk with customization is mismatching, because of the potential transmission of wrong or inaccurate information about preferences, thus leading to products or services which, in the end, do not fit the customer’s needs.

In the end, this author sees co-production as a strategy or a mean to achieve effective customization, because, being the customer more involved and engaged in the process, the risk of the aforementioned inefficiencies in the information provision process, could be potentially lowered.

1.3. Focus on co-production

For the scope of the present research, an overview on co-creation, on value and on what is known as the Service-Dominant logic was necessary to understand the overall picture and then get to the point. Nevertheless, it is essential to deserve a dedicated section of this work to co-production, to investigate the mechanisms of the situation where the customer is strongly engaged with the firm in the creation of something new.

Unfortunately, co-creation in general is much more studied than co-production and the quantity of materials available on the latter is not sufficient to offer a more extensive literature review on co-production.

The meaning of the term has been stated in the previous paragraph; the following section will offer an overview on the potential stages of co-production.

1.3.1. *The stages of co-production: a useful model*

Before getting to the actual phases of the production process, where the customer could really intervene as a co-producer, one needs to investigate and understand what actually brings the customer to be and to behave as such, what pushes him or her to establish this particular relationship with the firm, thus investing time, strengths and, in some cases, even money and other tangible resources.

A theoretical study on this matter is provided by Etgar (2008), who wrote a paper on the co-production process, explaining what encourages the customer to engage in a co-productive project and how this process is typically articulated.

According to the author, the model is composed by five main stages, which are formulated as follows: development of antecedent conditions, development of motivations, calculation of the co-production's cost and benefits, activation and evaluation.

- During the first phase (i.e. **development of antecedent conditions**), some prior conditions need to be established. In the opinion of the author, if such conditions do not exist, then the customer should not be engaged in co-production, because he or she is not motivated enough to do that. He identifies a variety of such preconditions:

the first group is represented by the *macro environmental conditions*, which are in turn divided into economic (i.e. in more mature economies, where commoditization happens more often, the customer attaches greater value to personalization), cultural (i.e. modern customers highly value the experiences, which make them empowered and creative) and technological preconditions (i.e. the sectors of the economy where technological changes have allowed rapid and low cost interactions between the firm and its customers prove to be a fertile ground for co-production).

After macro environmental conditions, one needs to analyze the customer, the product and the situation. These are the other categories of preconditions.

Consumer-linked factors are represented by the bundle of characteristics of a certain consumer: some could be better co-producers than others, because of their knowledge, skills and dialogical capability.

Product-linked factors means that co-production usually takes place when the customer knows that the product could be effectively personalized and so, it could be easily distinguished from other brands or other goods of the same category.

In the end, *situational factors* mainly refer to the nature of the relationship between the customer and the firm: here, the key players are represented by the points of interactions, the visibility of the operations, trust and cultural compatibility.

- The second stage of the model is represented by the time frame during which the customer become motivated (i.e. **development of motivations**). The author identifies different drives that might push the costumer to engage in a project like this and the main are: *economic drives* (e.g. reducing the risk to receive inappropriate products), *psychological drives* (e.g. the desire to “play” and to live a different experience) and *social drives* (e.g. seeking of status).
- The third stage concerns the **evaluation of costs and benefits** arising from co-production. Here, the customer simply considers the economic and non-economic implications of co-production that he or she had contemplated in the previous phase. He or she assesses if co-production could be beneficial for him or for her, weighting costs and benefits arising from the project.
- The fourth stage is called **activation** to identify the core part of co-production, during which the customer, after an evaluation of potential costs and benefits, decides to intervene in one or more of the typical value chain activities performed by the firm. Here, Etgar identifies the following sub-phases:
 1. *The initiating phase*: it involves the definition of the need to be satisfied;
 2. *The design phase*: the features of the service or of the product are planned;
 3. *The manufacturing/construction phase*: the product or the service is actually produced;
 4. *The assembly phase*: only if the type of product requires it after manufacturing;
 5. *Distribution and logistics*: the customer is involved in the management of the flow of goods, services and information and their storage;
 6. *The consumption phase*: typically related to after sale support.
- The last phase is called **evaluation**: simply put, the customer compares the effectiveness of the co-production strategy with alternative strategies, which do not entail customer involvement.

No.	Co-production phase	Meaning and determinants
1	Development of antecedent conditions	<ul style="list-style-type: none"> • Macro environmental conditions • Customer-linked factors • Product-linked factors • Situational factors
2	Development of motivations	<ul style="list-style-type: none"> • Economic drives • Psychological drives • Social drives
3	Evaluation of costs and benefits	The customer assesses the overall costs and benefits arising from co-production.
4	Activation	<ul style="list-style-type: none"> • Initiating phase • Design phase • Manufacturing phase • Assembly phase • Distribution and logistics • Consumption
5	Evaluation	Comparison with alternative strategies.

Table 2 – Summary of the “five-stage model” in co-production (Etgar, 2008)

This model represents a quite good descriptive instrument to understand the co-production process, even if co-production, in reality, can occur in a variety of ways and stages are not linear at all. Anyway, it is one of the most comprehensive work to understand how it typically occurs, from the development of motivations to the actual engagement of the customer within the production process.

Another specification could be made with reference to the stages of production where the customer could intervene and to their partition. In literature, one finds a variety of works about value chain activities and how they should be distinguished one from the other. Some focus their attention on the manufacturing phase, dividing it in more sub-phases, others do not even consider the consumption or usage phase and concentrate much more on the generation of the idea, like Sanders and Stappers (2008), who divides co-production in this way: pre-design, idea generation, concept generation, prototype and product creation.

Another quite good partition of the production activities is included in the book by Ullman “The Mechanical Design Process”, which, though being an engineering manual, gives its readers an accurate explanation of the phases of production of complex products: product discovery, project planning, product definition, conceptual design, product development and product support (Ullman 1996).

1.4. Customers as partial employees and providers as value facilitators

In analyzing co-creation, one must move away from the traditional meaning ascribed to the words “customer” and “firm” and think in different terms. Indeed, under co-creation, the two parties involved, still being a customer and a firm, establish a different type of relationship. The idea is that in co-creation, the interaction between parties should potentially generate higher value than an ordinary market transaction, during which the seller and the buyer meet briefly, exchange a product or a service and then go their separate ways. Co-creation typically entails a longer relationship between the two (or more) subjects, which could be characterized by more or less complex interactions and which entails a defined distribution of roles (Wikström 1996).

In co-creation, the customer is deemed to be as a **partial employee**, while the firm, according to the majority of literature, takes the role of **value facilitator**.

The position of the firm is quite simple to understand and puts its roots in the literature about co-creation and value-in-use: according to Grönroos and Voima (2013), the firm is a co-creator of value together with the customer; accordingly, the potential value that the firm creates during the production process must be delivered to the user, thus “by providing potential value, the firm is a facilitator of value for the customer” (p. 145). Of course, the supplier maintains its core role. It is responsible for the production process and manages back-office and front-office activities: “the supplier produces resources as input into its customers’ processes of value creation” (Grönroos & Ravald 2011, p. 6). Most importantly, without the supplier there could not possibly be value creation, because it is indeed the subject who produces, creates, invents or provides the outputs that, only then, are integrated in the process of value creation by the customer (Normann & Ramírez 1993; Grönroos & Ravald 2011). This stated in terms of “pure” co-creation, where real value only emerges during usage.

However, this particular role is confirmed also by that part of the literature which focuses more on co-design and on co-production, for example by Sanders and Stappers (2008), according to whom the designer (or the firm) “*facilitates* people’s expressions of creativity at all levels” (p. 14), by leading customers, by guiding them through the adaptation inside the organization, by providing scaffolds and offering clean slate for creativity. This, in turn, should increase the chances of value creation, because the customer is allowed to take part in a unique experience: he or she feels part of a wider group, is able to express his or her opinions and, most of all, to influence the firm’s decisions. This should eventually decrease the discrepancy between customer’s expectations about the service or the product and the actual outcome.

The same is shared by Wikström, who, though not explicitly using the word “facilitator”, defines the firm as a complement of the knowledge, resources and equipment offered by the customer (Wikström 1996).

In the end, one must observe that this role of “value facilitator” grants the firm the extraordinary possibility to influence the customer’s consumption experiences, through well-managed ongoing interactions (Grönroos 2006). Connectivity, indeed, is what matter the most in co-creation.

The role of the customer is a little more complicated, because many variables should be considered. Furthermore, there are more studies on this topic, in particular on customers who act as partial employees of a certain organization (Groth 2005; Mills et al. 1986; Hsieh et al. 2004; Keh & Teo 2001; Kelley et al., 1990).

Partial employees are defined as temporary participants in the service delivery process of service organizations (Kelley et al., 1990). They are named after partial employees because they typically contribute knowledge and resources in the production process, just like ordinary employees, but without being hired by the firm.

Of course, it is easy to differentiate between partial employees defined as above and the ordinary employees of a certain organization. Apart from the most obvious differences, such as the type of contract, the length of the collaboration and the type of tasks, which, typically, are clearly defined for the employee, but it is not always the case for the customer within co-production settings, other types of differences are subtler. One of these is underlined by Mills *et al.* (1986) and concerns the type of orientation: the employee is oriented toward production, he or she is contributing undifferentiated time and effort to produce something for the firm he or she works for. The customer, acting as a partial employee, is oriented toward consumption. Such differentiation has interesting implications in practice; indeed, the customer, is not oriented toward production, but toward the outcome of such production process.

The same authors propose a model to describe the participation of customers in complex service settings, which is worthwhile to be included in this work. The stages of the model are the following: pre-encounter, initial encounter, contract negotiation and renegotiation and production role acquisition.

- During the first stage (i.e. *pre-encounter*), the predispositions and skills of the customer play a key role, together with the sector of activity and the complexity of the service or of the product. That is, “the more complex the production-related skills and knowledge required of the client, and the greater the extent and length of client inclusion, the more resources one would expect to be directed at the selection of clients with the higher a priori

ability to perform within the service operation” (Mills et al. 1986, p. 729). Another key role in this phase is played by organizational socialization, especially when the firm has a limited potential to screen future co-producers: organizations need to understand the importance of this practice to better engage costumers before real co-production starts and make them aware of what they are going to do together.

- The second stage is represented by the *initial encounter*, during which the contact employees of the organization play a determinant role. This phase is delicate too, because the customer is not clearly aware of the role he or she has to perform within the firm. This situation could lead to potential inefficiencies, such as conflicts, agency costs and stress of service providers, who are in charge for the preparation of the customer for the role of co-producer.
- The *negotiation phase* itself depends on the degree of role readiness of the customer: if role readiness is low, the negotiation of the contract will be more complicated than the situation where role readiness is more significant.
- In the end, the role is actually acquired (i.e. *production role acquisition*), when everything is defined through a contract or a less formal agreement. These authors suggest that the work environment should be spontaneous and foster creativity, because it could eventually lead to enhanced customer satisfaction.

1.5. It looks easy, does it really is? Co-creation’s main challenges

It is not difficult to understand that value co-creation is a practice that should be managed carefully by firms. It involves a variety of challenges and subtle aspects that could be underestimated. More and more, firms need to create business models that are effectively capable of embracing co-creation; these business models should integrate the provider’s processes with those of the customer, to make co-creation successful (Ravald 2010).

Most firms think of co-creation as something extra-beneficial, because of its high potential for customer satisfaction and, hopefully, retention. This could indeed happen, but an emerging part of the literature (Echeverri and Skålen, 2011; Smith 2013; Plé & Cáceres 2010) shows that not only co-creation happens, but also co-destruction of value takes place, if the organization is not ready to manage interdependencies and coordination troubles and if the interactions are managed poorly.

It would be potentially impossible to list all the challenges and the eventual problems, which could arise within co-creation arrangements, because, of course, each relationship has its own peculiarities.

Anyway, major challenges concern the increased complexity to be managed, because of higher interactions, diversity of perspectives, uncertainty and potential agency costs.

The coordination efforts and the complexity of the interactions depend on the type of co-creation relationship, whether it entails significant interactions or minimum interactions, and on the type of project concerned.

With reference to this, Hoyer *et al.* (2010) identify four major impediments to the co-creation process. First of all, *transparency-related challenges*: sometimes the firm is not completely willing to disclose some information about production or some secrets that could be very important for co-creation to be effective and to perform fine. If the customer is not completely aware of how to intervene within the co-creation process and/or type of resources he or she should contribute and/or does not know relevant information to fulfill his or her role smoothly, co-creation could lead to inefficiencies.

The second challenge is tightly linked to the first impediment and it is represented by those issues concerning the *ownership of intellectual property*. This could obstruct co-creation if, for instance, the firm expects to retain full ownership over its patents and know-how.

The third one is quite interesting, especially for its practical implications, and it is known as *information overload*: during co-creation, both the customer and the firm come up with heterogeneous ideas, which, though being a potential source of innovation and creativity, could lead to job stress and lengthy processes.

Finally, customers' ideas, even if innovative or breakthrough, could be infeasible because, especially for professional services or complex categories of products, customers do not own the necessary knowledge to actually implement the product or the service. Or maybe, the customer simply lacks the required skills to perform his or her tasks correctly.

In adopting a more general perspective, the major risks of co-creation are typically represented by the diminished control over the outcome and over the process in general (Steen *et al.* 2011), which in turn increase the uncertainty for the firm, and the challenges posed by coordination requirements, which of course increase with the number of co-creators included (Neeli Bendapudi & Leone 2003).

In summary, challenges may have different origins and may entail different implications. The most important aspect is that organizations must endow themselves with an efficient

coordination apparatus that is likely to be able to face uncertainty, complexity and higher customer engagement.

Chapter 2

THE CUSTOMER AS CO-CREATOR

- When the customer takes on the active role –

Recently, the part of the literature specialized in service marketing and experience economy has been addressing more in depth the main characteristics, the determinants and the consequences of the customer behavior as a co-creator of value or as a co-producer within the context of service provisions (Wikström 1996; Neeli Bendapudi & Leone 2003; Hsieh et al. 2004; Groth 2005; Schneider & Bowen 1985; Mills et al. 1986).

In the previous chapter, the key features of customers as partial employees have been introduced, with a particular attention to their differences with respect to ordinary employees and their improved control over value-chain activities.

The present chapter will examine in depth the behaviors of customers within a co-creation relationship; the literature, in this sense, has focused greatly on the causes which bring customers to actively participate in co-creation projects and, most of all, how they should take part in them in order to achieve positive outcomes (Etgar 2008).

In the first place, this chapter will examine and explain the two main types of customer behaviors, which are typical within a context of co-creation, namely the **customer participative behavior** and the **customer citizenship behavior**. These two broad categories of behaviors, whose analysis and research puts its roots in the organizational behavior theory, could constitute a helpful tool for managers and, in general, organizations to better understand the role of partial employees and how to involve them effectively to achieve improved performance and satisfaction.

In the second place, the chapter will offer an explanation of one of the major instruments organizations can use to effectively involve customers in their activities and to facilitate role-understanding, that is named after **organizational socialization**.

In the end, a brief paragraph is dedicated to the so-called “**customer dysfunctional behavior**” which, though not sufficiently investigated in the literature, is a necessary corollary to complete the discussion over the customer as co-creator.

2.1. Customers as “partial employees”: customer participative and citizenship behavior

As introduced in the first chapter, within a co-creation or a co-production framework, customers are deemed to be as partial employees; this means that they are considered part of a wider organization, which extends beyond its traditional boundaries.

Some academics, to better analyze and comprehend the determinants of such particular conduct adopted by customers, extended the field of organizational behavior theory used to study the employees' behavior to customers as partial employees (Groth 2005; Yi & Gong 2008). In this sense, organizational behavior theory distinguishes between employee's required in-role behavior and employee's voluntary extra-role behavior (Bienstock et al. 2003; Graham 1991; LePine et al. 2002; Smith et al. 1983). The difference is quite simple: in-role behaviors refer to the task performance, so that they are necessary to successfully complete the job. Extra-role behaviors, also named after organizational citizenship behaviors, are neither expected nor expressly required by the task or by the role of a certain employee (Groth 2005).

The last author does an excellent job in explaining why these set of theories and arguments could be easily extended to customers. In particular, just like the employee's behavior, the customer's behavior can be divided in two main categories: customer in-role behavior (that is, **customer participative behavior**), which includes all those ranges of conducts required for the successful service or product completion and customer extra-role behavior (that is, **customer citizenship behavior**), which is not required for the successful service completion and it is performed at the sole discretion of the customer.

According to Groth (2005), organizations should be able to acknowledge the importance of citizenship behaviors, because of their recognized capability to enhance the service or the product quality and, in wider terms, the efficiency of the entire organization.

The same author identifies three main types of customer citizenship behaviors, which have been shared, used and improved by other academics in their papers on the topic (Yi & Gong 2008; 2013; Vega-Vazquez et al. 2013; Ennew & Binks 1999): providing feedback to the organization, helping other customers and recommending.

To provide feedback literally means to give information back, both positive or negative, to the organization so as to improve the service or product delivery process in the long run. In this sense, customers find themselves in the ideal position to provide suggestions to the enterprise, because they experience or use the service or the product and, given that, they know what should be improved and what should eventually be modified.

The second dimension is named after “*helping other customers*” and it is typically linked to personal attitudes such as altruism. It consists of giving help to other customers (or to

employees) in complicated situations. Unlike the role of employees, the role of customers is less defined and fixed, placing customers in a situation that can require spontaneous help from other customers.

Finally, the last type of citizenship behavior is represented by the act of *recommending* the business to other people without having a personal interest involved in the company; this is typically connected to concepts like customer loyalty and evangelism (McConnell & Huba 2004).

As anticipated before, the paper by Groth (2005) is not the only one that covers this topic and analyses customer citizenship behavior (as opposed to customer co-production behavior or participative or in-role behavior).

For instance, Yi and Gong (2008) wrote an article to assess the potential effects of customer participative and citizenship behavior on customer satisfaction and commitment. In order to perform that, they used the same categorization adopted by Groth and they added another range of behaviors, which is poorly explored in literature, that is represented by customer dysfunctional behaviors. Furthermore, the same authors, in another paper, better investigated the determinants and features of customer behavior, by ideating the so-called “Yi and Gong scale” (Yi & Gong 2013), which will be extensively treated in the following paragraph.

To conclude, we should ask ourselves what brings the customer to behave in some way or in another, what makes him or her behave correctly and respect the boundaries of his or her role, the reasons why he or she starts to adopt disruptive behaviors. In brief, we should ask ourselves which are the causes of customer participative and customer citizenship behavior.

According to Groth (2005), the first type of conduct is implemented as a consequence of customer socialization, motivation and role clarity, whereas the second type of behavior is a consequence of customer satisfaction and of the customer’s perception of justice.

Firstly, *customer socialization* means that customers, in order to become effective co-creators, need to acquire the knowledge and the skills that are required and necessary to perform their tasks within a co-creation framework.

Secondly, customers must be *motivated* and see a personal benefit in engaging in the project. Finally, and linked to socialization, they must bear in mind the set of tasks they are going to perform (i.e. *role clarity*) and they must be acquainted with their role inside the organization.

Customer citizenship behavior is a voluntary behavior which is said to be caused by satisfaction and justice perceptions.

Satisfaction with the surrounding environment, with the relationships inside and outside the organization and with the job they have to perform, all together make the customer willing to

engage in discretionary behaviors, such as giving positive recommendations, providing feedback and becoming altruistic.

Finally, when customers perceive that the outcome they received is fair (distributive justice) as the procedures adopted in the decision-making process (procedural justice) and the behaviors of decision-makers (interactional justice), they are more willing to engage in voluntary positive behaviors.

2.1.1. The Yi and Gong scale to measure customer behaviors

Following the arguments proposed in the previous paragraph, which are included in the researches by Groth (2005) and Bove *et al.* (2009) on the differentiation between customer in-role and extra-role behavior and on their antecedents and determinants, Yi and Gong developed a tool to assess the effects of customer behaviors within co-creation (Yi & Gong 2013).

The main aim of their work was to create a valid instrument for enterprises to detect weaknesses and strengths of customer value co-creation behavior. It could also constitute a valuable tool to identify positive customer performances and reward them, thus enhancing motivation and the organization's overall performance.

The scale resulting from their work could be potentially used in all types of service industries, even if their research investigated only four types of sectors. Moreover, their paper has the merit to provide a more thorough explanation and a more accurate partition of customer behaviors within co-creation.

As postulated before, customer participative behavior (i.e. customer co-production behavior) and customer citizenship behavior follow different patterns and have different determinants or antecedents. It is now straightforward that the first one is necessary to engage in co-creation, whereas the second one is voluntary and can even be absent.

Yi and Gong performed their research in the following manner: these two types of behaviors, taken as two higher-order factors, are considered as multidimensional concepts, thus consisting of several dimensions. That is, customer participation behavior includes *information seeking*, *information sharing*, *responsible behavior* and *personal interaction*; customer citizenship behavior consists of *feedback*, *advocacy*, *helping* and *tolerance*.

With respect to the previous study of Groth (2005), the present article better analyses the different components of the two ranges of behaviors. The main differences and improvements are the following: customer participative behavior is now split into four dimensions (which has

not been done before); customer citizenship behavior is added a new dimensions called “*tolerance*” and the previous “giving recommendations” is synthetized in “*advocacy*”.

Therefore, here follows a brief explanation of the four dimensions of customer participative behavior:

- *Information seeking* is necessary for the customer to clarify service or product requirements and to satisfy other cognitive needs (Kellogg et al. 1997). First of all, additional information decreases uncertainty. Second of all, customers are more aware of their role and, as a consequence, become more integrated inside the organization.
- *Information sharing* is essential to guarantee an effective performance of the tasks: employees and customers need to exchange relevant information about their role and their needs, respectively.
- *Responsible behavior* means that the customer must be aware of his or her duties and responsibilities and, most importantly, must accept and follow the employee’s directions (Bettencourt 1997).
- Finally, *personal interaction* refers to dimensions such as courtesy, friendliness and respect between the parties involved. The more pleasant and positive the working environment, the more likely customers will engage in co-creation activities (Lengnick-Hall et al. 2000).

As far as concerns customer citizenship behavior, feedback, advocacy (previously named after “making recommendations”) and helping have been already described in the previous paragraph. Yi and Gong added a fourth dimension called *tolerance*, which is defined as follows: “tolerance refers to customer willingness to be patient when the service delivery does not meet the customer’s expectations of adequate service, as in the case of delays or equipment shortages” (Yi & Gong 2013, p.1281). Tolerance, here, is clearly linked to commitment and loyalty: the customer is so close and emotionally attached to the organization that he or she is ready to “forgive” any kind of mistake.

These authors did a great work in classifying all these dimensions and in building their scale, which has been tested for reliability and it has proved to be reliable and valid.

This scale has also been used in following researches to test if there exists a positive relationship between customer behaviors in co-creation and the customer’s level of satisfaction with the service (Vega-Vazquez et al. 2013).

2.2. The role of organizational socialization: how to make customers effective co-creators

Organizational socialization is defined as the “process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (Van Maanen & Schein 1977, p.211).

The concept of organizational socialization, as defined above, could be extended to customers, using the term “**customer socialization**”. Hence, customer socialization is defined as the mean through which customers acquire the knowledge and the skills necessary to adequately perform the tasks required during co-creation. The most important aspect is that, even if customers do not actually see themselves as members of a certain organization, they have to be treated by the organization itself as organizational members. From this, such process of socialization must come from the organization, which should endow itself with proper mechanisms and a particular structure to facilitate the understanding of customer’s tasks (Kelley et al., 1990).

According to Kelley *et al.* (1992), there exists a considerable variety of socialization techniques available and some of them are: to train customers and to offer incentives to effectively communicate them the role they have to take on as co-creators, the observation of other customers who are already integrated, rule-learning and the use of organizational literature.

The empirical researches conducted by the aforementioned academics demonstrate that customers, which have been socialized more effectively by the organization, become more efficient co-creators, thus yielding benefits both for the customers and for the organization itself.

The implications of organizational socialization within the customer sphere are divided in two main categories: behavioral and affective outcomes. This distinction has been introduced by Feldman (1981) in the analysis of organizational socialization’s consequences on employees, but it could be easily employed also in studying customers.

It is straightforward that the process of organizational socialization affects, or better, influences the behaviors of individuals and, in this case, of customers. Indeed, customers who have been socialized, that is they have undergone a process of rule-learning and adaptation enacted by the organization, should have a more accurate perception of what they are working for, how they should perform their task and what type and how many resources they should contribute to the project.

While these behavioral outcomes are easier to understand, affective outcomes are multidimensional and can take a variety of forms. Kelley *et al.* (1990) divide them into organizational climate for service, motivational effort and direction, organizational commitment and satisfaction.

Firstly, *organizational climate* refers to the set of descriptive characteristics about the service delivery and the service quality, which allows the customer to differentiate the organization from the others and to make expectations about the product, the service and about the experience he or she will eventually get.

Secondly, *motivational effort* is defined as the amount of effort exerted in performing a task. *Motivational direction* is defined as “the appropriateness of the particular activities into which that effort is directed and maintained” (Katerberg & Blau 1983, p.249). By learning and by being socialized, customers are more aware of their tasks and have more accurate role perceptions, which are likely to lead to increased motivation and thus to enhanced service quality.

Thirdly, organizational socialization could also lead to stronger forms of affective outcomes like *commitment*: in this case, the customer identifies with the organization and he or she is particularly involved with it.

The last potential affective outcome is represented by *customer satisfaction*. According to Kelley *et al.* (1990), since satisfaction is typically defined as the difference between customer’s expectations about the product or the service and the service or the product he or she actually receives, organizational socialization constitutes a powerful mean to bridge such gap and improve the congruence between expectations and reality. Indeed, since the customer should learn about his or her role inside the organization, he or she would be able to develop more accurate expectations about the product or the service, thus decreasing the likelihood of dissatisfaction.

2.3. Customers and risky dysfunctional behaviors

Customer participative and citizenship behaviors favor the good trend of a co-creation relationship, but what if the customer starts to behave abusively? What if he or she overcomes the boundaries of his or her role by negatively affecting the relationship with the provider and, in the end, the quality of the outcome? Customer dysfunctional behaviors are poorly investigated in the literature; indeed, there is a consistent scarcity of papers and researches on them in the field of value co-creation theory.

Indeed, research on firm-consumer interactions mostly assumes that customers always (or almost) behave correctly (Yi & Gong 2013; Vega-Vazquez *et al.* 2013; Ennew and Binks 1999; Groth 2005).

However, there is also evidence that it is not uncommon for customers to engage in negative and deviant types of behaviors (Reynolds & Harris 2009; Fullerton & Punj 1997).

Therefore, some academics are now addressing the study of customer negative behaviors and the co-destruction of value (Smith 2013; Echeverri & Skålen 2011).

As postulated many times throughout this work, customers as co-creators are conceived as partial employees and, thus, they have to be perceived and treated as real members of a particular organization by the organization itself.

Following this line of thought, as done above, we can begin from the definition of the employee's dysfunctional behaviors, defined as those behaviors that harm the organization and/or its members (Spector et al. 2006). These authors also identify five sub-dimensions of the broader category of dysfunctional behaviors: abuse, production deviance, sabotage, theft and withdrawal:

- *Abuse* is represented by those set of behaviors aimed to hurt physically or psychologically co-workers;
- *Production deviance* is the voluntary deviation from required tasks;
- *Sabotage* consists of the destruction or defacement of the employer's properties;
- *Theft* is the act of stealing something which belongs to organization, from tangible properties to intangibles;
- *Withdrawal* refers to those behaviors that restrict the amount of available working time.

Therefore, the aforementioned categories of behaviors could be extended to customers. This is what Yi and Gong (2008) did in their research, where they confirmed that customers, as ordinary employees, could engage in dysfunctional behaviors such as, among the others, resistance, aggression, victimization, theft and fraud.

Another definition of customer dysfunctional behavior is provided by Lovelock (2001), who defines it as “[...] thoughtless or abusive that causes problems for the organization, its employees, and/or other customers” (p. 73).

Among dysfunctional, abusive and deviant behaviors, we could include the so-called *opportunistic behavior*. The idea of opportunism within co-creation is shared also by its pioneers: according to Prahalad and Ramaswamy (2004), the customer and the provider, within co-creation, are both collaborators and competitors, because they collaborate in the creation of value, but they actually compete for its extraction.

Opportunism, in a relational contract as co-creation, is defined as “self-interest seeking with guile” (Williamson 1975, p.6), contrary to the main principles of the relationship it refers to (Wathne & Heide 2000). Indeed, opportunism, within co-creation and co-production, is also

framed in terms of breach of the set of mutual expectations between the provider and the customer (Ertimur & Venkatesh 2010).

Such opportunism may be active or passive: passive opportunism normally takes the form of withholding relevant information and evading obligations; active opportunism is more about information distortion and the violation of principles, norms and rules.

Disruptive behaviors can thus take a variety of shapes. Moreover, bear in mind that dysfunctional behaviors are not ascribable solely and exclusively to the customer, but, especially in service settings, “employees routinely behave in a manner that can be described as either deliberately deviant or intentionally dysfunctional” (Harris & Ogbonna 2006, p.543). Unfortunately, customer dysfunctional behavior within co-creation is not receiving the proper attention from the academic world and the matter remains almost investigated. It should definitely deserve a higher response, given the prevalence of such behaviors in specific service contexts and because of the negative consequences on the organization from the point of view of increased costs.

Chapter 3

THE BRIGHT SIDE OF CUSTOMER INVOLVEMENT

- Does co-creation bring to better outcomes? –

Co-creation, co-production and co-design are generally framed in positive terms. Indeed, the majority of literature on the topic has worked very much to demonstrate that involving customers in the creation of the product or of the service brings to various positive consequences, which are beneficial for both the customer and the organization.

In particular, co-creation's benefits can be categorized in two broad classes: effectiveness improvements and efficiency improvements (Hoyer et al. 2010). Effectiveness is achieved or improved because the organization, through co-creation, is able to accurately gather relevant information about customer's needs and preferences, thus smoothing the risk to offer unwanted products or services, which in the end do not reflect the actual demand.

Efficiency improvements, for instance, are achieved when customers, being an additional resource inside the organization, can partly substitute employees' inputs and can represent an extra source of creativity and innovation.

Steen *et al.* (2011) proposed an interesting partition of the benefits arising from co-production, dividing them into four different categories:

- Improvement of the *creative process*, because the participation of the customer, especially during the idea generation, can foster diversity of perspectives and product innovation;
- Improvement of the *product or of the service*;
- Improvement of *project management*, which could be achieved through, among the others, a reduced time-to-market and lower development costs;
- Improvement of *longer-term effects*. This last category is rather general and may include benefits accrued by both the customer and the organization. By using the caption "longer-term effects", these authors refer principally to pleasant long-lasting relationships, satisfaction and loyalty.

The majority of papers in the literature wrote about the benefits accrued by organizations. Among these, **costs reduction** and **lower risks** stand out (Mills et al. 1983; Auh et al. 2007; Steen et al. 2011; Prahalad & Ramaswamy 2004). The explanation is the following: since customers are engaged in some organization's activities and have their duties and

responsibilities, they somehow decrease the overall firm's workload. Indeed, customers supply productive labor in the form of relevant information or effort, which eventually substitutes ordinary employees' labor, thus decreasing costs (Rodie & Kleine, 2000).

Furthermore, co-creation enables the firm to customize and customization, in turn, decreases the risk to provide goods or services, which do not fit customer's expectations.

Now, it is interesting to observe how scholars and academics from all over the world engaged in the study of the effects of co-creation and of co-production, how they measured or are working on the measurement of such praised positive consequences.

With respect to this, they typically measure the correlation between customer participation or customer behavior during co-creation and customer satisfaction. Indeed, customer satisfaction is a good index to assess the quality of the outcome from the customer's point of view and it is easily fathomable, if compared with other variables characterizing the relationship, which could be significant, but not easily controllable and measurable.

The majority of studies focuses on such relationship, with the understanding that they use different methods of analysis and they consider different variables (Vega-Vazquez et al. 2013; Lengnick-Hall et al. 2000; Kellogg et al. 1997; Hunt et al. 2012).

As anticipated before, this part of literature is highly consolidated and a large quantity of papers and researches on the theme is currently available. This is why the present chapter will not excessively elaborate upon the presentation of these different concepts and perspectives. What is important to keep in mind is that the majority of literature recognizes that co-creation, together with co-production and co-design, typically brings to positive outcomes and one of these is represented by the enhanced customer satisfaction.

The present chapter is divided into two sections: the first one adopts the point of view of the customers and analyses the main findings on the correlation between customer behavior in co-production and customer satisfaction.

The second section will instead focus on the provider and, in particular, on the positive consequences that co-creation arrangements could trigger, by favoring the analysis of the effects on customer loyalty and on employees' satisfaction and performance.

3.1. User involvement and customer satisfaction within co-creation

As asserted above, co-creation is generally stated in positive terms. From the early research on the so-called Service-Dominant logic to the recent literature about customer involvement in service provision, co-creation itself, as co-production and co-design, is deemed to be as a

beneficial business practice that necessarily brings to higher value and should, therefore, be implemented by all types of service organizations.

Thence, we can presume that such higher value, created and appropriated by both parties involved, is a consequence of a higher-quality outcome, which, in turn and logically, leads to customer satisfaction. Indeed, many articles have tested and demonstrated that there exists such positive relationship between the type of customer involvement in co-creation activities and customer satisfaction (Vega-Vazquez et al. 2013; Hunt et al. 2012; Ennew & Binks 1999; Chan et al. 2010).

Nevertheless, the same articles are characterized by strong limitations, which will be listed in detail in the following sections, and sometimes they just speculate on the potential relationship between customer involvement and satisfaction, without being supported by a proper empirical analysis.

This paragraph will adopt the customer's point of view, by offering an overview over some interesting works, which strived to investigate the positive nature of co-creation and how it could affect customer satisfaction.

First of all, it is mandatory to observe that the majority of these papers recognizes the traditional definition of customer satisfaction, according to which the latter is conceived as an individual assessment of actual performance compared with initial expectations about the product or the service (Yi 1990).

At the same time, they pinpoint that co-creation, being a collective practice, should consider the "social side" of satisfaction. This is why, next to the individualist definition of satisfaction, many marketing academics and practitioners consider that customer satisfaction judgments are social in nature and, thus, are influenced by the surrounding community (Fournier & Mick 1999; McAlexander et al. 2002; McMillan & Chavis 1986). Indeed, the sense of community could be very strong within co-creation arrangements, in which the customer builds up a relationship with the members of the organization and, in some cases, with other customers. Accordingly, it is quite straightforward to understand that satisfaction could be easily influenced by the perceptions of others (McAlexander et al. 2002).

One of the papers which contemplated the sense of community in analyzing customer satisfaction within co-production is the one by **Hunt et al.** (2012), which definitely deserve to be included in the present analysis.

According to these academics, product satisfaction from co-production derives from at least two sources: the sense of community and the effects of a self-serving bias. The sense of community, as introduced before, plays a strong role in determining customer satisfaction,

because, through the engagement in co-creation activities, the customer perceives a higher control over processes and feels part of a group. The relatively new concept brought in by this paper (though mentioned in other similar works) is the self-serving bias (Wolosin et al. 1973). It occurs when outcomes are jointly produced (as in the case of co-production): when outcomes are good, customers may claim more responsibility than the firm for the success of the project and vice versa.

From this, to measure satisfaction, they consider behavioral involvement and commitment. Behavioral involvement is defined as an effort-based construct, whereas commitment is conceived as a time-based construct. That is to say, the former is conceptualized as the frequency and breadth of customer participation in co-production activities; the latter refers to the duration of such participation.

In their analysis, they compare the satisfaction of customers engaged in co-production activities with that of ordinary customers, by measuring their behavioral involvement. Results are clear: customers as co-producers are more satisfied with the product they receive than customers who do not actively participate in value-chain activities. Besides, customer commitment was measured to prove that the duration of the relationship enhances the involvement of the customer who, in turn, is even more satisfied.

The work by Hunt *et al.* (2012) on the relationship between customer involvement in co-production and customer satisfaction provides a good explanation of the main variables which can effectively determine and influence satisfaction, even if it has its limitations: first among everything, it focuses on a unique context (i.e. community-supported agriculture programs in the USA).

Other researches in this field made use of the Yi and Gong scale, which was presented in the previous chapter (Yi & Gong 2013). The aim of these analyses is to find a potential correlation between the behaviors adopted by the customers within co-creation arrangements (i.e. those behaviors accurately classified by the aforementioned scale) and their satisfaction with the outcome.

Among the others, **Vega-Vazquez *et al.*** (2013) hypothesize that “there is a positive relationship between the customer’s behavior of value co-creation and their level of satisfaction with the service” (p.1948). To test it, they measured the eight dimensions of customer behavior proposed by Yi and Gong (information seeking, information sharing, responsible behavior, personal interaction, feedback, advocacy, helping and tolerance).

Satisfaction is measured by following the so-called “disconfirmation paradigm”: the customer is satisfied if the level of expectations before using the product or the service is lower than the level of performance he or she perceives after the usage of the product or the service.

This work demonstrates that there exists a positive relationship between value co-creation (measured in terms of customer behaviors) and customer satisfaction.

A very similar analysis was conducted by **Ennew and Binks** (1999). Their premise is clear: the higher the participation of the customer in the supplier’s activities, the greater the quality of the outcome and the consequent satisfaction. Indeed, customers who create a stronger contact with their suppliers are likely to develop more realistic expectations about the outcome. In turn, suppliers are more knowledgeable about customer’s needs and desires. This should result in a higher-quality output, which in turn, influences positively the overall satisfaction.

According to their point of view, satisfaction is then influenced by several variables: customer’s and supplier’s behaviors, the institutional atmosphere of the relationship and the quality of the outcome.

In this regard, the behavior of both the customer and the supplier is measured by taking into consideration the concept of participative behavior introduced by Groth (2005) and later on proposed again by Yi and Gong (2013).

Hence, this paper measures the degree of information sharing, responsible behavior and personal interaction of both parties involved.

Quality is measured by following the classification provided by Grönroos (1984): thus, both functional (i.e. how the product or the service is provided) and technical (i.e. the performance of the product or the service) quality are assessed.

In the end, by institutional atmosphere they refer to the type of relationship between the customer and the provider; in particular, whether the provider helped or harmed the customer. The estimated models proved to be significant and the work actually demonstrated that there exists a positive correlation between participative behavior, quality, institutional atmosphere and satisfaction.

Moreover, they underlined that these aspects of co-creation do not contribute equally to satisfaction: in particular, they found out that the type of relationship with the supplier (i.e. the institutional atmosphere) and the participative behavior of the provider highly influence satisfaction, much more than items like information sharing or responsible behavior.

The proposed findings actually demonstrated that, in the analyzed contexts, there exists a positive correlation between customer behavior in co-creation and satisfaction. Unfortunately, these studies are characterized by several limitations.

First of all, they all focus on a specific sector or on a specific case; none of them offers a model that could be potentially generalized, even with some adaptations. The first study focuses on a specific agriculture agreement, which exists in the USA, the second one on personal care centers and the last one investigates the banking sector.

Moreover, the first work investigated “pure” co-production (i.e. production of agriculture goods shared among different subjects) (Hunt et al. 2012). At the same time, Ennew and Binks (1999) analyzed services and, to do that, they used measures and variables that are typically employed in assessing the performance of service provision (e.g. the measurement of functional and technical quality as described above).

Hence, firstly, we need to consider that these results are not generalizable, but should be considered independently, from sector to sector. Secondly, sometimes samples are not large enough. Finally, researchers should take into account other variables that, potentially, could influence satisfaction besides customer participative behavior, like pre-existing customer loyalty or the intensity of the involvement.

3.2. Firm’s beneficial outcomes and employee satisfaction in the context of co-creation

Theoretically and practically speaking, co-creation could entail various advantages for those firms that decide to engage in such a practice. The majority of them has been briefly listed in the first part of this chapter: lower risks, enhanced customer satisfaction, improved innovation, stronger creativity, higher retention rates. These aspects are all expected to better the firm’s financial performance (Zeithaml & Bitner 1996).

One of these, customer satisfaction, has been described more in detail in the previous paragraph by adopting the customer’s perspective. Now, it is interesting to see how co-creation could positively influence customer loyalty and employee’s performance and satisfaction, thus reflecting beneficially on the overall performance of the firm.

Auh et al. (2007) hypothesized that co-production impacts positively on both attitudinal and behavioral loyalty, as defined in the paper by Dick and Basu (1994). Attitudinal loyalty refers to the level of commitment showed by the customer to the organization; behavioral loyalty refers to the mere repetitive purchase conduct adopted by the customer.

In this research, they adopted the following type of analysis: effective co-production is a result of *perceived task clarity*, *customer ability* and *customer motivation*. These three items, called facilitating factors of co-production, indeed do make co-production more effective. This, in turn, reflects positively on loyalty, both attitudinal and behavioral.

It is intriguing to investigate how they measured the aforementioned three facilitating factors of co-production:

- *Perceived task clarity* is defined as an outcome of effective client-advisor communication; in fact, customers, in order to be able to understand their roles and responsibilities, need to establish a contact with the provider and there has to be a reciprocal and ongoing exchange of information about tasks and expectations.
- The *ability or competence of the customer* is measured through his or her expertise in the concerned sector of analysis.
- *Customer motivation* is quite relevant and simultaneously complex to measure. They assert that motivation is a result of both affective commitment and interactional justice; affective commitment is defined as “the customer’s attachment to, identification with, and involvement in the organization” (p. 362), whereas interactional justice refers to “fairness of judgments based on the quality of the interpersonal treatment a customer receives during a service encounter” (p. 362).

The analysis consists in a questionnaire, which measures the aforementioned constructs, followed by a statistical hypothesis testing. Results are mixed: in particular, co-production is positively correlated with attitudinal loyalty, but not with behavioral loyalty.

Furthermore, as far as concerns the correlation between the facilitating factors and co-production, client-provider communication (as a measure of task clarity) has a significant positive association with co-production, together with client’s expertise, interactional justice and affective commitment. Even if this study includes some limitations, since its analysis is restricted to high-involvement sectors (i.e. financial and medical services) and focuses solely on business-to-customer relationships, it brings about several managerial implications and, differently from other similar works, it considers the possibility that high-involvement services could also lead to increased stress, emotional exhaustion and higher costs for the organization. As for managerial implications, they postulate that organizations, in order to fit for co-creation, must institute some cultural changes in their structure: they need to be more flexible and to train frontline employees to be more responsive and capable to cope with the increased uncertainty caused by the customer’s involvement. Afterwards, they should improve communication channels and, to nurture the perception of interactional justice, they should improve the quality of the relationship, to make it increasingly equitable.

Co-creation can occur in a variety of contexts: from big organizations to single independent contractors who decide to create something new together with their customers.

In wider organizations, like big multinationals, co-creation has consequences, whether positive or negative, on those employees who manage the relationship with the organization's customers: the so-called "contact employees" or "frontline service employees" (Kelley et al., 1990).

Hence, it is interesting to understand how co-creation could positively influence employees' performance and satisfaction and, consequently, those of the organization.

In the matter of this, the paper by **Yi et al.** (2011) recognizes that the majority of researches concerns customer behavior, whereas few investigations examine how such behavior could affect employee-related outcomes. Given that, they designed a model to analyze how and to what extent customer participation influences the performance, the satisfaction, the commitment and the turnover intention of the organization's employees.

The study is founded on the following pillars:

- Customers are viewed as human resources (i.e. partial employees) and have duty and responsibilities within the organization (Lovelock & Young 1979);
- Another crucial theme is the so-called "customer contact theory", according to which customers have a physical presence in and contribute to the delivery of a certain service (Chase 1981);
- Moreover, they adopted the difference between in-role and extra-role behaviors, which are respectively known as participative and citizenship behaviors (Groth 2005);
- In the end, they assumed the social cognitive theory, which probably is one of the most important point they started from. According to the social cognitive theory, when an individual observes someone else's behaviors, he or she gains more confidence about his or her abilities in performing the task, because he or she knows that the relevant behaviors could be easily learned and new relevant skills could be readily acquired by observing other's behaviors (Compeau & Higgins 1995).

After such a premise, they assumed that both customer participative and citizenship behaviors could positively influence employee's performance, satisfaction and commitment. Their explanation is provided hereafter.

Firstly, customer participative behaviors decrease or remove some of the labor tasks typically performed by ordinary employees. Since the workload is reduced, employees have more time to engage in more rewarding interactions with their customers, thus increasing the satisfaction of both parties involved. At the same time, they argue that also commitment and performance increase, as a consequence of the reduction in the overall workload and of more pleasing relationships with customers.

Secondly, customer citizenship behaviors make the employee feel better and, most importantly, make him or her more prone to reciprocate. Here, they consider the effect of the four dimensions of citizenship behavior (i.e. feedback, helping, tolerance and advocacy). For instance, if the customer provides a relevant feedback to the organization, the employee is able to understand where he or she was wrong or right and could become more performing. Again, if customers help other employees in performing their tasks and in understanding respective responsibilities, employees are less stressed and more satisfied with their job.

Finally, they introduced something new in their research. In fact, they hypothesized that *similarity* and *likeability* are likely to strengthen the relationship between the customer's behavior and the employee's satisfaction; in a nutshell, they act as moderators of employee satisfaction. Similarity is defined as the resemblance between the customer and the provider (or, in this case, the employee) (McGuire 1985); likeability is defined as the people's assessment that the other party is pleasant, friendly, polite and nice (Doney & Cannon 1997). Most hypotheses proved to be statistically significant, except for the hypothesis, which holds that customer citizenship behavior has positive effects on employee satisfaction.

Even if this paper was one of the first to analyze the potential effects of customer behavior on the employee's performance, satisfaction and commitment, it is characterized by a strong limitation, which holds back the significance of its results: indeed, it is restricted solely to beneficial customer's behaviors, without considering the possibility that customers could also be uncooperative, negative and counter-productive.

Chapter 4

THE OTHER SIDE OF THE COIN: INTRODUCING CO-DESTRUCTION

- Is co-creation always the right thing to do? -

From now on, the perspective of this work radically changes. It is not anymore about positivity and about the improved outcomes of participative relationships; it is not about creative customers and well-structured firms, perfectly able to manage the complex interactions arising from co-creation.

As set forth in the first part of this work, the literature has carefully analyzed many sides of co-creation; however, it allocated an extraordinary importance to the positive implications of co-creation, by adopting an overly optimistic perspective. Some authors even purport that it is the S-D logic itself that presents an optimistic and somehow simplistic view of value co-creation (Plé & Cáceres 2010; Lindgreen et al., 2012). Thus, we must observe that the focus of the literature is strongly unbalanced.

It is true that the customer should be the heart of marketing strategies. This could be summarized with the well-known expression “the customer is always right”, even if it has its own critics too (Sorell 1994; Grandey et al. 2004). But, is the customer always “good”? Is he or she expert, competent and mature enough to take on the role normally performed by employees or professionals?

After a theoretical part on co-creation and on its main studied effects, the purpose of this chapter is to tackle the opposite side of value co-creation, that is named after value co-destruction. This topic is not so easy to analyze, especially from the theoretical point of view. Few researchers have made an effort to define this construct and, most of all, the few studies available are characterized by several limitations (e.g. lack of generalizability) (Smith 2013; Vartiainen & Tuunanen 2016; Echeverri and Skålen 2011).

This is curious though, being the destruction of value a quite important and central construct, especially for firms. Firms, indeed, should be aware of the potential side effects of the practice they are taking part in. Yet, by studying marketing theory, co-destruction seems chimeric. It seems, but it is not.

Many examples could help us in translating these speculations into practice: think about an architect. He is prepared, he has got a degree and he had different experiences in his sector of activity. He is a professional. Now, this architect is working for a specific customer. Both

parties, of course, have their own tastes and expectations about the outcome of the project. However, the customer, even if he or she knows what he or she wants, at least partially, does not know what does it take to get the job done. Being not competent in this professional field, it could happen that his or her wishes and suggestions are not entirely feasible or are not the best choice available. Everything could run smoothly if the customer accepts the architect's opinion and takes a step back, simply recognizing that is not prepared to take certain types of decisions. But what if the customer behaves in the opposite way? What if he or she starts to make decisions in every step of the project, by putting the patience of the architect through the wringer? We can presume that there will be time losses, improved stress (probably experienced by both sides) and, above all, potential dissatisfaction. Why so? Mainly because the provider will not be content with the work he or she has done or with the way in which he or she worked (if we consider also the relational side of the project); at the same time, the customer is likely to receive an outcome that, even if it seeks to fulfil his or her expectations, is not qualitative sufficient or it does not work well.

There could be thousands of examples on "bad relationships", especially in participative frameworks, like co-creation. The previous one was centered on the lack of expertise of the customer and on the implications it could potentially have on the relationship. However, co-creation could end badly for a variety of reasons: it could be the firm's fault, for instance. What if the firm is not able to correctly handle the communication with the customer? What if it is not able to manage these complex interdependencies? This could have negative consequences both for the firm and its employees (in terms of job stress, lack of role clarity and higher coordination costs) and for the customer as well (poor involvement, lack of role clarity, uncertainty, unpleasant relationships).

In the end, the causes of failure could be different. Nevertheless, as purported before, co-destruction is mostly untreated. And this is quite odd, since there could be so many cases of disruptive or dysfunctional relationships, especially in service settings. For this reason, it is still too soon to provide a thorough literature review or a classification of the diversity of perspectives. As asserted before, the literature has just started to tackle value co-destruction and the outlook is still confused.

From now on, it is essential to keep in mind that, in everyday life (and especially in business settings) there is clear evidence of negative service encounters. From this, researchers should try to investigate what could go wrong within the neat lines of co-creation activities. Most of all, the academia should identify its main causes, their implications and how to counteract them.

Firms, through this, will have the tools, or at least some theoretical suggestions, to minimize the negative implications of customer involvement.

This chapter is highly theoretical and it is divided into main sections. The first one includes the most important contributions in this particular field, putting more emphasis on the potential causes of co-destruction. The second one is focused on a topic that, within co-destruction, has received a wider attention, if compared with the others: the potential negative effects of co-creation on employees' stress and workload.

4.1. Potential causes of co-destruction: a literature review

This paragraph requires a proper premise: the consensus around the causes of co-destruction has not been reached yet. The meaning of co-destruction itself is still ambiguous. Academics share some hypotheses, but disagree on others. The second necessary premise is that the majority of the available documents contains mere speculations: since co-destruction is theoretically in its early history, the empirical research in this field is almost completely absent. Hence, the present section will simply offer an overview on the current status of the literature.

Plé and Chumpitaz-Càceres (2010) define value co-destruction as “an **interactional** process between **service systems** that results in a decline in at least one of the **system's well-being**” (p. 431). Three items of this definition should be highlighted. Firstly, interactional: of course, value co-destruction occurs within participative relationships. Secondly, service systems: it is interesting to acknowledge that the majority of the literature, in studying both co-creation and co-destruction, mainly analyze service settings (Vargo & Lusch 2004; 2006; 2008; Spohrer & Maglio 2008; Grönroos & Voima 2013). Thirdly and finally, the well-being of the two (or more) parties involved: according to the authors above, co-destruction should then be measured in terms of how the customer and the provider feel after the end of the project, presumably in terms of the value they think they have lost from it (measured in terms of costs versus benefits). Remember indeed, that participation involves both costs and benefits. Costs as financial, temporal, behavioral and relational effort (Plé & Cáceres 2010). Benefits depends on the type of value they experience (Smith 2013). Here value could be a result of consumption as an end in itself (i.e. intrinsic value) or because the product or the service leads to a higher status, an improved self-esteem or to an increased efficiency (i.e. extrinsic value) (Holbrook 1999).

Anyway, after a brief overview over the definition of value co-destruction, one should focus on the potential causes of it. Here, perspectives are different and, as repeated more than once above, most hypotheses remain statistically untested.

Echeverri and Skålen (2011) were among the first to argue that value can also be collaboratively destroyed. Thus, they recognized that co-creation and co-destruction are the two different sides of the same coin. In particular, they clearly state that the literature is adopting an overly optimistic approach to value co-creation. They strongly underpin that “we need to stop seeing value creation as the only possible outcome during interactions between provider and customer” (p. 34).

Their contribution to the literature on value co-destruction is quite important, probably because they were among the first to posit that co-creation and co-destruction can both happen and they both are unavoidable parts of interactive value formation.

In particular, for the purposes of their analysis, they identified five *practices* of interactive value formation:

- *Informing* (i.e. sharing information regarding issues related to the product or to the service);
- *Greeting* (i.e. how employees and customers approach each other);
- *Delivering* (i.e. how the product or the service is delivered to the customer);
- *Charging* (i.e. the act of paying the required price); and
- *Helping* (i.e. how employees help customers and vice versa, how customers help each other).

Their research has been performed in the following manner: for each of these practices they identified situations of both co-creation and co-destruction.

For the purposes of this paragraph, only value co-destruction will be considered.

They investigated a sample of employees and customers in the sector of public transport in Sweden. Here follows an overview of their findings with reference to co-destruction for each of the practices they identified:

- *Informing*: co-destruction of value occurs if the customer ignores the service procedures, because information has not been properly acquired and/or exchanged with the provider. In this case, the customer could complain without any good reasons, thus leading to dissatisfaction of both parties involved.
- *Greeting*: here, co-destruction happens if the participants have different expectations concerning the greeting event or on how they should talk to each other. It is typical when the two parties act in a selfish way or present a lack of empathy.

- *Delivering*: it happens if procedures are applied incorrectly or, sometimes, when they are applied too strictly, whereas the customer may need improved flexibility.
- *Charging*: it is the case of complicated payment methods and bad instructions on how to perform such payment.
- *Helping*: it occurs when the skills and the actions of helping do not really fit the other's need to be helped.

This research has the great merit to introduce a new perspective on value co-creation but, unfortunately, is not exempted from several limitations, that hamper the importance of its results. First of all, it considers a specific sector, that is the public transport sector in Sweden. Thus, results are highly context-dependent and there is no room for generalization. This could be easily understood by simply looking at the five different practices of interactive value formation they identified. In that specific context, those are the right ones to analyze, but they may surely vary in other types of sectors or in other relationships. Moreover, we still are in front of an analysis which focus solely on services. Another significant limit is represented by the type of analysis: the authors performed very long interviews to investigate the sample. Data are mostly qualitative and the procedure to collect them is complex and takes a long time.

Anyway, Echeverri and Skålen remain among the most important authors in the rising theory of value co-destruction. This is proved by the recent literature on the topic, that extensively cite their findings and their assumptions as starting points for future research (Smith 2013; Prior & Marcos-Cuevas 2016; Vartiainen & Tuunanen 2016). Hence, the main contribution of this research is not the empirical research applied to co-destruction, but rather the huge gap they identified in literature, which made other researchers start moving toward this relatively new and understudied construct.

Together with the contribution of the aforementioned authors, one of the most studied hypotheses of co-destruction is the so-called **misuse of resources**, which could be either intentional or accidental (Plé & Cáceres 2010). The first thing to know about this paper is that it is extremely theoretical and abstract. It just proposes a new perspective on value co-destruction. Consequently, there is no empirical research showing that what they speculate on is actually true. Anyway, their contribution is extremely important, because it provides a good explanation of the potential causes of co-destruction, starting from the S-D logic and co-creation in general.

In particular, we need to recall two main facts: firstly, it is not possible to ensure 100 percent error-free products or services, failure is a concrete risk and thus should be taken into consideration (Dong et al. 2008; Ogbonna & Harris 2002; 2006). Secondly, according to the S-

D logic and co-creation, value is created through interactions, both direct and indirect. Thus it is necessarily an interactional process, where both service systems contribute their resources (Vargo & Lusch 2008).

Plé and Chumpitaz-Càceres (2010) start from resources indeed. According to their standpoint, participants have expectations about how resources should or are going to be used within the relationship. Expectations are the heart of their reasoning: indeed, they contend that value co-destruction happens if one service system (e.g. the customer) fails to use and to apply the available resources (both operand and operant) of at least one of the other service systems involved (e.g. the firm) in the manner that is considered appropriate or expected by the latter (e.g. the firm). Hence, the misuse of resources could be enacted by the customer or by the firm or by both of them.

Another interesting and significant contribution concerns the type of misuse. Indeed, they posit that the misuse of resources could be accidental or intentional, as introduced before. For both typologies, they provide two or more effective examples. For the purposes of this chapter, the following cases are proposed:

- **Accidental** misuse: it is probably more common than intentional misuse. In fact, no one (in principle) wants to destroy value. The most incisive example of accidental misuse is represented by the situation in which the customer becomes co-innovator. It is true that customer engagement may foster creativity and innovative solutions (Hoyer et al. 2010; Helfat 2006), but it is true that customers are not always experts either. Probably they do not hold the necessary knowledge to participate effectively in the innovation process. This means that they are not able to use their and the firm's resources correctly, thus leading to co-destruction. How? The customer could get frustrated because he or she does not know how to behave and how to perform his or her tasks. The firm loses energies in managing ineffective co-creators, thus increasing costs and obtaining poor products or services at the end of the innovation process.
- **Intentional** misuse may seem counterintuitive. Why one of the actors should aspire to co-destruction? It seems quite odd. However, it is not unusual, if we consider the situation in which one of the two parties involved is incentivized to misuse resources, because such misuse could lead to his or her personal satisfaction (i.e. co-creation), even if at the price of the other party's dissatisfaction (i.e. co-destruction). The example, here, is given by the customer who illegitimately complains or adopts opportunistic behaviors to bother frontline employees. These set of behaviors could fit his or her peculiar need of being empowered or feeling important, thus co-creating value for the customer, but destroying it for the

organization. We can add another circumstance: indeed, it could be the case of the customer, who aspires to reduce the price of the product or of the service as far as possible, thus forcing the firm to significantly reduce the quality of the output.

Even if this study brings about a mere theoretical perspective, it is widely cited in literature (Smith 2013; Vartiainen & Tuunanen 2016; Prior & Marcos-Cuevas 2016) and, together with the paper by Echeverri and Skålen (2011), represents the starting point for deeper, more thorough and precise researches on value co-destruction.

Drawing on the contribution of Plé and Chumpitaz-Càceres (2010) and on the theory about the misuse of resources, Smith (2013) elaborated her empirical research to test the correlation between the misuse of resources and the destruction of value within a participatory service relationship. The idea of this paper is founded on two main pillars: the first one is that, within co-creation, service systems aim to co-create value through resource integration (Lusch & Vargo 2011). This means that both parties give out some of their resources during co-creation. The second one is that customer's expectations play a key role in determining if, in the end, there is a resource loss or gain.

The author, to perform her analysis, divided customer resources using the Hobfoll's classification: accordingly, resources are divided into *material*, *conditions*, *self*, *social* and *energies* (Hobfoll 2002). For the purposes of the analysis, the author combined conditions and self together and adds two extra categories of resources: *leisure* and *hope*.

At the same time, to classify the firm's resources she used the partition proposed by Maglio and Spohrer (2008): accordingly, organizational resources are classified into *people*, *technology*, *organizational* and *information*.

The analysis was performed by using the CIT (i.e. critical incident technique) methodology. CIT works in the following manner: respondents are asked to describe a negative service experience (that is the incident) and, during a second phase, missing details and other key elements are added to gain a thorough understanding of such experience (Gremler 2004).

The underlying reasoning is the following: customers have expectations. The organization could fail to meet these expectations in four ways:

- It is not able to fulfill its resource offer, which represented by its value proposition;
- The resource integration process fails to co-create the desired outcome;
- The customer experiences a loss of his or her resources;
- A combination of the previous.

If such misuse of resources occurs, in one way or another, the customer experiences a bad outcome and a loss in his or her system's well-being.

This study found out that it is true that customers attribute their loss of well-being to the misuse of resources by the organization. In particular, such misuse is identified in the following situations (by looking at the firm’s resources):

- *People*: misuse concerns the negative behavior of frontline employees and managers. It is also attributable to a poor organization of human resources (e.g. inadequate staff numbers);
- *Technology*: misuse concerns the product (or the service). It could be totally wrong or ineffective;
- *Organizational*: it refers to policies, procedures, norms. It is linked to the way the organization interact with its customers;
- *Information*: it refers to the inefficient communication channels existing between the firm and its customers.

Thus, there is a relationship between the misuse of resources and the loss of customers’ well-being.

Another interesting contribution of this author is the investigation of the coping mechanisms the customer tends to adopt after failure happens. This matter is not helpful for the purpose of this chapter, but it is necessary to underline that it has a significant usefulness for managers; indeed, they could better understand how to handle service recovery and, thus, avoid or at least minimize the churn rate.

Unfortunately, this study is built upon several limitations. Firstly, the CIT technique is not that easy to implement. It could be highly subjective, if poorly managed; moreover, it may be difficult to gather data (being lengthy and laborious, many subjects may not be motivated enough to answer). Secondly, the size of the sample is not large enough and the resource loss was measured solely from the customer’s perspective.

Dominant perspectives on co-destruction’s causes	Authors
Misuse of resources	<ul style="list-style-type: none"> • Plé and Chumpitaz-Càceres (2010) • Smith (2013) • Prior and Marcos-Cuevas (2016)
Incongruence of practices	<ul style="list-style-type: none"> • Echeverri and Skålen (2011)
Table 3 – The two early perspective on value co-destruction determinants	

4.2. Co-destruction and firms: employees' stress and providers' workload

This paragraph is dedicated to the description of co-destruction's main implications from the firm's perspective, namely from the point of view of its employees. This matter has received a particular attention from the academia, certainly higher than co-destruction from the point of view of the customer.

In particular, there have been some attempts to investigate the nature of job stress and increased workload caused by customer engagement.

The underlying assumption is easy: it is true that customers contribute extra resources to a specific process of value creation, which could even lead to enhanced room for innovation and creativity. At the same time, though, customers can be particularly demanding or unpleasant. Hence, co-creation is likely to cause higher stress, anxiety and unnecessary work, which, in turn, negatively influences the performance of employees and, potentially, the co-creation performance in general.

One of the most interesting contribution in this sense comes from Chan *et al.* (2010). Their idea is to prove that co-creation, next to its well-known (and studied) positive effects on customer satisfaction, could also lead to job stress and, consequently, to an impoverished job satisfaction and performance. On the same length, another group of researchers focused specifically on the increased employees' perceived workload caused by co-creation and by always more demanding customers (Hsieh *et al.* 2004).

Before getting to these papers, one needs to underline the fact that customer participation may shift more power from employees to customers (Ouschan *et al.* 2006; Prahalad *et al.* 2000), which could lead to role conflict and higher workloads (Hsieh *et al.* 2004; Kelley *et al.*, 1990). Moreover, employees cannot reject customers or, typically, they cannot choose the customer they will work with.

The aforementioned papers both investigate the sector of professional services, which typically entails higher contact and improved customization.

4.2.1. Investigation of frontline employees' stress

Chan *et al.* (2010) analyzed the sector of financial services, by studying a sample of employees and their customers. The main variables they considered are the following: customer participation, customer economic value, job stress, customer's and employee's relational value,

customer and job satisfaction and, finally, employee job performance. Then, they considered a range of moderating factors that will be briefly tackled later on.

The idea is the following: customer participation, in terms of “the extent to which customers provide/share information, make suggestions, and become involved in decision making” (p. 49), drives the outcome of co-creation and so that, as listed above: customer satisfaction, employee job satisfaction and employee job performance.

A right and proper specification must be made with reference to customer participation: according to these authors, the outcomes of customer participation are dual. In fact, it could lead to the development of economic value and/or to the formation of relational value. They hypothesize that customer participation leads to customer satisfaction, through the creation of customer economic value.

However, what about the employee? From this point of view, things become more complex. In particular, they introduce the fact that the aforementioned economic value could be negative for the employee. Why so? Because customer participation and the increased customer control over the firm’s activities could increase job stress, measured in terms of role ambiguity, role conflict and work overload:

- *Role ambiguity* is represented by the employee’s perceived lack of information about the customer and, most of all, about how to perform his or her role correctly within the co-creation framework;
- *Role conflict* tackles the incompatibility in the role’s requirements;
- *Work overload* occurs when the tasks to be performed exceed the ability and the motivation of the employee to perform them.

Given this, they identified a variety of causes for stressful situations and the corresponding examples.

First, the shift of power and control from the employee to the customer (at least partially) could weaken the smooth functioning of the process, creating job stress. Customer participation is then a source of strong uncertainty: the customer, indeed, could participate by adopting behaviors that fall outside his or her required role (Martin et al. 1999). This could happen, for instance, when the customer makes unnecessary recommendations and suggestions or, again, if he or she requires unfeasible service options or features. Besides job stress, even task difficulty could increase, thus hampering employee’s job satisfaction.

The concept of role conflict is tightly linked to the uncertainty about the tasks to be performed. In particular, role conflict could occur when customer’s demands are incompatible with the role

script of the employee. In this case, this employee spends extra time and extra resources to please the customer; in the end, job stress is likely to increase.

After these assumptions, they hypothesize that “a higher level of customer participation leads to lower employee job satisfaction through the creation of employee job stress” (p.52).

Through their empirical analysis, they actually demonstrated that co-creation might be a “double-edged sword” (p. 58).

As posited before, indeed, even if customer participation could lead to highly customized products, services or experiences, better quality and increased customer satisfaction, it is also likely to increase job stress and to hamper job satisfaction.

This is shared also by others, who contend that employees, in co-creation, face multiple demands: they need to answer both supervisors’ and customer’s requests (Zablah et al. 2012). Therefore, since individuals can access and process a certain amount of information at a time, these multiple demands are likely to drastically increase their job stress.

The paper by Chan *et al.* (2010) shows that, in order to counteract the negative implications of stress, firms should focus on the creation of relational value. Indeed, customer participation could lead to relationship building between the employees and their customers which, according to these authors, represents a prerequisite for both customer and employee satisfaction.

To conclude, as introduced before, their statistical analysis considers also the influence of two moderating factors, namely *power distance* and the type of *cultural orientation* (individualism versus collectivism). In particular, they found out that power distance could indeed greatly influence the performance of co-creation. How?

Firstly, power distance is defined as the extent to which inequality between people in different power positions is considered acceptable (Hofstede 1980). Employees characterized by a higher power distance value orientation are less susceptible to role conflict and uncertainty, because they recognize a clear separation between subordinates and superiors and they internalize such distinction. Their reasoning starts from the fact that management rhetoric suggests that the customer is sovereign and that the employee should do whatever it takes to please him or her (Chan et al. 2010). Accordingly, employees should be considered subordinates within this framework (Shamir 1980). Thus, theoretically, they contend that employees high in power distance recognize the “superior status” of the customer and are more willing to be flexible to please him or her. Conversely, employees with a lower power distance value orientation could experience higher role conflicts because they do not fully recognize their role of subordinates in this particular circumstance. Consequently, they are not completely willing to adapt their

behaviors to customers' extra requirements, because they do not perceive the customer as their "superior".

4.2.2. Investigation of the providers' perceived workload

As presented at the beginning of this paragraph, co-creation has implications also on the employee's perceived workload. On this issue, anyway, literature exhibits different and opposed standpoints.

In particular, the dominant perspective asserts that, through customer participation, the firm is able to transfer a part of the job content to customers, thus decreasing the overall workload typically borne by employees (Larsson et al. 1989; Lovelock and Young 1979). Accordingly, we should necessarily assume that customer participation is negatively correlated with the provider's workload. One should observe that this perspective may actually work in analyzing some types of service settings (e.g. online check-in systems and automatic teller machines). However, this perspective may be overly optimistic in investigating professional services or other types of complex products.

The other perspective is more recent and it is based on the following assumptions. Customer participation, by its very nature, is highly complex to manage: it represents a source of uncertainty (Ennew & Binks 1999). Customers sometimes are not enough prepared to engage in co-creation activities or they fail to comply with the organization's procedures, thus disrupting organizational routines (Danet, 1981).

Furthermore, the customer could become significantly demanding and his or her special requests could eventually overcome the ordinary role-script of the employee. This bundle of situations could lead to increased task difficulty and, thus to a higher perceived workload.

The work by Hsie *et al.* (2004) wants to investigate this specific problem. In particular, they hypothesize that employees, within co-creation frameworks, are at the mercy of both their customers and their managers. Indeed, they must fulfill what is requested by their job description and, at the same time, they must answer the specific and, sometimes, extraordinary customer demands. The employee, in striving to satisfy both categories of requirements, increases his or her job complexity and the overall perceived workload.

Thus, the authors hypothesize that "there is a positive relationship between customer participation and service providers' perceived workload" (p.189).

They investigated a sample of restaurant food providers in Taipei (Taiwan). They measured participation at three levels: low, moderate and high, based on the extent of resource

contribution (namely, in terms of time and effort provided by the customer), on the information provision and on co-production activities. Results are clear: there exists a positive correlation between customer participative behaviors and employees' perceived workload, in particular, when co-production takes place or, in general, when the extent of customer involvement is particularly significant. Anyway, we must observe that these results are valuable and significant only in this precise context of analysis, but things could change in other types of relationships and sectors, where customer participation actually reduces the provider's workload (e.g. automated services, such as online check-in).

This part of the literature suggests some ways to at least minimize the negative effects that co-creation could have on employee's performances and satisfaction.

First of all, the firm should **motivate** customers to become effective co-creators, in particular by nurturing the relational side of the agreement. Better and more pleasant relationships, make the customer more willing to participate effectively and to respect the employee (Chan et al. 2010)

Second of all, both customers and employees need to fit in their new roles and to be **acquainted** with the specific tasks they are required to perform. Organizational socialization is the best way to make both parties aware of their roles (Dubinsky et al. 1986; Kelley et al. 1990; 1992). From the point of view of the employees solely, the firm must train them adequately to face the increased uncertainty arising from customer involvement. Employees must become highly flexible, responsive and they need to improve their social and problem-solving competences (Gremmler et al. 1994). From this standpoint, adequate training programs should be arranged also for customers, to make them acquainted with the organization's standard operating procedures and, thus, to minimize the risk of disruptions inside the workplace (Cook et al. 2002; Hsieh et al. 2004).

In the end, also **culture** could play a role. It is suggested that the organization should match customers and employees that are culturally compatible, that is, they share a similar cultural background (Chan et al. 2010). Of course, this is possible only in wider organization where variety is higher. It is unfeasible in other unstructured contexts.

Even if the aforementioned matters are starting to receive the attention they deserve, research is still at the beginning. Many questions should be answered and many issues properly investigated from the empirical point of view.

The proposed studies are characterized by several limitations: firstly, they are focused on a single context; their results, in fact, have not been extended to other sectors. Secondly, they study only service industries and their samples are chosen among big organizations. What about

the production of goods? Are implications different? And what about different types of providers?

The academia should tackle these matters in order to provide marketing theory with a comprehensive analysis of co-destruction.

Chapter 5

TOWARD A METHOD TO INVESTIGATE THE POTENTIAL NEGATIVE RELATIONSHIP BETWEEN CUSTOMER INVOLVEMENT AND THE PERFORMANCE OF CO-CREATION

- Are more participatory relationship between the customer and the provider truly desirable? -

The first part of the work was dedicated to the examination of the literature on co-creation and on co-production; the aforementioned chapters are heavily theoretical and have considered a variety of papers written by scholars and marketing practitioners coming from different parts of the world.

The major points of discussion have been addressed, from the definition of the term co-creation (together with the meaning of co-production) to the most interesting features of customer behavior within a co-creation agreement, also presenting a useful tool to comprehend the various dimensions of such conduct, known as the Yi and Gong scale (Yi & Gong 2013).

Furthermore, the third chapter provided an overview over the potential positive effects of co-creation, from the perspectives of both parties involved, namely the customer and the firm or the provider in general.

In the end, the literature review was concluded by presenting the existing perspectives on co-destruction.

This chapter aspires to provide some basic tools to measure the performance of any co-creation relationship, in particular to finally understand if customer involvement leads truly has an impact on the ultimate performance of the relationship.

It is essential to understand why we decided to commit to this project, the reasoning that lies behind it and the main measures we took into consideration.

This is why the present chapter will start by highlighting the major gaps currently existing in the literature, which are the starting points of this research; it will then present the idea and the purposes of the work; afterwards, it will introduce the study behind the identification of the most relevant variables that could be used to measure the co-creation's performance.

To carefully address each of these sections, we made use of the most relevant papers on co-creation and on co-destruction, which will be cited hereinafter.

5.1. What is the literature missing?

Value co-creation is not a new concept, even if it is not old either. The first papers about it date back to the 1980s, when the Service-Dominant logic replaced the once-predominant Goods-Dominant logic. These constructs, though not explicitly defined by the early literature contributions, were then formalized by Vargo and Lusch (Vargo & Lusch 2004; 2006; 2008). Afterwards, co-creation became increasingly popular, mainly thanks to the contribution of Prahalad and Ramaswamy when, in 2000, they published in the Harvard Business Review their article “Co-opting Customer Competence”. Thanks to the huge visibility granted by the well-known periodical, many academics started to write about co-creation, co-production, co-design, about their main characteristics and consequences.

As introduced at the beginning of this work, there exists a significant quantity of materials available. For instance, if one types on any academic search engine (e.g. Google Scholar, Elsevier) the term “co-creation” or “co-production”, results are many and, most importantly, various. One can find papers about service science and co-creation in general (Vargo & Lusch 2004; 2006; 2008; Spohrer et al. 2007; Spohrer & Maglio 2008; Grönroos & Ravald 2011; Grönroos & Voima 2013; Prahalad & Ramaswamy 2004) to articles concerning the particular roles and behaviors customers adopt within co-creation relationships and their managerial implications (Yi et al. 2011; Mills et al. 1986; Lengnick-Hall et al. 2000; Schneider & Bowen 1985). Again, researches range from online co-creation (Füller et al. 2010) to the management of co-design in the development of innovative products (Hoyer et al. 2010). Many focused on the sense of community arising from co-production on the social/relational side of it (Hunt et al. 2012; Neeli Bendapudi & Leone 2003), whereas others preferred to concentrate on the financial benefits caused by it (Mills et al. 1983; Lovelock and Young 1979) and so on.

From this, one can easily sense the complexity in organizing the literature and in providing a rather objective overview on the main topics tackled by scholars and practitioners during the last years.

However, even if the aforementioned issues concerning co-creation have been widely treated, there still exist remarkable gaps, which should be tackled as soon as possible.

Therefore, the aim of this paragraph is to highlight the main gaps and limitations currently existing in the literature. In particular, we focused on the following matters:

- The lack of uniformity arising from the significant variety of perspectives;
- The lack of generalizable results;
- The lack of clarity in the measurement of customer involvement;

- The perceived superficiality in the investigation of co-creation implications in the provider's sphere;
- The marked need to better investigate value co-destruction and its implications;

Hence, the following part will be divided into different sections, each focusing on a certain type of "co-creation-related issue" that, in our opinion, should receive a superior attention from the academia.

5.1.1. The lack of uniformity: things may get confused

Co-creation has received a wide attention by the academia, most of all because of the practical and theoretical implications arising from customer involvement. Indeed, marketing theory and practice primarily focus on the customer and on the study of his or her behaviors. Co-creation, as aforesaid, recognizes the key role of the customer in the creation of value; thus, the process of value creation is shifting from a firm-centric view to personalized customer experiences (Prahalad & Ramaswamy 2004).

Nowadays, customers are informed, networked, empowered and active; they demand experiences, which are more than mere goods and services. Firms need to be acquainted with those practices or tools that can help them in the design of better experiences to please their increasingly demanding customers (Pine & Gilmore 1998).

We also need to pinpoint that co-creation (as the heart of the Service-Dominant logic) typically concerns services. Being the service industry the predominant share of the whole economy, researchers felt the need to study in deep co-creation and to tackle its main characteristics and implications.

This significant attention around such themes has led to a variety of researches and studies that bring about different aspects co-creation, already cited in the introduction of this paragraph. Consequently, if on one hand, the extensive quantity of literature available may lead to a more comprehensive understanding of the topic, on the other hand it could generate more confusion. For instance, co-creation, co-production, co-design and co-development are often used as synonyms, but are they? Is co-production a sub-category of co-creation? Is it a separate and independent practice? Is co-design the same as co-production? The aim of this paragraph is to highlight that there are not unambiguous and approved definitions of these terms; sometimes, this could create doubts in the head of the reader.

For example: Vargo and Lusch (2006), as postulated in the first chapter, recognize that co-production is a subordinate concept to that of co-creation. Co-creation happens during

consumption, whereas co-production involves the intervention of the customer in the creation of the core offering. At the same time, others define co-creation in quite broad terms as any act of collective creativity, without any reference to consumption or value-in-use (Sanders & Stappers 2008).

Again, there is also evidence of opposing perspectives: this is the case of paper by Chathoth *et al.* (2013), where co-production is defined as a manifestation of the Goods-Dominant logic, whereas co-creation is conceived as the expression of the Service-Dominant logic. In brief, according to these authors, co-production is not anymore a particular instance of co-creation, but it is defined as an exchange of goods or services between the customer and the firm on a platform of simultaneous consumption and production.

The different meanings ascribed to co-creation and co-production constitute a clear example of the diversity of perspectives that affects the literature on such topics.

The increased complexity arising from the large quantity of papers, books and articles should then be addressed by providing, for instance, a summary of all the most eminent contributions and by clearly state what is (could be) wrong and what is (could be) right. In this sense, there have been some attempts to organize such extensive amount of information. In the first chapter, the paper by Galvagno and Dalli (2014) has already been mentioned. Indeed, their purpose is to summarize and classify the extant research and to understand the past, present and future state of the theory on value co-creation. Through co-citation analysis (i.e. a mainstream bibliometric methodology, which allows to map a research field's structure and development), they identified three main stream of literature connected to co-creation (i.e. service science, innovation and technology management, marketing and consumer research) and the respective most notable authors.

Another contribution in this sense is attributable to Dhaka (2015). Here, the work is performed in a different direction: papers on co-creation (and related concepts) are classified, among the others, according to the journal of publication, the methodology used to study the phenomenon (i.e. whether case studies, exploratory research, theoretical, descriptive, empirical or experimental) and the content (for instance: co-creation, co-destruction, co-innovation).

These are the major examples concerning the lack of uniformity and the consequent need for an improved clarity.

At the same time, we must likewise observe that co-creation has its unbending pillars, which are widely shared in literature: starting from the customer involvement in the creation of value (Grönroos & Voima 2013; Vargo & Lusch 2004; Grönroos & Ravald 2011), the importance of

the customer as partial employee (Groth 2005; Kelley et al. 1990) and the role of the provider as value facilitator (Sanders & Stappers 2008; Gummesson 2008; Grönroos & Voima 2013).

5.1.2. The need to generalize results

As mentioned above, the majority of papers about co-creation treats such topic from a theoretical point of view. For instance, in the classification made by Dhaka (2015), theoretical publications amount to the 41% of the overall number of publications, followed, among the others, by empirical researches (16%) and case studies (15%). It is then easily understandable that co-creation is receiving the greatest attention, but such attention is concentrated on its conceptual features, rather than on its potential implications to be tested in the real world.

Nevertheless, some authors made an effort to investigate co-creation, and also co-production, through empirical research (Auh et al. 2007; Hunt et al. 2012; Vega-Vazquez et al. 2013; Lengnick-Hall et al. 2000; Yi & Gong 2008; Chan et al. 2010).

However, even if these researches are currently receiving a notable attention from the academia all over the world, they are all are built upon several limitations.

In this sense, the most significant limit characterizing the empirical researches about co-creation is represented by the lack of general results. It simply means that each research focuses on a particular context, or better, analyzes a very specific sample; consequently, results are not easily generalizable to other sectors, to other geographical areas or, in general, to other samples.

It is true indeed that co-creation can occur in a variety of contexts: theoretically, it has no limits. It could happen online (Gebauer et al. 2013), during the creation of a new innovative product (Hoyer et al. 2010) or, simply, by enjoying the experience provided by a restaurant, a hairdresser or a theme park (Vargo et al. 2008).

Furthermore, it could happen in any sector: we may have co-production in the agricultural sector (Hunt et al. 2012) and in the provision of highly-professional financial services (Auh et al. 2007).

And again, it could happen within a one-to-one relationship together with an (unstructured) independent contractor or by developing a very strong relationship with the frontline employees of a multinational.

Finally, it could happen everywhere.

Being co-creation a many-sided phenomenon, it is quite complex to generalize the results found in a certain particular context to other totally different situations.

To better justify such complexity, we can make use of a simple example. The third chapter of this work has cited many authors, who believe that co-creation leads to positive outcomes for both the provider and the customer. The majority of these authors, to test whether co-creation or co-production truly brings to better performances, investigated the matter by analyzing the correlation between customer participative behavior and customer satisfaction. For example, *Vega-Vazquez et al.* (2013) investigated such relationship by analyzing a sample of regular users of personal care centers. At the end of their article they clearly state that “it would be beneficial to broaden the study to other possible consequences of the co-creation process, in order to construct a wide theoretical framework” and, most importantly, that “we could compare results and generalize conclusions by replicating this study in other sectors and geographical areas” (p. 1952).

The same remark is made in the research by *Auh et al.* (2007), in which they investigate the relationship between co-production behavior and customer loyalty; they assert that “we study customers from only two industries – financial services and medical. Although our primary goal has been to investigate the role of co-production in a financial services context and validate those findings in another industry, the strength of the various relationships we test in our model may differ in other service industries. [...] In low-involvement service situations (e.g. grocery shopping), fewer opportunities for co-production may exist to create additional value”. (p.368).

Generalization is complex because of the diversity of contexts. But, the empirical research, and the consequent possibility to generalize its results, is also an outcome of the difficulty in the identification of the major variables to be used in the measurement of the co-creation relationship. Indeed, most of them are not easily measurable.

Hence, researchers should focus on the identification of the relevant variables to be used in the measurement of co-creation relationships’ performance.

Not to mention that research could be a complexity itself: here, problems in the collection of data could arise. For instance, customers may not be completely willing to share relevant information about their experiences for a variety of reasons: lack of time, lack of interest and reluctance to disclose confidential information. The same could happen for firms or providers in general. Things could change for the better if such researches are performed internally, for example if frontline employees are required by their employer to fill in a questionnaire about their relationship with their customers: in this situation, employees could be more motivated to share relevant information and data collection could eventually be run smoothly.

Anyway, the key point of this sub-paragraph is that researchers and academics should focus: firstly, on the identification of the relevant variables to be employed in the measurement of co-

creation's performance and secondly, in the creation of an instrument that could be potentially used in all sectors and in all circumstances or types of relationships, with little or no adjustments depending on the case.

5.1.3. Customer involvement in co-creation: how should it be measured?

Another problem connected with the identification of the relevant variables within any type of co-creation framework is the measurement of customer involvement. This matter could be analyzed from two perspectives. The first one is the extent of customer engagement. Co-creation, by definition, does not require a certain extent of customer engagement: thus, it is presumable that such engagement could be very high or rather low; or, again, it could be ideally located on the continuum between the two extremes. How do we measure the intensity of interactions between the provider and its customer? This is not properly a gap of the literature. Indeed, many academics studied the correlation between customer participation and the co-creation's performance (Hunt et al. 2012; Ennew & Binks 1999; Chan et al. 2010; Hsieh et al. 2004); rather, it is a matter of understanding which is the best way to measure the extent of such participation.

The second issue concerns the type of involvement. Where does the customer intervene? Does the customer simply make use of the service provided by the firm? Alternatively, does the customer create a new product together with the company by participating in the innovation process? Or again, does the customer take part in the production of an existing product that suits his or her particular preferences?

The first issue is quite relevant and entails many complexities. These complexities mainly arise from the interactions, which could take a variety of forms and, especially for this reason, are not easily measurable. Indeed, interactions are the core of any type of co-creation arrangement, being co-creation itself a dialogical process between the customer and the provider (Ballantyne 2004). However, are interactions always visible? From this, can researchers measure them? It basically depends on their nature. Direct interactions are visible and controllable by the provider. These types of interactions occur when the customer's and the firm's resources interact through an active, ongoing and coordinated dialogical process. Here, the customer directly influences the provider's decisions. For instance: the customer requests an upgrade of his or her hotel room; alternatively, he or she rents a vehicle asking for children's car seats (Grönroos & Voima 2013). These types of interactions are visible and they directly influence the value creation process.

However, how do we measure indirect interactions? They represent the other relevant part of value co-creation, but are they measurable? The aforementioned authors do an excellent job in explaining the key determinants and the relevance of indirect interactions. First of all, they distinguish between two main types of indirect interactions within co-creation:

- The first category refers to those situations, in which the customer uses the outputs of the firm's processes; this happens when direct interactions end and the customer independently experiences the good or the service.
- The second category of indirect interactions is attributable to the phase of value facilitation, before direct interactions take place. Here the service provider facilitates the customer's value creation through resources and processes (Grönroos & Voima 2013).

The problem is that these types of interactions are not easily measurable, even if they are extremely relevant, as posited by the authors above. After a certain point in the value creation process, these types of interactions are not visible anymore and they simply exit the provider's control sphere (Shostack 1982).

Another potential way to measure the degree of customer involvement is represented by the amount of resources the customer contributes to the collaborative value creation process. Here, complexities could be even more significant than before. It is indeed almost obvious that resources are not just tangible objects, but could easily be intangible: the customer can contribute his or her knowledge, experiences, creativity. Rather, these types of contributions are typically more meaningful than tangible resources in a context of co-creation or co-production.

Hobfoll (2002), for example, provides a good classification of any individual's resources: he distinguishes between material resources, condition (e.g. social status), self (e.g. self-efficacy) and social resources, together with energies (e.g. knowledge, time). By looking at this classification, it is immediately perceivable the preponderant role taken on by intangible resources.

Another complexity is given by time: a major resource that customers employ in co-production is definitely their time (Etgar 2008). Time is a scarce resource and, for this reason, it entails economic, social and psychological costs for the customers (Etgar 2006). Time could be measured indeed; but, how to measure the other types of related costs listed before?

For all the aforesaid reasons, the measurement of customer involvement is not an easy task for researchers and, in investigating co-creation, they should pay the greatest attention in the choice of the variables that measure participation.

The majority of the papers which considers customer involvement in their empirical analysis, approximated it with the type of participative behavior adopted by the customer, by observing his or her contribution in information sharing, responsible behavior and personal interaction (Vega-Vazquez et al. 2013; Yi et al. 2011; Yi & Gong 2008). However, these analyses focus more on the behavioral perspective, rather than on the degree and significance of customer involvement.

The other matter under advisement is the type of involvement, which is strictly connected to the phase or the phases in which the customer mostly interacts. Here, the problem is different: it is not about measurement, it is about the identification of the phases themselves. Also from this point of view, the literature seems to overlook this part. Do things change whether the customer engage in the production, in the pre-design phase or in the consumption phase? They may change indeed. In this sense, there is a clear lack of researches that study the potential effects of customer participation in one or more of the different value-chain activities. Each of them has its own determinants and peculiarities, so that each of them must be treated separately and the implications of customer involvement should be studied accordingly.

5.1.4. What about the provider?

The majority of papers on co-creation asserts that it, together with co-production, co-design and co-development, brings to very positive results for the firm: satisfaction, loyalty, reduced costs, lower risks, lower uncertainty, increased room for creativity and innovation and so on (Steen et al. 2011; Sanders & Stappers 2008; Mills et al. 1986; Kelley et al. 1990).

Theoretically, this may be right: by involving the customer in their value-chain activities, firms have the possibility to exploit the customer's unique knowledge about his or her precise needs and desires. This should lead to a closer fit of the offering with the customer's needs, a higher perceived quality, to potential novelty and effective differentiation (Hoyer et al. 2010).

It is also asserted that, nowadays, co-creation is one of the most effective manners to achieve a sustainable competitive advantage (Prahalad & Ramaswamy 2004).

But is it always true? Are these hypotheses supported by proper empirical evidence? Unfortunately, not all of them. The academia tends to focus much more on the customer and on the key determinants and implications of his or her behavior during co-creation; in these papers, strongly customer-focused, researchers simply mention the benefits that firms can gain from co-creation, without investigating them in-deep (Ennew & Binks 1999; Steen et al. 2011).

Another strong limitation in this sense is that academics typically overlook the possibility that co-creation (and even more, if possible, co-production) could entail higher costs than benefits. Think about the costs of coordination, the increased stress of frontline employees, the risk of misunderstandings caused by inaccurate communication or the risk of moral hazard when the customer could start to behave abusively.

As a matter of fact, some authors introduced the possibility of risks connected with co-creation, but they did not investigate thoroughly the matter: they simply took into account that these risks exist (Hoyer et al. 2010; Etgar 2008). Nevertheless, this should not be enough: firms need to be aware of the obstacles they may run into by engaging in high-customer-involvement activities and they need to be endowed with the proper instruments to counteract the risk of taking part in co-destructive arrangements.

In this sense, there have been interesting attempts concerning the effects of co-creation and of co-production on frontline employees or on the managers of a certain organization. For example, the effects of customer participation on employee performance, satisfaction, commitment and turnover intention have been investigated (Yi et al. 2011).

This part of literature answered the call for research on the potential link between customer behavior and the firm performance, which is not treated extensively enough (Larsson et al. 1989).

Another interesting contribution is given by Chan et al. (2010): they studied the effect of customer participation on both employees' satisfaction and on employees' stress.

Nevertheless, these analysis focus solely on employees; it would be interesting to understand the implications of co-creation on the performance of the whole firm.

Other issues arise around the nature of the provider. The provider, in fact, could be any type of subject: co-production, for example, could be promoted by a multinational, a small enterprise, by a public entity or by a professional who is working without a structure behind him or her. This is a key point that is necessary to underline: the majority of researchers focuses solely on structured firms and, mainly for this, they study the effects of customer engagement on frontline employees (Yi et al. 2011; Groth 2005; Yi & Gong 2008; Chan et al. 2010).

But, what if the co-production agreement simply entails a one-to-one relationship between a customer and an independent contractor? Here, things are different. There are not frontline employees nor managers. There are not organizational rules to be taught or specific training programs to "socialize" the customer into the organization (Kelley et al. 1990). The relationship is mostly unstructured and implications, for this reason, should be different.

The closest attempts to analyze this matter could be attributable, among the others, to Ennew and Binks (1999) and Auh *et al.* (2007). They considered professional services, namely financial services. They studied the relationship between the broker and his or her customers and the potential consequences of customer's participation on satisfaction.

Nonetheless, the broker, even if working independently from others, is still working for a bigger organization and scales and measures were framed accordingly.

To conclude, even if the aforementioned papers cite continuously the importance that co-creation has on firms and organizations in general and how this practice is likely to be beneficial for them, researchers should now focus on the investigation of these positive effects, without overlooking the fact that organizations can also run risks and incur costs.

At the same time, researchers should better differentiate between firms and unstructured independent contractors, professionals or freelancers: even if co-creation maintains its main characteristics, the implications could vary depending on the type of relationship and on the nature of the subjects involved.

5.1.5. Co-destruction happens

This is probably the main limit that, currently, affects the literature. Co-creation is extensively treated in many of its aspects and the beneficial consequences of customer involvement are often exalted.

Now, it is licit to ask ourselves some questions: does co-creation always bring to positive results? Is it always a reason of improved performances? Does it always lead to higher-quality outcomes? As everything, if managed incorrectly or poorly (Hoyer et al. 2010), also co-creation does not necessarily lead to the expected results, but, instead, it could cause value destruction. In this specific case, it takes the name of co-destruction.

Remember indeed that services (which are the main focus of the literature about co-creation and co-destruction) are generally susceptible to failure because of their intrinsic characteristics: the intangibility, the dependence on human performance and the inseparability between provision and consumption (Patterson et al. 2006).

The poor management of the interactions arising from co-creation is not the only reason why these kind of projects may fail to create value. There could be a variety of causes behind value co-destruction defined as “an interactional process between service systems that results in a decline in at least one of the system's well-being” (Plé & Cáceres 2010, p.431).

Of course, it is not visionary to think that the customer is dissatisfied with the product designed and manufactured together with the firm; at the same time, it is certainly possible that the firm incurs high costs and wastes valuable resources in pursuing co-creation, without receiving any benefit back.

The literature has found the following potential causes of co-destruction, even if there is few empirical evidence to support these hypotheses: incongruence of practices (Echeverri & Skålen 2011), increased complexity (Roser & Samson 2009), poor coordination of processes (Steen et al. 2011), misuse of resources (Plé & Cáceres 2010; Smith 2013), diminished control over the project (Roser & Samson 2009) and customer's lack of required skills (Etgar 2008).

As postulated throughout the fourth chapter, entirely dedicated to value co-destruction, only the misuse of resources (Smith 2013) and the incongruence of practices (Echeverri & Skålen 2011) have been tested in practice.

As a matter of fact, these are not the only reasons why a co-created project may fail: for instance, the customer can adopt dysfunctional behaviors; the two parties involved are just too diverse and cannot possibly reach a compromise; the firm fails to understand the actual desires of its customers.

Hence, there could potentially be infinite reasons for the failure of a co-creation relationship; the problem is that, only few of them are actually considered, and most of the times, only superficially.

The *increased complexity* arises as a consequence of the different perspectives involved in co-creation: the provider, indeed, does not simply manage its employees and its resources in general, but it has to handle also the customer and, of course, his or her resources. In this specific situation, the provider needs to find a compromise between the firm's and the customer's objectives and interests (Hoyer et al. 2010; Roser & Samson 2009).

Extra *coordination efforts* are another difficulty, which is strongly intertwined with the increased complexity and the diversity of perspective involved. Coordination issues are closely linked to matters as the rightness of the communication channels between the customer and the provider, the management of customers as partial employees, their role definition and adaptation. Obviously, coordination requirements, constraints and other types of costs, both monetary and non-monetary, increase with the numbers of co-creators included (Neeli Bendapudi & Leone 2003).

The *misuse of resources* is probably the major co-destruction determinant studied in literature (Plé & Cáceres 2010; Smith 2013; Spohrer et al. 2007). The misuse of resources could be accidental or intentional and it occurs when the organization fails to offer the expected resources

within the co-creation process or fails to co-create the desired value, in the form of a resource gain for the customer (Smith 2013). From this, it is necessary to underline the key role of customer's expectations and desires. These are the starting points to assess customer satisfaction or customer dissatisfaction.

Another complexity is represented by the *diminished control* the firm has over its own processes; since the customer is now involved in all or some of the value-chain activities, he or she has the power to make decisions and to give suggestions. He or she is empowered, and such empowerment could lead to increased uncertainty and job stress (Chan et al. 2010). The provider now depends also on outside collaborators (i.e. its customers) (Roser & Samson 2009).

Finally, the possibility that the customer may be totally unprepared and professionally (i.e. *lack of expertise*) unqualified should definitely not be overlooked. Yet it is. Etgar (2008) recognizes that customer's expertise, together with his or her dialogical capability, could facilitate co-production. Anyway, this point is only marginally treated. Nevertheless, customer's competence (or incompetence) could have significant implications on the ultimate performance of co-creation. Think about highly professional services (e.g. architects, engineers, lawyers): does customer involvement influence positively the quality of the outcome? Or, on the contrary, is it an element of annoyance and a reason of increased stress on the shoulders of the provider? These matters definitely deserve a wider attention from the academia.

As a matter of fact, besides the literature that focuses on the potential reasons of co-destruction, there is also evidence of some studies on the implications of co-destruction (Heidenreich et al. 2015; Dong et al. 2008). These researches aspire to explain how higher customer involvement could lead to higher dissatisfaction with respect to non-participatory relationships. The idea is the following: if customers are strongly engaged in co-creation, they devote more resources to the process in terms of effort, information and time. Accordingly, they expect highly tailored services or products; thus, they typically expect a superior output. However, in the event of failure (i.e. when the initial expectations are not met) the customer experiences dissatisfaction. In addition, such dissatisfaction is stronger if compared with the case where customer participation is minimum.

To conclude this paragraph, the suggestion is to start from the potential causes of co-destruction and to find out if these dysfunctions could be correlated with the scarce performance of the co-creation agreement.

What it is certain is the fact that researches seem to avoid co-destruction in their analysis, by focusing solely (and too optimistically) on the enhanced value created by co-creation.

It could certainly be possible that the cases of value creation, in practice, overcome the cases of value co-destruction; anyway, since there is evidence of negative service encounters (Gremler et al. 1994; Keaveney 1995; Echeverri & Skålen 2011) and since failures are part of everyday life in business, co-destruction needs to receive the attention it truly deserves.

5.2. Field and purposes of the research

The main aim of this research is to clarify, as much as possible, the nature and the determinants of the most significant co-creation variables and to explain how they could and should be used in the measurement of a co-creation relationship.

In particular, the point of view we decided to adopt is somehow different from that belonging to the majority of the literature on the topic (Vargo & Lusch 2004; 2006; 2008; Grönroos & Voima 2013; Grönroos & Ravald 2011). Indeed, we contend that most academics overly privileges the investigation of the benefits arising from co-creation, thus significantly overlooking its main risks and associated costs.

Hence, our standpoint better couples with the themes introduced by co-destruction researchers (Echeverri & Skålen 2011; Plé & Cáceres 2010): indeed, we recognize that co-creation could lead to significant beneficial outcomes. At the same time, though, we contend that this practice entails also risks and significant challenges. Concisely, we agree on the fact that co-creation and co-destruction are both equally probable and thus, they could both affect a relationship.

From this, we need to assess how a participatory relationship ultimately performs. In particular, if customer involvement actually influences the performance of co-creation. In turn, if such potential influence is negative or positive.

Before actually engaging in any empirical analysis, a researcher must know the tools and the relevant variables to perform it properly. Our aim is indeed to identify the main variables within a participative relationship to be used in the measurement of its performance; namely, to investigate if there actually exists a correlation between the participation of the customer and the performance (whether negative or positive) of the relationship.

Of course, bear in mind that every relationship has its own peculiarities and determinants. Hence, total generalization is practically impossible to achieve. This means that the variables we suggest could be suitable in some settings, but they could be potentially useless in others. However, co-creation arrangements share some common features, which will be exploited in order to perform the most accurate analysis possible.

The main questions we aspire to answer are the following:

- *Which is the best way to measure customer involvement?*
- *How do I measure the overall performance?*
- *Are customer involvement and the final quality of the output correlated?*

Co-destruction, in this sense, is particularly important. Even if our starting point is represented by the literature on value co-creation and on the Service-Dominant logic, our research could be placed within the literature contributions on co-destruction. Why so? Because we immediately assume that failure could happen and thus that performance could be negative.

Our assumption is the following and it is mainly based on the concept of expertise and competences. The provider (being a firm or an independent contractor) owns the knowledge. A specialized manufacturer knows how to assemble the single parts of an engine or how to design an expensive piece of furniture. A broker, thus a professional, is probably graduated in finance, knows the financial regulations, the main financial instruments and so on. *The provider knows how to get the job done.*

Now, pick an ordinary customer, who knows the product or the service he or she is about to purchase. At the same time, the customer typically does not know anything (or a little) about the procedures implemented to make this product or service see the light of day.

Let us introduce co-creation: the customer is now actively involved in the creation process. Let us forget for a minute that the customer could potentially intervene in every single stage of the manufacturing/service delivering process and just think about what co-creation simply entails: stronger interactions, a potentially higher probability of time wastes, significant coordination efforts and compromises due to the diversity of perspectives, tastes, behaviors and backgrounds. A great part of the literature (the majority) optimistically contends that co-creation is likely to shift a part of the employee's (or provider's) job tasks to the customer, thus decreasing workload and stress and that these are the conditions to improve satisfaction, innovation and loyalty (Mustak et al. 2013; Yi et al. 2011; Mills et al. 1986). This approach may be true and verified in some contexts (e.g. automated services), but completely inappropriate in others (e.g. co-development of an innovative product).

Echeverri and Skålen (2011), together with the other researchers that criticized this extremely optimistic view of value co-creation (Smith 2013; Plé & Cáceres 2010; Prior & Marcos-Cuevas 2016; Vartiainen & Tuunanen 2016), already pointed out that value co-destruction is a crucial reality and need to be carefully managed and, possibly, counteracted.

In this sense, our explanation for co-destruction is the following: the customer expects to take on an important role in value co-creation and thus feels more empowered and higher in status.

The customer knows that he or she potentially has the valuable opportunity to decide how the product/service will look like. Thus, his or her expectations are quite high because he or she knows that there will be the chance to play such a big role.

In practice, is this (i.e. customer higher involvement and empowerment) a good aspect? The majority of academics thinks so. Their explanation is that the customer could help the enterprise to figure out what is actually demanded by the marketplace, thus decreasing the risk to offer inappropriate value propositions (Steen et al. 2011; Hoyer et al. 2010; Prahalad & Ramaswamy 2004).

Conversely, we contend that sometimes customer participation constitutes itself a risk. The explanation is perceivable by simply looking at the short examples provided above. *The provider knows how to get the job done.* The customer typically lacks the proper expertise to effectively manage co-creation; he or she is not fully aware of the existing limits, boundaries and the other technical or professional issues.

At the same time, being understood what said above, it is also true that the customer typically knows what he or she wants (at least partially). Indeed, the customer knows that he or she desires a certain product with a certain set of customized features. The firm does not, so that it must acquire these set of information from the customer. By looking at the matter from this perspective, issues and complexities are mainly likely to arise as a consequence of customer interventions and interactions *on the manner (or the processes) through which the product or the service is designed, shaped, manufactured and delivered.* Thus, the focus, here, is on how to concretely make the product or provide the service, not on the type of product or service to be developed.

Consequently, there are cases in which the provider risks to waste time and other valuable resources, thus potentially bringing to a bad working relationship and environment. Besides such relational downturn, both the provider and the customer could end up with an unsatisfactory outcome, in terms of quality, among the others.

Bear in mind that, even if the starting assumption of our work comes from the lack of expertise of the customer, there could be a variety of reasons for co-destruction.

Now, we need to investigate if customer participation does actually have an impact on the performance of the relationship. Thus, in the end, we could say whether a certain collaborative project brings to value creation or to value co-destruction.

To do this, the central aim of this work is the identification of those variables that, among the others, could be used in the measurement of the performance of a co-creation arrangement,

trying to focus on their significance and on their potential for generalization to different contexts.

Thus, the following paragraphs will address two main matters: firstly, the different ways to measure customer involvement, with a particular focus on its intensity. Secondly, the different ways to measure performance, toward the best possible alternative.

5.3. Toward the identification of the most significant variables to investigate the relationship

This last chapter will offer an overview of the main instruments that could be potentially employed in the analysis of a co-creation relationship. As already announced, it will mainly focus on the measurement and investigation of customer involvement and on the assessment of the performance of co-creation, through the identification of the most significant variables.

Before these sections, a synthetic part of the chapter will be dedicated to the different co-creation stages and to their potential implications and usefulness in practice.

5.3.1. Where does the interaction take place? The phases of co-creation

This point is not that useful for the purposes of our analysis, but, in our opinion, it should at least be introduced to offer a more comprehensive perspective on co-creation.

Indeed, our principal aim is the identification of most relevant variables to be used in the investigation of a cooperative relationship, as co-creation.

Mostly, we want to provide some instruments that, hopefully and ambitiously, could help further research to expand the available empirical research on co-creation and on co-destruction.

This is why, the classification of co-creation phases and their inclusion in our analysis is somehow redundant. First, we need to consider and explain customer involvement and the ultimate performance and test if they are correlated, to provide the most general analysis possible.

Only then, in our opinion, one can focus on the implications that the involvement in each phase of co-creation (e.g. design, production, after-sale support) could have on the overall performance of the relationship.

Indeed, co-creation does not always happen in the same way, but it is characterized by different facets and it certainly depends on the type of relationship established between the two (or more) subjects involved. Thus, there could be infinite factors to influence the style and the evolution of the relationship: parties' behaviors (Yi et al. 2011) educational and professional background in terms of expertise and competences (Etgar 2008; Sanders & Stappers 2008), the sector of activity and the type of service or product subject to co-creation (Etgar 2008).

Moreover, and most importantly, determinants and implications may differ from relationship to relationship depending on the stage where the customer gets involved.

In this sense, there is no clear direction in the literature and the understanding around co-production, co-design and co-development is nowadays still confused.

This is why, to avoid complexities and misunderstandings, we invariably used the term "co-creation" throughout this work, even if in some instances the word "co-production" would have been more desirable. Somehow, we followed the indication of the majority of the literature, which contends that co-production (as co-design and co-development) is a particular instance of co-creation.

Now, if we want to include in our framework of analysis the specific stages where the customer may intervene, the work risks losing its primary purpose: that is, the possibility to be extended to a wider selection of samples, so that to be essentially more general. It is indeed quite obvious that participation in service delivery is completely different than customer participation in manufacturing; likewise, involvement in the pre-design phase entails different aspects than the same involvement during after-sale support.

These suggestions and speculations, of course, should not erase or limit the possibility to include co-creation phases within a certain analysis, for instance, to simply find out where the customer has participated the most.

We need also to observe that customer engagement is not linear nor it is his or her participation in one or more stages (Etgar 2008; Grönroos & Voima 2013). What do we mean by this? The customer could interact in one phase solely or his or her contribution might encompass each stage of value creation, from the identification of the need to be satisfied to the after-sale support.

Even for the firm, different customers could act and behave alternatively within the same project, depending on their attitudes, need of empowerment, expectations, motivations and expertise. For instance, a customer with higher expectations is more prone to engage significantly than a customer that is barely motivated and does not hold particular expectations (Neeli Bendapudi & Leone 2003).

These infinite possibilities (and the correspondent infinite value co-creation configurations) drastically increase the complexity of the analysis.

This is why, including this particular aspect in the research could lead to difficulties that might be difficult to manage. Namely, by including it, we should restrict the validity and usability of our research to a particular stage of co-creation.

Anyway, for clarity purposes, we contend that it is remarkable to identify the relevant stages, where the customer could invest his or her resources.

Even in the classification of the different types of activities where the customer could give his or her contribution there is no unanimity, since each scholar brings about his or her particular standpoint on the phases of co-creation (Etgar 2008; Grönroos & Ravald 2011; Grönroos & Voima 2013; Sanders & Stappers 2008).

Moreover, a great part of the literature focuses much more on the consumption phase (where value-in-use emerges) rather than on the precedent phases, that are mostly attributed to the firm's control sphere (Vargo et al. 2008; Grönroos & Ravald 2011; Grönroos & Voima 2013). Anyway, it is well known that the customer could access the firm's activities before consumption to customize a certain value proposition.

Now, we will try to offer a classification of these different stages that aims to be the most accurate possible; remember that each of these phases entails different implications and, most importantly, that also most relevant variables could change.

The categorization we propose is the following (adapted from Ullman, 2010):

1. *Product discovery*: the need for a certain product or service is established. Here, the customer's expectations and willingness to share relevant information about his or her needs and desires play a key role. Indeed, the customer should be particularly clear in delivering the right set of information to the provider, in order to identify the type of product or service that will be co-created at a later time. Unfortunately, sometimes customers are not that effective in conveying such data about their preference (Gustafsson et al. 2012); thus, complexities could arise even during this early stage.
2. *Project planning*: during this phase, resources are identified, planned for and organized. In co-creation, it is not just a matter of the firm's resources, but, more importantly, of the customer's resources. Possibly, we can include in this stage also the definition of roles and correspondent tasks. For instance, complexities could arise in relation to inefficient organizational socialization (i.e. customers are not exactly and precisely told what to do and how to behave within the organization) (Kelley et al. 1990).

3. *Product/Service definition and conceptual design*: during this stage, most important decisions are typically made. It is about understanding main problems and comparing the ultimate design of the product/service with the expectations disclosed during the first step. Everything is prepared before actual production/provision takes place. Complexities here are various: the customer could be unprepared and could lack the required expertise (Etgar 2008); he or she could behave opportunistically and contribute inappropriate or scarce resources (Plé & Cáceres 2010; Ertimur & Venkatesh 2010); or, again, there could arise some complexities in the achievement of a fair compromise between the desires of the customer and the expectations of the firm, because of their diversity of perspectives (Prior & Marcos-Cuevas 2016).
4. *Product/Service development*: the product or the service is produced. This phase is by nature managed by firms; however, in co-creation (or, to be fair, co-production), the customer is engaged in the production process. Complexities are quite relevant and very similar to the previous phase: the lack of customer expertise, in particular, plays a determinant role.
5. *Delivery and consumption*: the goods and the service is delivered and consumed by the customer. During this stage, according to the dominant literature perspective, value emerges from the process (Vargo & Lusch 2004; 2006; 2008). During delivery, in particular, the provider must train employees to be flexible, problem-solvers and pleasant, to possibly enhance customer satisfaction (Chan et al. 2010).
6. *Product/Service support*: after consumption, the provider could be required to assist the customer in the use or in the maintenance of the product or of the service. In this sense, it is interesting to highlight the literature on service recovery, which explores how customers typically react to failed co-creative arrangements after they receive and use the product or the service (Dong et al. 2008; Heidenreich et al. 2015). The firm, indeed, in the case of co-destruction, to counteract as much as possible its negative implications, could engage customers to find the most appropriate solutions.

5.3.2. *The extent of customer involvement*

After a brief overview over the main co-creation phases, we can finally focus on the first variable under consideration. Recall from the previous paragraphs that our main aim is to provide a summary of the most relevant variables to be used in the measurement of the potential correlation between the customer participation and the co-creation performance.

Therefore, the first key variable is represented by the **intensity, extent or degree of customer involvement**.

Customer involvement is needed to assess how much the customer engages in co-creation activities; for instance, how much time he or she spends within the value-chain activities and how many decisions or suggestions he or she makes or provides during the project.

There are countless ways, through which the customer takes part inside a relationship, thus potentially influencing its outcome.

In this sense, the majority of literature focused much more on the definition, study and on the implications of the range of behaviors adopted by customers (*qualitative* perspective); whereas, it tends to concentrate less on the intensity of the participation (*quantitative* perspective) (Yi & Gong 2013; Yi et al. 2011; Lengnick-Hall et al. 2000).

As a matter of fact, there exists a significant quantity of empirical studies (among the others, Vega-Vazquez et al. 2013; Ennew & Binks 1999; Hunt et al. 2012), which postulate that the successful performance of co-creation is positively correlated with a range of co-creation behaviors, that could be also named after “actor engagement styles” (McColl-Kennedy et al. 2015; Van Doorn et al. 2010) (we have already mentioned the consensus around the use of the Yi and Gong scale to test such hypothesis).

Moreover, we need to underline that the aforementioned analyses focus primarily on value co-creation, thus modeling variables without taking into considerations other types of behaviors, namely dysfunctional, abusive or opportunistic behaviors, which can actually impact significantly on the outcome.

These researches certainly assume a remarkable role in describing and explaining how customer’s (and employee’s) behaviors can beneficially affect the outcomes of co-creation; however, we would like to offer a different perspective, without engaging in the analysis of behaviors and focusing better on the **intensity** of the relationship.

Another key measure considered and adopted by the literature in the empirical researches is the assessment of the extent of resources provided by the customer during the project. We need to underline that this type of perspective is also used in the investigation of co-destruction (Smith 2013; Agrawal & Rahman 2015; Uz Kurt 2010; Plé & Chumpitaz-Càceres 2010).

This method could be particularly accurate, because it allows to understand which types of resources the customer contributes the most and how each class of them correlates with the performance of co-creation. At the same time, this instrument is not immune from complexities, especially for what concerns the measurement of intangible resources, such as knowledge or

expertise. Moreover, this type of tool could be significantly context-dependent, because the classes of contributed resources could highly vary from relationship to relationship.

Now, which is the best alternative?

Recall that the key purpose is to provide the most usable and accessible instrument possible. To do that, we need to exclude those variables that might be extremely difficult to measure and those that are useful only in limited contexts. Therefore, we need to look for variables that are both **easy to use** and **generalizable**, even if adopting the necessary precautions depending on the specific circumstance.

Given this, we think that the smoothest way to measure the participation intensity is, put simply, by classifying the degree of customer engagement on an ideal scale: for instance, by asking the customer (and the provider) if his or her involvement in the project was low, discrete, medium or high. This method implicitly refers to the involvement in terms of, among the others, daily interactions, efforts and decisional power in the hands of the customer.

Of course, this constitutes a strong approximation, because it is just an estimate of the intensity of participation. Anyway, for our purposes, it is the best way to effectively test if high involvement (measured on an ideal scale, as postulated before) actually leads to negative (or positive) outcomes in terms of performance (Hsie et al. 2004; Bloemer & de Ruyter 1999).

These matters will be properly addressed in the following dedicated sections. In particular, the present paragraph about customer involvement's measurement will present the two mainly used tools by the literature (i.e. participative behavior and resource contribution) and it will then end with a brief explanation of why we think it is better, according to our purpose, focus almost exclusively on the intensity of such involvement.

Moreover, since perspectives are not homogeneous and customer participation has been and it is being measured in a variety of ways, at the end of the present section, we will present a summary prospect about the most famous participation scales and measures developed in recent years by the literature.

5.3.2.1. The assessment of the customer's participative behavior: a qualitative approach

Before starting with the description of this widely shared approach (which is indeed particularly appreciated by the literature), we must clarify why we adopted the expression “qualitative” to describe it.

The fact is that, since we aspire to investigate the intensity of customer participation, so that the engagement in quantitative terms, the measurement and observation of co-creation behaviors essentially provides a qualitative perspective of the relationship. Indeed, it is about how the customer behaves, not how much he or she interacts with the provider. Again, it is about the type of engagement, not the extent.

Hence, we want to set aside, at least to the end of our research, all those determinants and variables that typically refer to the qualitative side of a certain co-creation relationship. They could be highly subjective and significantly context-dependent.

Anyway, the success of the elaborations initially introduced by Groth (2005) and then proposed again and formalized through the Yi and Gong scale (Yi & Gong 2013) is well known and, therefore, led us to insert their method of analysis (i.e. customer participation measured in terms of adopted behaviors) in this work. To better recall, customer participative behavior, as defined by the aforementioned authors, is represented by a bundle of different conducts adopted by the customer within co-creation relationships.

Its main dimensions are the following:

- *Information seeking* (i.e. customers seek information to clarify their position within the project and to reduce uncertainty);
- *Information sharing* (i.e. the extent and relevance of the set of information provided by the customer);
- *Responsible behavior* (i.e. customers recognize their duties and responsibilities and they accept the directions of the provider);
- *Personal interaction* (i.e. the type of personal interactions established between the two parties involved; it includes aspects such as friendliness, courtesy and respect).

Participative behavior, as defined and classified above (also named after *in-role* or *co-production behavior*), is typically investigated together with the other class of customers' behaviors, known as citizenship behaviors. The majority of the literature, to assess the performance of co-creation, in particular its positive outcomes, made use of such instruments and assessed the aforementioned dimensions. In particular, they tested the correlation between customer behaviors and the co-creation performance (typically measured in terms of customer satisfaction) (Vega-Vazquez et al. 2013; Ennew & Binks 1999; Yi et al. 2011).

The Yi and Gong scale (Yi & Gong 2013) was indeed effectively used by Vega-Vazquez *et al.* (2013). They hypothesized a positive correlation between customers' behavior within co-creation (not only participative, but also citizenship behavior) and customer satisfaction with the service. To do that they used 29 items to measure each single facet of customer behavior

and investigated which of them, among the others, have the greatest effects on customer satisfaction.

A very similar approach was adopted by Ennew and Binks (1999): in their model, they postulated that customer satisfaction is a result of quality, of the atmosphere surrounding the relationship and of participation. How do they define customer participation? They used the same qualitative approach: participation is a blend of information sharing, responsible behavior and personal interaction.

Another approach (which, conversely, investigated the implications of co-creation on employees), was presented by Yi *et al.* (2011). In particular, they hypothesize that customer participative behavior relates positively to employee performance, satisfaction and commitment. Why so? Because, in their opinion, customer participative behaviors could make employee's job easier and could potentially shift a significant part of their workload to the customer. At the same time, from the relational point of view, this lighter workload makes employees more willing to engage in better and more pleasant relationships with their customers. In a nutshell, there is room for a strong beneficial effects enacted by such customer participative behavior, which in this case is simply defined as "all forms of customer involvement and engagement in the value-creation process. [...] Customer participation behavior relates to enforceable or explicit required in-role behavior." (p.88).

Anyway, even if these researches could represent a significant starting point in the analysis of the manners through which customers typically participate in a co-creation relationship and even if they allow managers to understand how they can improve the positive effects of customers' involvement by effectively acting on their behaviors, they do not fit the main purpose of our study.

In particular, we contend that this type of analysis is, as introduced before, still too qualitative. Our perspective aspires to be more quantitative, thus to measure the intensity, putting aside the behavioral side. Of course, we must observe that behavioral variables play a key role in co-creation, because they could constitute the starting points to develop effective co-creation strategies. For instance, to privilege a more extended analysis, it could be interesting to introduce some relevant behaviors in the model (such as information provision or the type of personal relationship established with the provider) to assess if they have a moderating effect on the ultimate performance.

To summarize, the main limitations of this type of approach are the following:

- It could be highly context-dependent;

- Behaviors are difficult to measure and to investigate;
- It completely overlooks negative/dysfunctional customer behaviors; indeed, each of the aforementioned researches analyzes solely customer positive behaviors. To favor a more comprehensive and accurate analysis, researches, in analyzing the correlation between participative behaviors and the ultimate performance of co-creation, should consider both positive and negative set of behaviors.
- In the end, it is not useful to assess the intensity of the relationship.

5.3.2.2. *Resource contribution: a remarkable focus on effort and commitment*

The success of any co-creation arrangement depends highly, among the others, on the type and on the amount of resources contributed by the customer to the project. Most importantly, on how the customer's and the provider's resources are blended together to achieve ultimate value creation.

By simply using the general word "resources", one may include almost everything in its definition. Think about customer's expertise or knowledge: a notable customer's expertise might indeed help to achieve the best results possible and could actually avoid a huge amount of problems. At the same time, resources are also represented by money, time, effort and relationships with other customers, among the others.

The extent of resource contribution by the customer as an assessment of participation is theoretically appropriate. We must indeed observe and recognize that everything, in co-creation, starts from the fact that both subjects (i.e. the provider and the customer or the customers) contribute a certain amount of resources to the project and, in return, they expect some benefits at the end of their experience. For instance: the customer expects a fully customized product or service that he or she particularly likes because of its unique tailored attributes. The firm expects to gain benefits in terms of satisfaction, loyalty and improved knowledge about customer's needs. Besides, there is also room for improved financial results and a better economic situation.

Resource contribution is thus the base of any participatory relationship.

This type of approach to customer participation, together with the type of participative behavior described in the previous paragraph, has been already taken into consideration and explored by the literature. Moreover, and differently from the analysis of customer's behaviors, it was also used in the investigation of co-destruction (Smith 2013).

Indeed, the only definition of co-destruction frames it in terms of resource loss and namely: co-destruction “is an interactional process between service systems that results in a decline in at least one of the systems’ well-being”, where “loss of well-being” is conceived as a loss of resources (Plé & Cáceres 2010, p.431).

If we adopt this perspective, then we must see the customer as a *resource integrator* in the firm’s value creation strategies and processes (Agrawal & Rahman 2015).

The first thing to do in analyzing the type and the extent of resource contribution is to choose the proper categorization of resources, bearing in mind the peculiarities of a certain co-creation arrangement.

The main distinction (and the most general one) is that between *operant* and *operand* resources: this distinction is one of the core themes of the S-D logic and of co-creation: indeed, *operant resources* (i.e. those resources that act upon others, as knowledge and skills) are considered as the keys for competitive advantage (Vargo & Lusch 2004; 2006; 2008; Vargo et al. 2008).

Operant and operand resources could in turn be classified into more specific categories of resources. In this sense, the classifications available in the literature are various.

This is why we just propose some of them: in particular, those that have been mentioned in the literature about co-creation and co-destruction.

Some, for instance, discern between *physical*, *social* and *cultural* in the field of operant resources and *economic* for what concerns operand resources (Price et al. 1995).

Another useful classification is provided by Maglio and Spohrer (2008), who distinguish between resources with rights, resources with property, physical entities and socially constructed resources.

Another one, particularly accurate, is summarized in the following table (adapted from Madhavaram & Hunt 2008; Agrawal & Rahman 2015):

Type of Customer Resource	Examples
Financial	Money, Material, Physical Space
Physical	Strength, Energy
Legal	Protection Rights, IP Rights
Human Cultural	Tacit Knowledge, Status
Organizational Cultural	Skills, Knowledge
Informational	Feedback, Shared Information
Relational/Social	Customer Communities, Commercial Relationships

Table 4 – Classification of resources in co-creation (adapted from Madhavaram and Hunt, 2008; Agrawal and Rahman, 2015)

In the end, we must include the categorization provided by Hobfoll (2002), in particular because this one was used in the study by Smith (2013) to investigate the implications of co-destruction from the point of view of the customer. She hypothesized that resource loss (or, better, the misuse of resources) is directly related to the decline in at least one party's well-being (following the aforementioned definition of co-destruction provided by Plé and Chumpitaz-Càceres, 2010). To do that, the author took into consideration the variety of resources contributed by the customer, classified according to the following terms: *material* resources, *conditions*, *self*, *social* and *energies* (Hobfoll 2002).

Other literature contributions in this sense comes from Auh *et al.* (2007) and Lengnick-Hall *et al.* (2000). The first contend that customer loyalty (both affective and behavioral) could be a result of co-production, which, among the others, is correlated with the client expertise. Client expertise is indeed a type of resource, which, in the classification provided above, could be included among the human cultural resources.

The second assert that customers influence co-creation outputs through their *inputs* to the organizational assets. Therefore, also in this case, we are talking about resources.

Again, Uzokurt (2010) concluded that customer participation is an expression of a set of contributions (i.e. resources) to a certain project, which are categorized as follows: *informational*, *physical*, *behavioral* and *emotional*.

The measurement of the customer's contributions in terms of resources probably is, theoretically speaking, one of the most interesting tools available to measure customer involvement (its type and, somehow, its extent) during co-creation.

At the same time, we have indeed seen how it could be complex to measure behaviors, interactions and the others intangible characteristics of the relationship. It is sufficient to take a look at the categorization proposed above to understand that resources are mainly intangible and extremely complex to measure. If it is straightforward to assess the amount of money the customer invests in a certain co-created project, the same cannot be said for the energy and the knowledge he or she provides.

Moreover, how to classify the importance of each type of resource in comparison with the others? How could this approach be easily generalized?

Unfortunately, also this perspective, is strongly context-dependent and posits a variety of problems in the measurement of a co-creation relationship.

5.3.2.3. *Estimation of the intensity: toward extreme simplification*

The last two paragraphs briefly described the most used tools to measure customer participation, even if the focus is still too qualitative and researches on the topic are still too optimistic somehow.

As asserted throughout this last chapter, we want to keep everything fairly general.

The idea is to identify variables that are relevant, but that are simple too.

This is why to measure customer involvement, as postulated before, we simply suggest to rate the degree of participation of an ideal scale, which can be drafted according to the specific case to be analyzed.

This could sound obvious. It is fairly basic to divide between low, moderate, high involvement or by asking the customer to rank his or her involvement on a Likert scale.

It is obvious, but it is easy, simple and immediate. For example, if the customer is required to fill in a questionnaire, in the case he or she is asked an elementary question like this, the answer could take less than five minutes.

At the same time, this method still provides a good approximation of all other concepts related to co-creation: indeed, in assessing his or her degree of participation, the customer implicitly takes into account the resources he or she devoted to the project, the number of interactions with the provider and how much he or she participated in the decision-making process, through simple suggestions or rather important decisions.

Therefore, even if this method constitutes a great simplification (and approximation) of the reality, it still considers all the key determinants surrounding a participative relationship, summarized, in this case, in the intensity of the participation.

This method was partially used, among the others, by Hsie *et al.* (2004) to investigate the correlation between customer participation in co-creation and employee's workload. Even if they still considered the different dimensions of co-production behaviors, they divided between three basic levels of customer participation:

- *Low* (i.e. customer presence is simply required during service delivery);
- *Moderate* (i.e. the customer must provide some inputs during the service creation);
- *High* (i.e. highest level of co-creation).

The same is done by Zeithaml *et al.* (1996), who, to perform their research, categorized customer participation along three directions: *what* customers do to participate (i.e. the amount of information they share), *how* they participate (i.e. put simply, how they interact with the provider) and *how much* they participate (classified into low, medium or high).

This approach could be modified, adapted or improved. An interesting improvement is represented by the possibility to include in the model the various stages of co-creation and to assess in which of these phases the customer engages the most. This could lead to interesting implications in practice, since firms (or providers in general) could assess where the customer is more effective, or where, for instance, it should be involved less.

To conclude this paragraph, we will provide a summary prospect of the main customer participation measures proposed by the literature in recent years. The majority of them are highly qualitative, so that refer to the type of behaviors adopted by the customer during co-creation.

Author	Dimensions of customer participation
Ennew and Binks (1999)	<ul style="list-style-type: none"> - Information sharing - Responsible behavior - Personal interaction
Kelley et al. (1990)	<ul style="list-style-type: none"> - Technical quality - Functional quality
Claycomb et al. (2001)	<ul style="list-style-type: none"> - Attendance - Information provision - Co-production behavior
Yi and Gong (2013) Vega-Vazquez et al. (2013)	<ul style="list-style-type: none"> - Customer participative behavior - Customer citizenship behavior
Kellogg et al. (1997)	<ul style="list-style-type: none"> - Preparation - Relationship building - Information exchange - Intervention
Uzkurt (2010)	<ul style="list-style-type: none"> - Information exchange - Behavioral participation - Emotional participation - Ability to participate
Table 5 – Summary of some of the existing alternatives to measure customer participation (Adapted from Chen and Raab, 2017)	

5.3.3. The outcomes of customer involvement: how to measure the performance of co-creation

The aim of this work is to identify the relevant variables that, potentially, could be used in the measurement of almost any co-creation relationship. We have seen which could be the alternatives to assess customer involvement and, in our case, the intensity of such customer involvement.

Now, how to measure the performance of co-creation?

There could be potentially infinite ways to measure performance, but we must observe that these infinite ways are usually context-dependent.

Our aim is to provide the most robust, significant, reliable, easy and general instrument possible. To do that, we must exclude all those variables that can be particularly accurate in a certain framework, but useless in others. Obviously, this does not eliminate the possibility to use particularly accurate variables, which perfectly fit a precise sector, relationship or, in general, context. Results may be indeed more specific. However, this understood, we aspire to find instruments that can be easily used in different contexts; thus, we adopt a significantly general and all-encompassing approach.

To better understand why some variables are “context-dependent”, we can make use of a very simple example. In investigating co-creation, some researchers have analyzed the benefits of customer participation in new product development (Hoyer et al. 2010; Chang et al. 2016). To assess these range of benefits they employed a set of key performance indicators, namely, among the others, the *speed to market* and the *degree of innovativeness*. Now, in this precise case, these two indicators are actually perfect, because they are very specific and accurate. They capture the real performance of an innovative product or service.

But, is speed to market, for instance, useful in analyzing the performance of value co-creation occurring between an architect and his or her customers? Not at all. In that precise case, we should define or identify other types of indicators. This is why, we must underline the “**generalization-issue**” and the fact that some studies used and uses variables that are employable and appropriate only in that precise context (Chang et al. 2016; Lengnick-Hall et al. 2000).

We can now propose a brief range of notable alternatives.

For instance, we can decide to assess the total costs and benefits arising from co-creation: a sort of “*net present value*” of the investment. Theoretically speaking, this could be strongly

appropriate to measure how the project actually performed. However, it entails significant complexities, in particular:

- It is quite difficult to measure emotional, relational, psychological benefits and costs. How do we measure, for instance, the benefits arising from pleasant interactions?
- There is a sort of “time issue”: some benefits (and some costs) could arise only later on and thus the estimation could be incorrect or partial.
- For a firm, it might be complex to isolate from the overall results, the costs and the benefits arising from a single, specific project.

Another alternative is the calculation of the *economic return* from the co-created product or service. In this sense, some measured the performance of co-creation from three point of views (Chang et al. 2016):

- Operational: how effectively and efficiently the product/service was produced;
- Financial: measured as the economic return from the product/service;
- Marketing: measured mostly in terms of customer satisfaction and loyalty.

In this case, we must observe that the co-creation performance is measured solely from the firm’s point of view.

We need also to underline that the majority of literature focus a way too much on the benefits of co-creation (overlooking its risks and costs), thus mining the robustness of the index itself. Others, conversely, focus too much on the customer, without considering the outcome from the point of view of the provider.

This is the case of the analysis carried on by Lengnick-Hall *et al.* (2000). They measured the beneficial outcomes of co-creation (so that, its performance) in three different directions:

- *Personal development*, in terms of physical fitness and stress reduction;
- *Social development* in terms of time spent with pleasant people; and,
- *Skill development*, arising from the learning of new skills.

Firstly, we need to strongly underline that these performance indicators just consider the customer, without even looking at the provider. Secondly, these variables are quite difficult to capture and measure. Thirdly, the research was conducted overlooking the possibility that co-creation may be negative.

Other techniques focus solely on the relational side of co-creation. These measures actually concentrate exclusively on the customer’s and employee’s relational value (Hartline & Ferrell 1996; Chan et al. 2010). So that, in these cases, respondents are asked to rate the degree of

enjoyment, fun and other emotions-related issues. This is good if we want to investigate a specific aspect of co-creation (i.e. its relational and interactional side), but if we wanted to consider the overall picture, the relational value as performance indicator would be incomplete. Even employee job performance is an interesting tool to assess if the employee (or the provider) worked well during co-creation, but these matter should be addressed carefully. In particular, questions should be answered by supervisors or other people, different from the employee himself or herself.

Which is then the best alternative? Remind that we are looking for an easily manageable and measurable, general, robust and accurate indicator. This is why we decided to choose, among the others, **customer satisfaction** (and, of course, **provider satisfaction**).

This approach is not new in the literature about co-creation, because many researchers have used satisfaction to measure performance, though, most of the time, only from the point of view of the customer (Hunt et al. 2012; Vega-Vazquez et al. 2013; Grisseman & Stokburger-Sauer 2012; Dong et al. 2008; Roggeveen et al. 2012).

We think, indeed, that customer satisfaction is the most robust tool (and, together, easily measurable) to measure the outcome of such a relationship.

Why, then, we should choose satisfaction as an approximation to measure the performance of co-creation?

- Satisfaction is an immediate index of performance; it is significant and highly robust;
- It is easy to use and to manage;
- It could be used to measure both satisfaction and dissatisfaction;
- It could be used for both parties involved;

Now, we need to underline the two last points in particular.

Co-creation involves more than one subject in the process of value creation, they could be two or more of them. We consider the easiest case possible: co-creation between one customer and one provider. The performance of co-creation cannot be assessed just by looking at the customer (or conversely, at the firm) because this assessment leads to partial results. The customer, indeed, could be very satisfied with the outcome, but we cannot always say the same thing for the firm or for the provider in general. Unfortunately, the majority of researches has typically concentrated on customer satisfaction, without even trying to assess how the firm has experienced value co-creation, though most of them clearly state (in listing the limitations of their research) that a deeper focus on the firm's perception of co-creation should be tackled (Ennew & Binks 1999; Hunt et al. 2012; Vega-Vazquez et al. 2013).

As a matter of fact, there are some studies which focused on both perspectives, but they are still too few, if compared with the total quantity of materials about co-creation (Chan et al. 2010).

This is why, we started by saying that the performance should be measured both from the customer's and the provider's standpoint. Accordingly, we identified customer satisfaction and provider satisfaction as the most important variables to be used in any research.

We should focus on how the two parties involved in the same project assess the outcome of the project itself, from two different and opposite point of views.

Afterwards, as purported by the early contributions on value co-destruction, co-creation and co-destruction itself are the two sides of the same coin and they could occur at the same time inside a relationship (Vartiainen & Tuunanen 2016; Echeverri & Skålen 2011). Hence, we recognize that if the customer could gain benefits from the project, the firm could instead be disappointed and vice versa.

This last paragraph will focus on customer and provider satisfaction and it will try to summarize which are the most relevant factors to be considered in measuring them.

5.3.3.1. Customer and provider satisfaction in value co-creation

Customer satisfaction is one of the most studied topic in marketing. Indeed, it is one of the most useful way to understand the opinion of the firm's customers and it is often use as a key performance indicator to assess whether the firm is succeeding in the market or not.

Being a central construct, a variety of studies currently exist and they all assess customer satisfaction in different ways.

In our case, we must study satisfaction in a particular setting, that is co-creation. It is not simply about being satisfied with a product or with a certain type of offering, but with the overall result of a collaborative and dialogical process.

The most well-known definition of customer satisfaction is individualistic and it is based on the so-called *disconfirmation paradigm*: it posits that customer satisfaction arises from an evaluation of a personal consumption experience relative to expectations (Griffin & Hauser 1993; Szymanski & Henard 2001). It simply means that the customer compares the level of his or her initial expectations about the product or the service and the outcome he or she actually receives from the firm. If the outcome is better than what expected, the customer is satisfied, otherwise the outcome is dissatisfactory.

Anyway, we are investigating co-creation and co-creation is collaborative by definition.

In particular, value creation is intrinsically relational, because the firm and the customer are involved into an interdependent relationship toward the achievement of value creation (Vargo & Lusch 2006; 2008).

Hence, a dimension that, in our opinion and in the opinion of others, should and must be considered is what could be named after “*relational satisfaction*”. The customer, indeed, besides being satisfied with the outcome, assesses also the overall relationships and the interactions he or she established with the provider during the implementation of the project.

Customers are not only caring about low prices, great performances and very high quality from an objective point of view: they are always more interested in the seeking of moment of thrills, fun, pride, in order to increase the satisfaction during consumption activities, especially for those categories of services that include a strong experiential part (Agrawal & Rahman 2015). For instance: the outcome could be highly functional and qualitatively good, but what if the customer did not enjoy the production/delivery of that outcome? Of course, it is not as satisfied as in the situation where there were smoother interactions and pleasant communication with the provider.

Moreover, consumers tend to base satisfaction judgements on on-going consumption experiences (Price et al. 1995; Fournier & Mick 1999) and interactions with other subjects are likely to influence the degree of satisfaction or dissatisfaction (McAlexander et al. 2002; Peters & Hollenbeck 2005).

This definition is closely tight to the *community theory* (Muniz & O'Guinn 2001), according to which satisfaction is strongly influenced by the surrounding social environment.

This is why we contend that the level of satisfaction should be assessed also by looking at the relationship created between the two parties involved.

In the end, to offer the most comprehensive view possible, we need to include also an *assessment of costs and benefits*, which is actually tightly linked to the definition of the disconfirmation paradigm. In particular, it is about asking the customer (and the provider) about the perceived value of the co-created project (McDougall & Levesque 2000). Put simply, if borne costs are lower than perceived benefits, satisfaction occurs and vice versa.

Now, satisfaction cannot be measured only from the customer's point of view, but, to perform the most accurate analysis possible, researchers should investigate also the provider's satisfaction.

Here, things depend of course on the type of provider. In the case of big firms, it is probably better to measure the frontline employee's satisfaction. If one analyses a co-creation

relationship between an independent professional and his or her customer, then the professional's satisfaction is investigated.

To conclude, we summarize as follows. Satisfaction, within co-creation, should include the following determinants:

1. **The disconfirmation paradigm:** subjects should compare their level of expectations with the actual output;
2. **Relational/Social satisfaction:** subjects should assess their satisfaction with the personal relationship they established with the counterpart;
3. **Perceived value of the project:** subjects should assess the difference between the benefits and the costs arising from the co-created project.

CONCLUDING REMARKS

This work is highly theoretical and draws on the major sources of literature about both co-creation and co-destruction. In particular, we took the sides of the literature on co-destruction: indeed, we contend that the risks and the costs arising from a participative relationship are a reality that should not be overlooked, but investigated and studied in depth. Indeed, co-creation and co-destruction could be conceived as the two sides of the same coin.

From the first to the fourth chapter, we addressed the main issues concerning co-creation: its origins, its nature, the classification of customer behaviors, the benefits of this practice and, in the end, in the chapter dedicated to co-destruction, its main risks and challenges.

In particular, the first chapter introduced the most important constructs in the field of co-creation.

First of all, the distinction between value-in-use and value-in-exchange (Vargo & Lusch 2004; Grönroos & Voima 2013):

Value-in-use	Value-in-exchange
Value is created, or better extracted, during <i>usage</i> . Value thus accumulates over time through experiences during usage.	Value is created by the firm within the production process and it emerges through the exchange of the product or of the service for money or another kind of utility.

The consequent distinction, closely related to the two connotations of value above, is the one between S-D logic and G-D logic (Vargo & Lusch 2004; 2006; 2008), where the S-D logic assumes value to be value-in-use and the G-D logic, conversely, value-in-exchange.

Service-Dominant Logic	Goods-Dominant Logic
The customer is the <i>co-creator</i> of value together with the firm. The roles of the two parties involved are not distinct, because they create value jointly and reciprocally. Both actors are necessary to create value: the firm produces the goods or delivers the service, but value becomes evident only when the customer makes use of the goods or extracts benefits from the service.	The firm is <i>in charge</i> of the process where value is created, whereas the customer is deemed to be as a mere consumer. Plus, the customer is perceived as a destroyer of value: he or she is getting the product or the service and simply uses it, destroying what the firm has created before. The firm and the customer are two distinct and separate entities, which just interact during the traditional market transaction.

Afterwards, we presented co-creation as a multi-sided phenomenon, which could take the form of *co-production*, *co-design* and *co-development*, among the others. Indeed, there is also evidence of terms such as co-innovation, co-consumption, co-manufacturing and so on (Agrawal & Rahman 2015). We concluded that the aforementioned constructs simply represent different instances of co-creation, in particular, depending on the phase of the process of value creation where the customer interacts the most. We also observed that this perspective is not unanimously shared by the literature, since some authors contend that co-production is related to the Goods-Dominant logic, thus it should be theoretically separated from value co-creation (Chathot et al. 2013).

Another important concept we presented is how customers and providers are seen within co-creation settings. In particular, we observed that they are not anymore *ordinary* customers and providers, but their roles and their typical behaviors change, as a consequence of the participative framework they are part of. Hence:

Customers as partial employees	Providers as value facilitators
<p>Partial employees are defined as temporary participants in the service delivery process of service organizations. They are named so because they typically contribute knowledge and resources in the production process, just like ordinary employees, but without being hired by the firm.</p>	<p>The provider is a co-creator of value together with the customer. The potential value the firm creates during the production process must be delivered to the user, thus by providing potential value, the firm is a facilitator of value for the customer.</p>

The second chapter is customer-focused. We wanted to offer a thorough literature review on how customers typically take part in co-creation, with a particular focus on their behaviors. From this, we presented three main ranges of behaviors: *customer's participative*, *citizenship* and *dysfunctional* behaviors (Groth 2005; Yi & Gong 2013; Spector et al. 2006; Ertimur & Venkatesh 2010).

Participative behaviors	Citizenship behaviors	Dysfunctional behaviors
<ul style="list-style-type: none"> • Information seeking • Information sharing • Responsible behavior • Personal interaction 	<ul style="list-style-type: none"> • Feedback • Advocacy • Helping • Tolerance 	<ul style="list-style-type: none"> • Opportunism • Abuse • Production Deviance • Sabotage • Theft and Withdrawal

We concluded by recognizing that *organizational socialization*, used toward customers as partial employees, is a valuable technique to favor their adaptation within the organization.

The third and the fourth chapter presented the bright side and the bleak side of collaborative relationships: thus, co-creation and co-destruction, respectively. The aim of these two chapters is to provide readers with an overview of the current status of the literature on both topics. In particular, we highlighted how much the study of the positive effects of co-creation is privileged, if compared with the few researches available on co-destruction.

The last chapter represents our contribution.

Our principal aim was to provide the tools to be potentially used in further research to measure any participatory relationship.

We started from this question: **could customer involvement and the co-creation performance be correlated?** And, in turn, **does such involvement impact positively or negative on the ultimate performance?**

From this, we decided to engage in the identification and in the study of the most relevant variables that have been used and that could be used to measure co-creation relationships and their performance.

In particular, in the choice of these variables, we wanted to achieve the following objectives: **accessibility, possibility to generalize and robustness.**

From this, we observed that the literature, in order to measure customer participation, typically assessed the type of *customers' behaviors* or the type (and/or extent) of *resource contribution* and their effects on the co-creation's performance.

Customer participative behavior	Resource contribution
<ul style="list-style-type: none"> • Yi and Gong (2013) • Vega-Vazquez et al. (2013) • Ennew and Binks (1999) • Claycomb et al. (2000) • Yi et al. (2011) 	<ul style="list-style-type: none"> • Smith (2013) • Auh et al. (2007) • Lengnick-Hall et al. (2000)

Conversely, we identified **intensity** as a measure to assess customer participation. In particular, we want to test if the degree or the extent of customer participation (quantitatively speaking) impacts on the performance, putting aside, for the moment, behavioral and more qualitative items.

After a review of the most relevant variables to measure performance, we decided to choose **customer and provider satisfaction.**

As introduced before, we went through several variables, but, most of the time they were too context-specific or too complex to measure in practice.

Satisfaction is easily assessable, it clearly delivers relevant information about the performance and, finally and most importantly, could be used in the assessment of both the customer and the provider. Indeed, differently from other instruments, researchers could easily investigate both actors by using a common index, thus making the analysis even more accurate.

In particular, we underlined that satisfaction should include the following dimensions:

Disconfirmation paradigm (Griffin & Hauser, 1993)	Subjects should compare their level of expectations with the actual output.
Relational side (McAlexander et al., 2002)	Subjects should assess their satisfaction with the personal relationship they established with the counterpart.
Perceived value (McDougall & Levesque, 2000)	Subjects should assess the difference between the benefits and the costs arising from the co-created project.

Obviously, we must observe that the variables we identified constitute a significant approximation of the reality. Satisfaction, for example, is not exempt from distortions and could be highly subjective.

Now, do these two variables fit with the objectives established at the beginning?

- *Accessibility*: an example could help us. If the researcher develops an instrument to analyze the sample, namely a questionnaire, these variables somehow make the job easier. Indeed, only an assessment of satisfaction and of the intensity are required (apart from other personal data). The questionnaire would take a few minutes, thus encouraging subjects to fill it.
- *Possibility to generalize*: these variables do not refer to a particular context, sector or geographical region. This is why they could be easily extended to a variety of samples (using the proper adaptations required by the circumstances).
- *Robustness*: for our purposes, satisfaction is, among the indexes we went through, the most significant to measure performance. Moreover, as postulated before, it could be used both for the customer and for the provider.

Hopefully, these instruments could help further research to investigate participatory relationships and actually investigate the potential correlation between the intensity of customer involvement and the performance of co-creation.

These variables represent indeed an approximation of the reality, but they have the great advantage to be widely known and easily measureable, if compared with others.

This research wanted to provide the tools solely to test the mere correlation between the aforementioned variables. Afterwards, when this relationship has been tested, further research could better focus on the identification of co-destruction's and co-creation's main causes and implications.

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