

Exploring Business Interaction in Service Networks

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Abstract

Interaction is becoming more and more a central concept in service research, both in business to consumer and in business to business. Scholars recognize interaction as the key process for transferring value between customers and suppliers, and also in the broader network in which they are embedded. However, notwithstanding the numerous attempts to define and describe interaction in service research, a clear modeling of what interaction is, especially in service networks, lacks. This paper is aimed to understand how interaction between actors occurs in service networks and which are the main implications deriving from it. The study integrates insights from the service-centered logic of marketing with the interaction model developed in the industrial network framework (Ford et al., 2008; Hakansson et al. 2009). Empirically, it analyzes in depth the service network of Accor Services, a leading global company expert in delivering end-to-end solutions for rewards, compensations, incentives and loyalty programs to employers and citizens; many interviews have been carried out with the main actors of the network. Results of our study shows on one side that a further understanding of interaction processes in service networks can be obtained by applying the interaction model to these contexts; on the other side this model can be better characterized when looking at service network contexts. In doing this, our study both contributes to the debate on service networks and develops the idea of interaction as in the industrial network approach.

Keywords: *service networks, interaction, business networks, time, space.*

1. Introduction

In the last decade we have witnessed at the emergence and development of a wide move, both in literature and in business practice, aimed at highlighting the importance of a service orientation in running the business, especially in marketing (e. g. Normann, 2001; Vargo & Lusch, 2004; Lusch & Vargo, 2006; Gronroos, 2006; Gummesson, 2007; Edvardsson et al. 2008; Maglio & Spohrer, 2008). The ongoing debate about this issue reflects the shared need to overcome the traditional and long-standing duality between goods and services (Araujo & Spring, 2006), when interpreting the transition process from product suppliers to service providers that firms are facing (Jacob & Ulaga, 2008). This phenomenon represents an evolutionary change, which is increasingly affecting all businesses (Edvardsson et al., 2008; Cova and Salle, 2008). In particular, the transition from a product-centric to a service-centric approach, while still in its early stages, is increasing in business markets (Araujo and Spring, 2006); as Jacob and Ulaga (2008: p.248) state “business markets more and more take over the character of service markets” and this evolution raises new thought-provoking research issues.

The managerial challenge related to this progressive transformation is affecting a vast majority of firms and requires rethinking the organizational principles, structures and processes as well as the business models (Oliva & Kallenberg, 2003). By considering a service as a perspective and not merely as an activity (Edvardsson et al., 2005), the emerging service-centered logic suggests an integrative approach aimed at addressing how to manage the transition (Vargo & Lusch, 2004; Gronroos, 2006); with this purpose a particular attention is devoted to the interactive and networked nature of value creation (Gummesson, 2006; Vargo & Lusch, 2008a; Cova & Salle, 2008) and to the pivotal role of interactions in reciprocal value-creating processes (Gronroos, 2007; Gronroos & Ravald, 2009).

However, notwithstanding the highlighted importance of interaction according to this new business logic, we notice that less is known about how interaction can be modeled in this framework, both at relationship and at network level. The majority of the contributions in the literature on service-centered logic provide descriptions of their idea of interaction and, at least, they systematize it into some theoretical propositions or thesis (Vargo & Lusch, 2008a; Gronroos & Ravald, 2009). The consequence is that the very nature of interaction and its implications in service

networks remains rather vague; a gap in the literature seems to emerge. This paper is aimed at filling this gap by understanding how interaction between actors occurs in service networks and which are the main managerial implications deriving from it.

As a consequence of the development and diffusion of the service-centered logic, the concept of “service network” is evolving and represents an emergent issue on which further research is required. In our study we define service network as the complex patterns of interactions between entities mainly characterized by exchanges of intangible resources and which are aimed at creating reciprocal value for all the actors that belong to the network.

To answer our research question we draw insights from the idea of interaction developed in the industrial network field of research. In this area, in fact, it is already well established that interaction has a fundamental role in explaining the development of business relationships and networks (Ford et al., 2003, 2008; Lindgreen & Wynstra 2005, Baraldi & Strömsten, 2005). Therefore it becomes increasingly unavoidable for companies to face the problem of how to establish and manage relationships and interaction processes among the actors, how to use and combine resources and how to perform activities in order to increase the value created by the network especially in service networks (Ford et al., 2009). In this study we will in particular apply the interaction model by Hakansson et al. (2009). This model has been selected, as, at the moment, it is the most recent and comprehensive attempt to characterize interaction in business networks. The authors combine the time and space dimensions of interaction for each of the three layers of the ARA model: activity patterns, actor webs and resource constellations. In this way they identify six features through which interaction may be depicted: specialization, interdependency, path, heterogeneity, co-evolution and jointness.

The model is applied to a longitudinal case study - aimed at investigating the time and space dimensions - of Accor Services, a leading global company expert in delivering end-to-end solutions for rewards, compensations, incentives and loyalty programs for employers and citizens. Interaction processes with a multitude of business actors has been playing a critical role to support the process of constant innovation in its value proposition, through the evolution of its service network. In depth interviews were carried out with actors both inside and outside the firm (with its main business partners).

Results of our study shows that combining recent advancements in the service-centered logic of marketing with the interaction model developed in the industrial network framework, could provide a further understanding of interaction processes in service networks. In doing this, our study both contributes to literature on service networks and on business interaction according to the industrial network approach, especially considering that the interaction model has been mainly derived from observations of relationships between manufacturing firms. No one has still reflected on how this model should change when a service logic is applied. Important managerial implications also arise from the study.

The paper is organized as follows: in Section 2 we discuss the recent developments towards a service-centered logic in marketing and management and its implication on service networks; in Section 3 we introduce the concept of interaction as developed in the IMP's literature; Section 4 integrates the two streams and proposes an analytical framework for reading interaction processes in service networks; Section 5 contains the methodology and Section 6 the case study. Discussion of findings, conclusions and managerial implications follow in Section 7 and 8, respectively.

2. The service-centered logic and the role of interaction in service networks

The conceptual foundations of service have been the subject of an increasing debate in the last decade (Wirtz & Ehret, 2009); its more interesting deployment has consisted in applying different scholarly thinking to old themes with synergistic results (Edvardsson et al., 2005).

The service concept, in fact, has constantly evolved over time, as scholars have drawn attention to the different elements of its multifaceted nature. One of the most widespread and common interpretations of service highlights the process nature of services (see for example Lovelock, 1991; Gronroos, 2001; Zeithaml & Bitner, 2003). The interconnectness of production-delivery activities embody this process nature and, in turn, leads to involve different actors, including customers. In this regard Ramirez (1999) emphasizes that value creation processes in services are not unidirectional, but co-invented and combined through interactions among several and different actors.

The service-centered logic has broadened the boundaries of the service concept with a more inclusive definition of service (Gronroos, 2006; Vargo & Lusch, 2004; 2008a),

considered as “the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself” (Vargo & Lusch, 2004:2). Thus, the focus has gradually shifted from services to “service”, viewed as a business process, based on the application of shared resources, of doing something for and with another party (Lusch & Vargo, 2006).

Grounded in this conceptualization, service-centered logic can be considered a general mindset, which may provide the basis for a revised theory of the firm (Vargo & Lusch, 2008a). The adoption of this perspective, by overcoming the traditional B2C and B2B dichotomy (Vargo & Lusch, 2010), with mutual advantage to the actors involved, has several implications. Firstly, we observe that service conceptualization has evolved towards a perspective on value creation rather than a category of market offerings (Edvardsson et al. 2005), with an emphasis on the value-in-use as defined and experienced by the actors involved in the process (in particular the customers) (Gronroos & Ravald, 2009). Then, the service-centered logic has contributed, among others, to shift the focus from the creation of goods to the process of serving, from the dominance of tangibles to the primacy of intangibles in the offering systems, from the consumption and depletion of static operand resources (typically physical) to the creation and use of dynamic operant resources (typically human, organizational, informational and relational) and also, more in general, from transactional to relational exchange (Lusch et al. 2006).

As we will highlight in the next sections, this ongoing transition, has several effects, especially on the interaction idea that, by adopting this view, acquires a renovated role and meaning in mutual value-creating processes. Since the early 1980s service research has emphasized the interaction concept as a key construct (e. g. Gronroos, 1982; Solomon et al. 1985; Eiglier & Langeard, 1987) in order to shed light on the mechanisms of production and consumption.

More recently the interaction process, analyzed in terms of acts, episodes and relationships (Liljander & Strandvik, 1995), has further developed the understanding of the service process by identifying four levels of aggregation: action (or moment of truth according to Normann (1984), episode, sequence and relationship (Holmlund, 2004).

The emerging service-centered logic has rejuvenated the interaction concept by posing it at the very core of the value generating process. According to Grönroos (2008:300) “service is to support customers' practices and business outcomes with a

set of resources and interactive processes”. In its recent article on IMM (2010), he reinforces the importance of interaction through the definition of two basic propositions: “Value co-creation requires that customer–supplier interactions occur (5)” and “The quality of interactions (i.e. how well the supplier can make use of them to influence the customer's value creation) has an impact on how well the supplier can make use of value co-creation opportunities (6)”. Vargo and Lusch (2008a), on the other hand, highlight the interactive and networked nature of value creation that is somehow implicit in their revisited foundational premises. On the same line is the contribution of the Service Science, which has been developed in the last few years to support the service-centered logic in an operational perspective. Service Science, in fact, indicates the *service system* as the principal unit of analysis, defined as a dynamic value co-creation configuration of different kinds of resources (including people, organizations, shared information and technologies) that interacts with other service systems to create mutual value (Spohrer et al. 2007; 2008).

But interaction is not considered in isolation. According to service-centered logic, interactions occur in networks of actors (Vargo & Lusch, 2010); the value creating process is not limited to the dyadic interaction but takes place through interaction in complex networks (Ballantyne & Varey, 2008. Cova & Salle, 2008; Gummesson, 2008). A recent definition emphasizes the link between value, interaction and network as following: “A value network is a spontaneously sensing and responding spatial and temporal structure of largely loosely coupled value proposing social and economic actors interacting through institutions and technology, to: (1) co-produce service offerings, (2) exchange service offerings, and (3) co-create value” (Lusch, Vargo & Tanniru, 2010).

Notwithstanding the attention raised by the service-centered logic about the concept of interaction in (service) network, we still need further clarification and refinement of its conceptual meaning (Lusch & Vargo, 2006; Gronroos, 2010) and the managerial implications deriving from it (Gummesson, Lusch & Vargo, 2010).

3. Modeling business interaction: the IMP approach

There is a common agreement among scholars on the crucial role of business interaction for the creation (initiation) and development of business relationships and networks: “Interaction is an important economic process through which all of the aspects of business, including physical, financial and human resources, take their form, are changed and are transformed” (Håkansson et al., 2009 p. 33).

The development of the interaction approach (Håkansson, 1982) was an attempt to highlight the central function of interaction processes in the relationships between buyers and sellers. Over time it has evolved into the network approach (Håkansson & Snehota, 1995), generating a more holistic view of business-to-business exchanges (Henneberg et al., 2006); its theoretical foundation is that no one interaction can be understood without reference to a relationship, and no one relationship without reference to the wider network (Håkansson & Ford, 2002).

In the network perspective interaction has been characterized in terms of how activities are linked together, how resources are utilized, and how strong the bonds between the actors are, i.e. the so-called ARA model (Håkansson & Snehota 1995). These three layers of buyer-seller relationships are interdependent as a result of the complex patterns of interactions that occur in networks: “activity links may limit or facilitate resource adaptations; resource ties may limit or favor the possibility of activity co-ordination and actor bonds may open up the possibility of developing activity links and resource ties” (Håkansson et al., 2009 p. 34). Moving from a relationship level to a network, the three layers assume the form of activity patterns, actor webs and resource constellations.

Understanding interaction in business markets is relevant because interaction has direct and indirect effects on the benefits and costs generated in business relationships; it represents the very process in which the value is produced (Corsaro & Snehota, 2010). This process does not involve only the customer and the supplier, but several other interfaces in the network simultaneously (Baraldi & Strömsten, 2005).

Interaction is a phenomenon that has attracted -and still continues to attract- the interest of many marketing scholars. In the business to business literature, in particular, we can find a multitude of studies that have treated the idea of business interaction. Among them, for instance, Holmlund (2004) tries to characterize different

types of relationship interactions; Schurr et al. (2008) relates patterns of interaction to change processes; Corsaro & Snehota (2010) rethink relationship value in “interactional” contexts; Medlin develop a time perspective of interaction (Medlin, 2004); Ramani & Kumar (2008) introduce the “interaction orientation” idea; Johnsen and Ford (2006) the “interaction capability” concept; Håkansson & Waluszewski (2002) give rise to the resource interaction approach, and many others.

However, we notice that despite the increasing amount of attention on to the interaction concept, its modeling still remains a vague issue. Attempts to operationalize business interaction are quite rare to find.

There are many reasons for it to happen. First of all, interaction is difficult to characterize; it is time and space specific, it occurs at three different levels of analysis (firms, relationships and networks) and it involves a multiplicity of actors; furthermore what happens in business relationships between actors is continuously changing and affected by the other relationships, which are in turn evolving. This interconnectedness makes the consequences arising from business interaction unpredictable and difficult to measure. The complexity of interaction affects several aspects of the companies in different ways (Håkansson et al., 2009) and, more in general, it can be traced back to the two critical dimensions of business interaction, time and space. Interaction leads infact to a continuous process of adaptation between actors over time and space (Waluszewski, Hadjikhani & Baraldi, 2009). In particular “Time acts as an environment that constrains, shapes, and patterns business interaction and the deployment of resources and activities in space, for value is created by interaction according to a time/spatial arrangement in which time encloses space” (Medlin, 2004: p. 187).

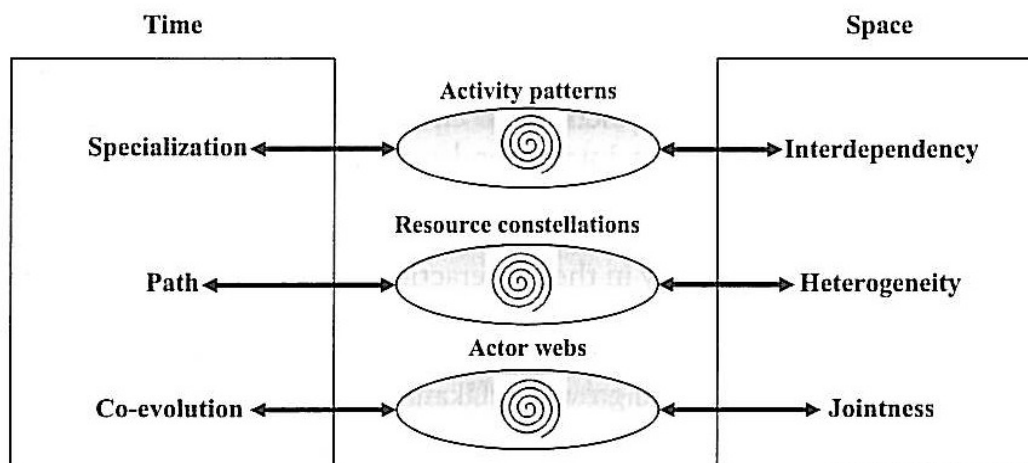
However, when considering the time dimension of interaction, many unsolved issues emerge. Recently Håkansson et al., 2009 (p. 38) summarized these issues affirming “the multiplicity of simultaneous interactions both between and outside of any dyad, makes it effectively impossible to construct distinct causal links between particular episodes and outcomes in interaction”, and also “it is difficult for the actor to anticipate and cope with the chain of events in interaction”. We can add the criticality of way in which managers perceive time (Medlin, 2008), interpret episodes that have occurred over time (Shurr et al. 2008) and relate to past, present and future aspects of time. Following Johanson & Mattsson (1987), business interaction is composed by

two elements: the dynamics of exchange, focused on a present time perspective, and adaptation, where the object of interaction is instead in the future.

As for the space dimension, again Håkansson et al. (2009: 40) have recognized that the main problems with business interaction in space primarily arise because “the evolution of an interaction process emerges from a combination of intentions of the counterparts in the process and the position they currently have in the space so that the development is influenced by the direction and content of the connected interaction processes”; but also “interaction may lead a particular company to systematically adapt towards a specific counterpart...”. The recent debate on that includes how actors’ perceptions of the business surroundings may affect managerial actions (Henneberg et al. , 2006; Mouzas et al., 2008).

All at once, the complexity of the time and space dimensions of business interaction has been summarized in the model of business interaction by Håkansson et al. (2009), firstly proposed by Ford et al. (2008). The authors represent interaction as a multi-dimensional process involving the three layers of the ARA model -activities, actors and resources- each of them combining a particular aspect of the space dimension with the time dimension.

Figure 1. A model of business interaction



Source: Hakansson et al. (2009)

The authors identify six dimensions through which interaction may be depicted. A short description of each dimension follows:

Activity Patterns

- *Specialization in time*. “The activity pattern involving several actors are likely to become increasingly specialized as individual actors build specialization into their activities relative to others as their interactions develop” (Håkansson et al. 2009, p. 43). Specialization occurs through adjustments and adaptations by each actor in its activity, in order to find solutions that are acceptable for different parties and for their own costs and revenue criteria;
- *Interdependency in space*. It means how actors are connected with each other; these interconnections both empower and constrain the ways in which actors run their business (Håkansson and Ford, 2002). “Even if some of these activities may appear to be independent, they are always connected to others in a variety of ways” (Håkansson et al. 2009, p. 42).

Resource constellation

- *Path in time*. It emerges when resources are used in combination with others over time. They determine the development of each resource and the resource constellation.
- *Heterogeneity in space*. “The development of a single resource or a combination of resources; physical, human and financial into particular abilities or technologies often follow an identifiable path over time.” (Håkansson et al. 2009, p. 43). It means that the value of resources is not homogeneous and it can be increased according to how resources are combined with other resources; “Interaction enables resource heterogeneity to be exploited as a means of value creation across company boundaries” (Håkansson et al. 2009, p. 43).

Actor webs

- *Co-evolution in time*. The evolution of each actor is not an individual process but is the result of an interactive process with others, which not necessarily means that actors become more closer or more similar. “Co-evolution is a multidimensional process that takes place within two or more actors in parallel as each actor seeks to relate its problems, resources and activities to those of the others” (Håkansson et al. 2009, p. 45).
- *Jointness in space*. It refers to the way a relationship is characterized in relation to all others and emphasizes the reduced importance of a single actor’s own intentions of determining the direction of its development. “Jointness can be manifested in various

organizational forms such as when actors take part in joint technological development, joint logistics or the development of joint sales or procurement” (Håkansson et al. 2009, p. 44).

Recent developments in business marketing have heightened the need for a better understanding of interaction processes in business networks (Medlin & Törnroos, 2006; Medlin, 2004). It follows that even if this model is one of the most comprehensive attempts to characterize business interaction, we will try to understand how it can be enriched and further specified in the context of service networks.

4. Interaction in service networks: a fresh perspective

In the first section we have highlighted that the concept of business interaction in service networks opens up new opportunities and needs to be further explored. Moreover, the transition from a product-centric to a service-centric approach requires effective and suited theoretical frameworks as well as interpretative models.

According to the emerging service-centered logic, in fact, services (and service networks) are increasingly associated with the interactive and networked nature of value creation (Ballantyne & Varey, 2008; Vargo & Lusch, 2008a) while interaction represents the core element in the value creation process (Wirtz & Ehret, 2009; Ford et al., 2009). We think that the idea of interaction developed in the IMP stream of research and presented in the previous section could be particularly useful to the purpose to better understand how interaction in service networks can be modeled.

Dyadic interactions are connected with and are part of a wider network of interdependencies and can be depicted in terms of a continuous set of actions, reactions and re-reactions thus contributing to the consideration of the network as a reciprocal problem-coping process (Ford & Mouzas, 2010). This process assumes particular significance when interpreted in a service perspective since its peculiarities shed further light on the challenges in managing interaction in space and time.

More in detail, for the three layers (actors, activities and resources) of the model of business interaction (Håkansson et al. 2009), we will emphasize some cues as well as criticalities that have to be taken into consideration when considering dynamics in service networks.

Resource collections (within companies) and constellation (across company boundaries) in the service-centered logic assume a particular significance: the focus is on the intangible, dynamic resources mainly related to human, organizational, informational and relational knowledge and skills (Madhavaram & Hunt, 2008) that are at the heart of competitive advantage and performance (Vargo & Lusch, 2004; Lusch & Vargo, 2006). Attention shifts from static resources, like plant and equipment and their combination, to integration of the employees' knowledge and competences characterizing not only the enterprise, but also customers and other value-creation partners in the service network (Vargo & Lusch, 2008b).

Knowledge and skills, passive and without value in themselves, in interaction become operant (active) resources.

In particular, if we consider knowledge as a key resource, we may notice that interaction is the process in which it is developed, recombined and, even more relevant, re-used in potentially multiple contexts without sustaining further relevant investments for its creation. Differently from other resources, in fact, knowledge is not a resource "consumed" or destroyed when it is used but it increases and develops when it is exchanged in interaction.

According to the Service Science there are four main general types of resources: people, technology, organizations (in terms of value propositions connecting internal and external service systems) and shared information (Spohrer et al., 2007). Operant resources, or as to better say resources that act on other resources in interaction, may be considered along a hierarchy which determines the potential for sustainable competitive advantage (Madhavaram & Hunt, 2008): *basic* operant resources constitutes the building blocks of the exchange in interaction; *composite* operant resources are the combination of two or more basic resources as outputs of a low level of interactivity (in this case the resource combined is a sort of "sum" of the initial resources with a limited level of integration); *interconnected* operant resources are resources that, as positive outcome of an effective combination in interaction, reinforce each other and improve the potentiality to increase their value.

At the light of these considerations, we point up the implications of applying to a service network context the six basic propositions that IMP scholars developed about resources (Hakansson et al. 2009):

1. *The value of a resource is dependent on connections to other resources*: we observe that there are several and potentially thought provoking implications that arise when we take into consideration the different kinds and levels of operant resources in interaction processes within a service network.
2. *A resource changes and develops characteristics over time*: it becomes possible to interpret the path of resources over time in terms of different combinations of basic resources aimed at searching to combine stability and change in resources. According to the service-centered logic, we may underline how actors focus on and handle operant resources in combination to take advantage of the investments they have done over time, especially in knowledge and skills, by considering the different types of resources -people, technology, organizations, shared information-, and the different hierarchical levels they can reach.
3. *Every resource is embedded in a multidimensional context*: if we consider resources in space, their prevailing intangible nature determines the quality and intensity of their heterogeneity. Moreover, even if the opportunities that these types of resources generate are multiplied, at the same time it is more difficult to know how they interact between actors and how actors to reduce the (mental) distance between them.
4. *All changes of a resource create tension*: in order to limit the negative effects and reinforce the positive effects of operant resources interaction, different adaptations in resources and in their combination are required; these adaptations are relevant as they also support actors' learning processes.
5. *Interaction intensity influences the effects of a change in resources*: the hierarchy of operant resources is a powerful approach to evaluate the degree of intensity that characterizes the path of resources in time. The level of intensity is partly managed by the actors and partly it is the outcome of the interaction process in itself.
6. *The broadness of interaction influences the number of resources affected by a resource change*: in a service network the broadness of interaction may rapidly increase, owing to the intangible nature of the operant resources. Heterogeneity is also related to the potentially endless way in which intangible resources, particularly knowledge, are combined and re-used in new combinations.

Activities play a fundamental role in service networks. According to Gronroos (2000, p. 48) services are “processes consisting of a series of activities where a number of

different types of resources are used in direct interaction with a customer, so that a solution is found to a customer's problem".

The service-centered logic highlights the importance of activities aimed at supporting the practice matching between the actors involved in interaction: actors simultaneously proceed as co-producers and customers of the service (van der Walk, 2008) so as to practice corresponding processes able to support a joint value generation (Gronroos, 2010). The efforts towards this synchronization process are at the core of the service activities and can be particularly related to two of the IMP propositions about activities: "*The execution and outcome of an activity is dependent on other activities*" and "*Adjustments between activities improve their joint performance*" (Hakansson et al. 2009: 96).

Moreover, configuring activities and activity patterns becomes in service networks a critical issue due to the difficulty in separating the different activities composing a service-centered process. With respect to this, the challenge is to understand more in depth the true nature of the activities and their boundaries in a service network, as well as the different roles played by the actors in different interaction episodes in order to create value.

Looking at interdependency in space, it is strictly related to the practice of matching activities that are characterized by a substantive inseparability in their essence. More specifically dyadic interdependence "that occurs when two activities are adjusted in relation to each other" (Hakansson et al., 2009: 105) and joint interdependence, coming about "when two activities become dependent because both are related to a third activity", (Hakansson et al., 2009: 105) seem to be two specific traits of linking activities in service networks.

In order to categorize the different kinds of possible activities, Service Science defines three main activities in service interaction: (1) proposing value co-creation interaction to another service system (proposal), (2) agreeing to a proposal (agreement), and (3) realizing the proposal (realization) (Maglio et al., 2009). Specialization in time may occur with respect to these types of activities and, in service networks, it is mainly aimed to allow their replication.

In their foundational proposition 9, Vargo & Lusch (2008a: 8) specify that "All social and economic *actors* are resource integrators". Moreover, an actor does not exist in

isolation but only when is acknowledged by some others in interaction (Hakansson et al., 2009).

To discuss the actor layer, we particular refer to the concept of service system. The variety of actors that can be observed in the interactive business landscape is in fact recognizable in the definition of service systems, assimilated to actors in service networks and defined by the Service Science as value-co-creation configurations of people, technology, value propositions connecting internal and external service systems, and shared information (Spohrer et al. 2007). Therefore, service systems are identifiable with potentially infinite entities that not always are organizations: the smallest service system is the individual (Maglio & Spohrer, 2008), but however they can also include corporations, foundations, nonprofits, departments in an organization, cities, nations, and even families. A discriminating condition is that service systems interact to co-create value. Therefore value co-creation interactions between service systems are also termed service interactions (Spohrer et al. 2008).

In service networks, service interactions call attention to collaboration and adaptation in value co-creation, thus contributing to define a balanced and interdependent framework for systems of reciprocal service provision.

These systems survive, adapt, and evolve in space ad time through exchange and use of resources – particularly knowledge and skills – in connection with other systems (Vargo, Maglio, Akaka, 2008). Jointness, as a measure of the spatial extension of a service system across the network (Hakansson et al, 2009), can be particularly referred to the closeness of the actors in terms of knowledge, languages and cultures.

Moreover every service system is both a provider and client of service that is connected by value propositions in value networks or value-creating systems (Normann, 2001), and where the bonds between service systems are the results of interactions in time. The continuous change and development of actors, necessary to continue exercising their role, is the result of the involvement of other service systems and interactions with them. Co-evolution, resulting from the past, the future and the connections between past and future (Hakansson et al., 2009), is an unavoidable but partly manageable process that involves the identity of each service system. In particular, co-evolution occurs in interaction with only a limited number of selected service systems and is based on the level of trust induced by the actors' behavior, especially when, as in service networks, the resources exchanged are mainly intangibles.

5. Methodology

Our empirical study refers to the global leader in the meal vouchers service, Accor Services. Accor Services is a leading global company, expert in delivering end-to-end solutions for rewards, compensations, incentives, assistance and loyalty programs for employers and citizens.

Through a longitudinal study of Accor Services, we want to focus how actors, activities and resources evolved through the years and to identify the main implications in terms of business interaction features according to a service-centered logic.

In our perspective, Accor Services case represents a good setting of analysis to observe the main specificities of interactions and its implications in a service context: over the last 40 years Accor Service network evolved, exploiting new potentialities arising from different combinations of resources and activities performed by its actors.

As our objective was to better understand a phenomenon (Dubois and Gadde, 2002; Dubois and Arujo, 2004); we utilized a case study approach. In order to have a many-sided view of changes, in depth interviews have been carried out both inside the firm and also with the main firms that have relationships with Accor Services. Over a period of seven years, we collected interviews from the key informants inside the company (the General Manager, the Marketing Director, and the Sales Director) (Eisenhardt, 1989; Yin, 2003). We also gathered interviews from a selected group of Accor customers and service providers. These primary data were then combined with secondary data gathered through the firms' website, reports, and other internal documents.

To analyze the case, we adopted the ARA model (Ford, 2002; Gadde, 2004), that helped us to explore the evolution of interactions among actors, stressing out the interdependencies among changes in actor bonds, activity links, and resource ties.

In order to draw main preliminary findings, in our paper we will in particular consider the evolution of the formula (and the consequent implication at a network level) of the Accor Italian subsidiary.

Our aim is to investigate the evolution of interactions within its network, according to the main changes affecting the Group development both at an international level and, more specifically, in the Italian context. We will also report the launch of some services on the Italian market, as emblematic examples of the output emerging from the new interactions developed within the service network.

6. The Accor Services Case

Accor Services started its business in the 60's as a provider of flexible solutions for out of home meals. Based on a concept elaborated in UK some years earlier, its first so called "Ticket Restaurant" was launched in France in 1962, and quickly widespread across Europe and the rest of the World, becoming the most common meal voucher used by companies to integrate the employees' salary: today more than 500,000 companies offer to 33 million final users across 40 countries the Ticket Restaurant and the other Accor vouchers, that can be spent in over 1,2 million bars, restaurants and shops. Accor Services entered the Italian market in 1976, where today over 2,5 million employees use the Accor vouchers.

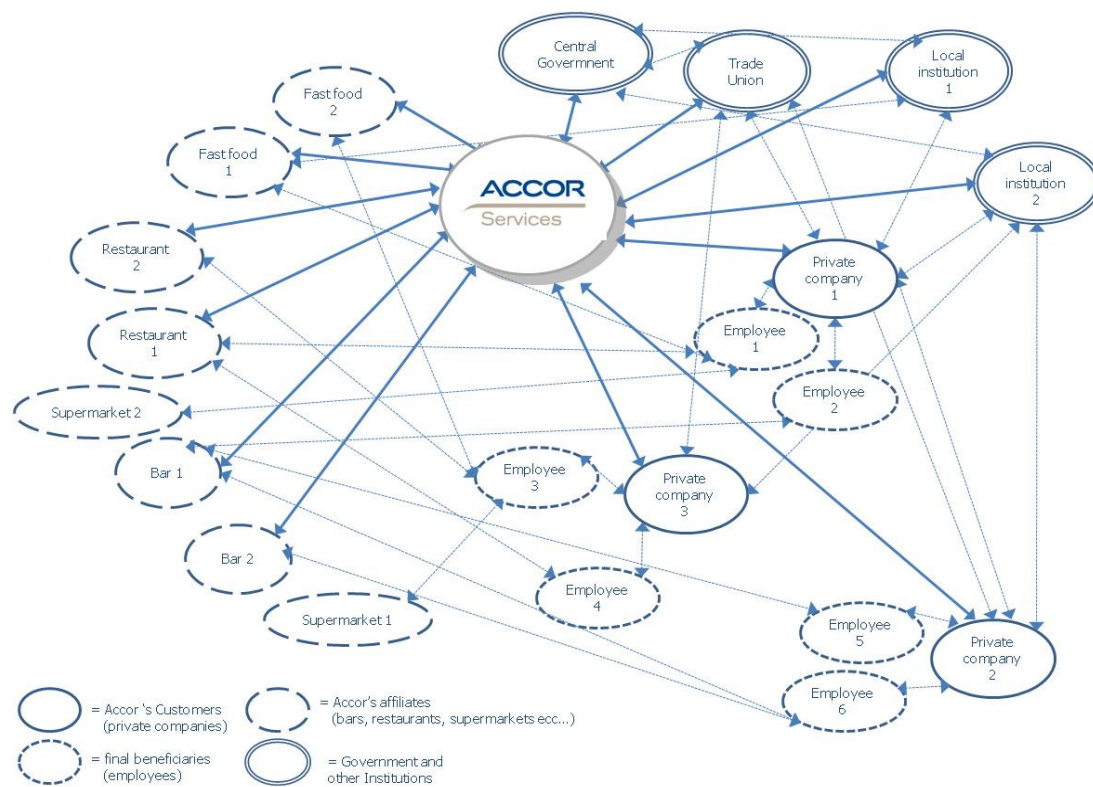
The "Ticket Restaurant" is a prepaid voucher, entitling the recipient to buy all or part of his meal at particular restaurants and bars. Accor issues tickets (pieces of paper or, more recently, electronic cards), and eventually sold them to companies in exchange of a fee: companies have chance to determine the value of their vouchers. These tickets are afterwards distributed by employers to their employees, usually when a canteen within the company is not provided. The ticket issuer (in this case Accor) selects and affiliates to its network restaurants and bars operating in the geographical market it wants to serve, in order to offer to holders the maximum variety and quality of meal services.

The mechanism is quite advantageous for all the actors involved in the Accor network. By using a Ticket Restaurant, Accor customers can enhance employee-employer relationship and reduce infrastructure expenses: companies can partially deduce the voucher from taxes and offer extra-value to their human resources. For employees, Ticket Restaurant acts as a social benefit, offering a higher purchasing power and freedom of choosing meals among the offering of various providers belonging to a selected network. Through its formula, Accor facilitates also the

relationships between companies and catering providers: on one side, it guarantees to companies a wider range of suppliers without directly being involved in the process of selection; on the other side, affiliate providers can reach more companies without investing in one to one relationships with each of them.

Figure 2 depicts the main typologies of actors involved in the initial Accor Services network, and referred to the first service offering launched by Accor, the Ticket Restaurant. We can note that, at that moment, the interactions were mostly dyadic. Accor made easier the relationships among actors by directly governing complex activities, such as the issuing and distribution of vouchers (on the customers' side) and the partners selection and the refund procedures (on the affiliate side).

Figure 2 . Accor's network and main interactions for the Ticket Restaurant service



Source: Adaptation from internal data

In this first phase Accor customers are only large and medium private companies, in charge of distributing the vouchers to employees that could eventually interact with catering providers to buy their meals. Accor had also to manage key interactions with the central government, the local public administration and the trade unions, that

could influence the laws about the tax deduction of vouchers (in terms of amount and contents), with a direct impact on the Accor service effectiveness.

The Ticket Restaurant mechanism respected and emphasized the specialization of each actor involved in the network, while developing a process of *coordinated and interdependent activities* among them.

In the 80's, the increasing competition in this business and the “comodisation” of the business formula forced Accor Services to rethink the model of the Ticket Restaurant and to enlarge its possible uses. Changes occurred in companies' strategies and in the final market needs also played a crucial role in this process of evolution. On one side, companies aimed not only to subsidize part of the cost of their employees' meals, but they tried also to assume a social responsibility approach to heterogeneous kind of actors they relate to, such as human resources, channel partners, and customers.

On the other side, employees started looking for an integrated offer that can add new benefits to compensation, more in line with their lifestyle. In this sense, Accor was asked to *co-evolve* with its customers, playing a new role as a partner for “all around rewarding policies”; this affected dramatically the amount and the intensity of the interactions within the Accor's network.

In Italy, following and readapting the international evolution of the Group, Accor Services started developing a wider array of sophisticated vouchers, that today are organized around three families of products and services, enabling private companies to manage effectively their resources and enhancing policies both with employees, business partners and customers:

- *Employees benefits*: services varying from the simplest meal voucher to the more complex “bien-etre a la carte” and the Italian “People One”, that offers to employees, through the help of a dedicated Accor consultant, a wide range of services (such as finding a babysitter or home helper, vehicle repairs, administrative procedures, etc.) without moving from the workplace.
- *Rewards and motivation*: solutions, such as the innovative Ticket Compliments, that help companies to motivate their employees', partners', and customers' loyalty.
- *Expense management*, solutions to facilitate the control of employee business expenses, implementing effective cost control and optimizing reporting processes. Examples are the Ticket Car (usable for fuel and maintenance of company vehicles), the Italian Ticket Trasporto (to finance the employees' use

of public means of transportation) or the Ticket Clean Way (a smart card that gives beneficiaries a "cleaning credit" valid in a vast network of affiliated dry cleaners).

***Ticket Compliments** is a multi-store gift voucher (or card) issued by Accor, that provides an ideal solution for customers', employees', or business associates' rewards, loyalty programs and promotional campaigns. Beneficiaries can use the voucher/card to shop in a network of over 9,000 affiliated retailers (off line and on line), that ranges from clothing stores to travel agencies, and gyms.*

Through Ticket Compliments, Accor offers the chance to customise individual gifting and corporate gifting by creating a network of services providers that suit companies specific needs. Accor manages the entire logistical and administrative process, discharging its customers from cost of distribution, storage and packing connected to gifting.

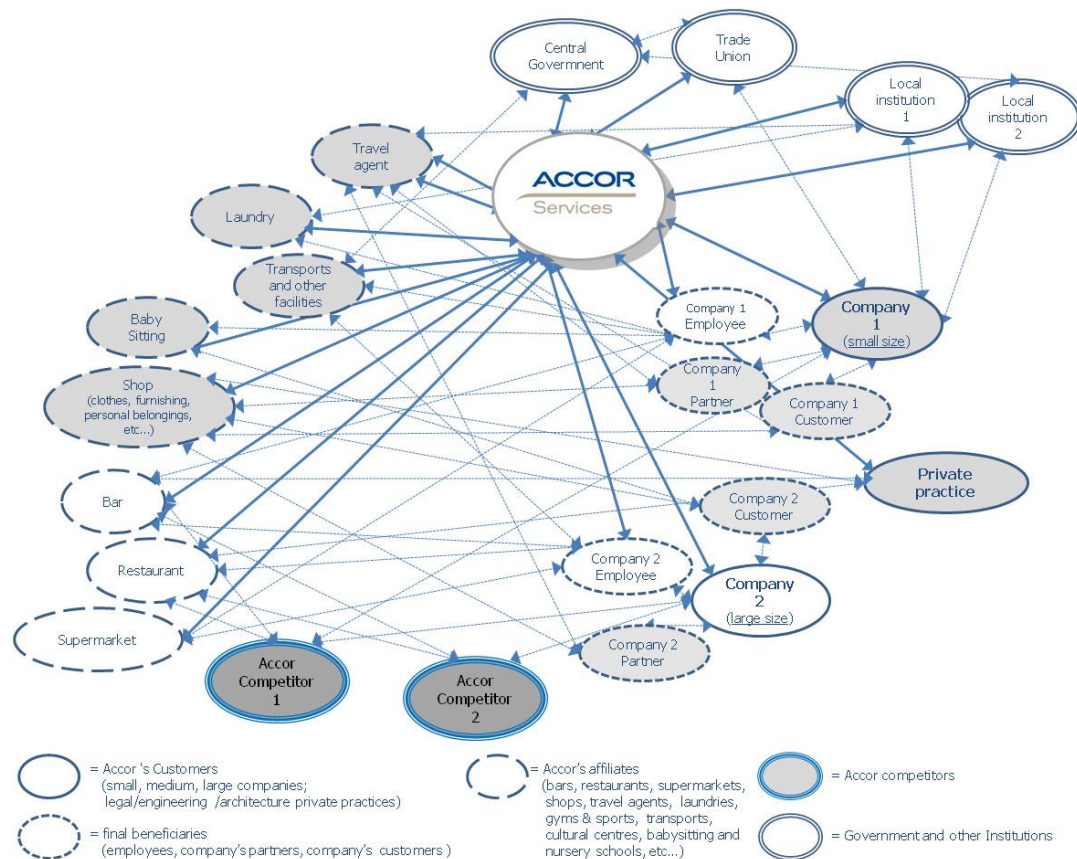
The company's ability to manage interactions with heterogeneous counterparts became in this phase of evolution a critical asset for competitiveness. The need to differentiate and innovate, in accordance with the evolution of the final market, forced Accor to adopt a new perspective in building up and enlarging its network of affiliates: from "traditional" restaurants and bars, considered for the Ticket Restaurant, to new service providers, such as shops, department store, travel agencies, laundries, babysitters, etc.

Also the typologies of customers served evolved and, with them, new interactions occur: by enlarging the meanings and the services offered through the voucher, Accor opened up not only to medium and large sized companies but also to small companies and professionals, assuming an actual role of "consultant" for its customers for the rewarding strategies targeted to human resources and other stakeholders. As a matter of fact, the launch of new services required Accor also to develop new resources, such as specific knowledge about different typologies of beneficiaries: employees were not anymore the only beneficiaries involved in the new Accor network. Companies' partners and customers became new targets to refer to, while designing services and vouchers. By providing more sophisticated solutions, relevant interactions were performed not only with the intermediate customers but also with the final market (beneficiaries). In the previous situation (only Ticket Restaurant), the relationship with the final market was completely mediated by Accor customers and affiliates;

differently new vouchers, such as the work-life balance package called People One, need direct interactions between Accor (that offers access to several service providers), the customers (that is to say the companies that prepay for an internal Accor consultant for their employees) and the beneficiary (that personally buys each service). This transform the dyadic interactions seen in figure 2 in a more complex system of interactions, as represented in figure 3.

By enlarging the meanings and the contents of its services, in order to face the increasing competition, Accor needed to interact with a more complex network of actors, accessing new intangible resources and developing interconnected activities.

Figure 3. New typologies of Accor services: emerging interactions among Accor and other heterogeneous service providers, customers and beneficiaries.



Source: Adaptation from internal data

Comments:

- 1) In grey the new typologies of actors entering the Accor network.
- 2) The increasing number of actors involved causes a multiplication of Accor interactions and a subsequent enlargement of the activities and the resources mobilized.

At the beginning of the new millennium¹, Accor enlarged its business horizons from the private companies to the public sector, providing support to central and local governments in developing their welfare policies: different typologies of social vouchers (so called Ticket Service) were created to enable governments to allocate targeted assistance and funds to citizens in complete transparency. In various countries the social vouchers were used also in partnership with private companies to which tax relief was guaranteed.

A wide range of new services were launched on the market, from the simplest meal voucher to social vouchers to buy books for children at school or to find a home helper for the eldest. The French CAP (Chèque d'Accompagnement Personnalisé) was one of the first vouchers aimed at the poorest to make them buy specific kinds of products and services; the UK Childcare Voucher provided incentives to private companies to promote policies supporting employees in finding help to look after their children while at work (tax free vouchers). Thus, the social voucher has become a successful tool in all countries, meeting both social interest and economical growth: it facilitates the implementation of social policy provided by Public Institutions, that can enhance targeted policies and grant social subsidies with greater ease and better fund control. Moreover, beneficiaries take advantages of concrete helps in a vast network of shops, without feeling discriminated.

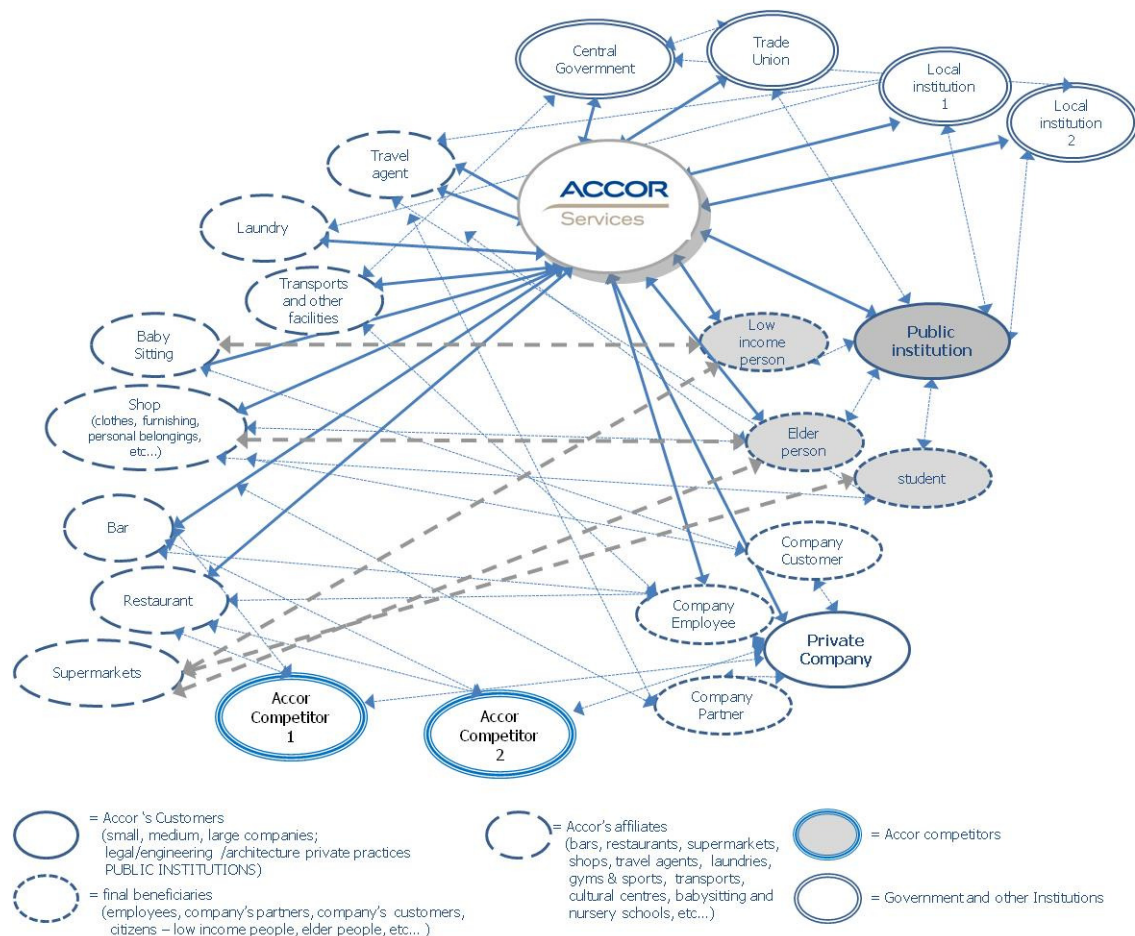
*Due to the present economic crisis, the “**Voucher Conciliazione**” was recently launched in partnership with the Italian local institution Regione Lombardia, to support those workers accessing redundancy fund, that need to look after small children or not-self sufficient relatives: this voucher can be spent for day nurseries, in-home elder care, baby sitting and specified basic necessities.*

Social Vouchers shed light on the crucial logic of the “tailor made services” In this sense, Accor lavished energies and resources on creating strong relationships with the central and the local governments and on getting in touch with the new set of needs they expressed. Each social voucher, such as the Voucher Conciliazione in Italy, came out from a process of interaction and continuous adaptation among actors, characterised by high levels of inseparability among actors, resources and activities:

¹ We refer to the Italian context: this process of evolution started some years before in other countries where Accor operates.

looking at the entire process from a citizen's point of view, boundaries among Accor, public institutions and service providers seem to fade away. Figure 4 illustrates the integration of public institutions (as Accor customers) and heterogeneous kind of citizens (as beneficiaries) within the network.

Figure 4. the launch of social vouchers: new customers and new final beneficiaries generating new interactions.



Source: Adaptation from internal data

Comments:

1) In grey the new typologies of actors entering the Accor network and the new interactions developed

Today the network looks like a system designed in a win-win logic, where Accor and the main actors interact to develop together value added activities. Accor supports private companies in gaining productivity and market competitiveness, by studying together new ways to simplify the common procedures and to design new services for the heterogeneous final markets. It supports public institutions in promoting economic policies, by monitoring social trends and needs and elaborating new effective services

for citizens. As far as the affiliates are concerned, Accor develops new projects to improve the quality of service providers and to increase their customer retention rates too. In order to increase final beneficiaries' purchasing power, well-being and motivation, they are more and more involved in the service designing and in its supplying.

7. Discussion

By analysing the Accor Services case, we observe that the interaction processes occurring among the company, its service providers, the customers and the final beneficiaries has specific implications in relation to a service network context and relevant impacts on the value generating process, as interpreted also by the service-centered logic (Vargo & Lusch, 2008a; Gronroos, 2010; Gummesson, Lusch & Vargo, 2010).

The interaction processes in this service network are primarily concerned with the management of the prevailing intangible resources, the exploitation of the opportunities related to their heterogeneity, the running of the interdependencies among actors and the search for flexibility in the activities developed while facing the challenges that the business environment poses. Moreover, the multiple interactions, over time and space, led to a modification of resources, activities and actors across organizational boundaries that can be interpreted in the light of the service network specificities.

What emerged from the case study is that all the three layers of the Interaction Model (Ford et al., 2008; Hakansson et al. 2009), considered in their dimensions of time and space, have specific implications for a service network, that need to be discussed more in depth.

Resource constellations

In a service context, such as in the Accor network, we can notice the prevailing of the intangible nature of resources combined. This intangibility has important consequences on interaction in service network (Lusch, Vargo & Tanniru, 2010) . In particular, the main categories of the resources highlighted by the Service Science (Spohrer et al. 2007) - people, technology, organizations and shared information -

assume a crucial role in exploiting the variability that characterises the network evolution.

Over time, Accor developed its set of mainly intangible resources: for instance in depth knowledge of beneficiaries' market(s); sophisticated logistics; financial competences; technological platforms to share information and economic flows with customers and affiliates. Since the beginning Accor invested massively to improve and develop new ICT systems and more effective procedures to manage the refund activities (for affiliates) and the administrative proceedings for tax deductions (supporting its customers). Huge efforts were also devoted to develop more and more sophisticated systems, that can monitor (through databases, call centers and crm) and facilitate (also with specialized sales force) the relationship with the affiliates and the customers. Through the years, in order to support the market evolution and co-generate new solutions for the evolving needs of both customers and final beneficiaries (Gronroos, 2010), Accor was also forced to develop new critical resources, at the beginning very far from its core business. These new resources came out from a process of continuous interaction with traditional and new actors involved in the network (Gummesson, 2007; Madhavaram & Hunt, 2008; Vargo & Lusch, 2008a). Knowledge, in particular, became a key resource in this service context (Vargo, 2009) and was developed and reshaped in multiple contexts: for instance, the specialized knowledge about the evolving strategies of rewarding and compensation for Human Resources was used, on the one side, to develop new services for the private companies' partners and customers and, on the other side, to approach in an innovative way the specific mechanisms of social policies adopted by public institutions. The resources utilized in the first Ticket Restaurant service and in particular the knowledge were recombined and integrated over time and space in new combinations, underlining the dynamic nature of the resources that are relevant in a service network (Lusch, Vargo & Tanniru, 2010), such as the Accor one.

This pinpoints two important aspects: the path of resources development coming out from interactions in service networks appears particularly unpredictable in time, offering the chance to exploit multifaceted business opportunities; the heterogeneity of critical resources adopted in a service context (mostly intangibles) makes difficult to understand how resources can interact, but it also increases the broadness of combinations in space (see table 1).

Table 1. Resource layer and its implications in service networks

What are the implications in service networks? (Time)	TIME	Layer	SPACE	What are the implications in service networks? (Space)
- Conscious unpredictability - Opportunity to explore new scenarios	Path	<i>RESOURCE CONSTELLATIONS</i>	Heterogeneity	- Open-endedness of possible combinations (because of the knowledge based nature of exchanges)

Source: Our elaboration on Hakansson et al. (2007; 2009)

As highlighted in section 4, unpredictability (in time) of the dynamics and the effects of interactions in service networks, while representing a risky dimension, may effectively support the value creation process when managed with the consciousness of the connected opportunities and threats. In this sense, Accor Services was able to provide end-to-end service solutions, shaped on the customers' needs, exploiting modular formats and readapting them in different phases of evolution. This is the case of the Ticket Compliments that exploits the technical mechanism of the meal vouchers, enlarging the meanings and the values beneath the ticket.

Heterogeneity contributes to increase both opportunities and threats concerning the augmented variety of combinations in space of the manifold resources: a service provider such as Accor had the great chance to develop different adaptations of the same service (such as in the case of Social Ticket) according to country or regional features. By adopting this viewpoint, open-endedness, despite the difficult to cope with, represents a powerful way to create value.

Activity patterns

The difficulty in combining heterogeneous interaction processes, in which a multiplicity of resources, actors and activities are involved, poses a serious challenge in terms of the complexity of adaptation over time in service networks (Hakansson et al., 2009; Lusch, Vargo & Tanniru, 2010). Activity patterns are relevant in the attempt to avoid adaptation difficulties by developing activities specifically dedicated to support this process (Gronroos, 2010). In this sense, we can interpret the huge investments made over time by Accor to develop simple procedures (i.e. taxes and ticket refunds) that facilitate the integration of the activities performed by both its customers and its affiliates. Another important specificity of activities, emerging from

the Accor case, relates to the interconnection and the inseparability of the production-delivery activities within a service process (Gronroos, 2001; Zeithaml and Bitner, 2003): this stresses out that value creation is typically an output of interactions among several different actors (Gronroos and Ravald, 2009), both producers and customers, as in the case of the vouchers distribution to final beneficiaries (involving both Accor and its customers) or the refund process (involving both Accor and the service providers).

This of course emphasizes the need for synchronization among the different activities performed by each actor, in order to generate joint value. The service process is essentially simultaneous and its simultaneity determines opportunities as well as limits that have to be taken into consideration by managers operating in a service context (Edvardsson, Holmlund & Strandvik, 2008). In this sense, the implications about activities emerging from the Interaction Model applied to service networks are twofold (see table 2).

Table 2. Activity layer and its implications in service networks

What are the implications in service networks? (Time)	TIME	Layer	SPACE	What are the implications in service networks? (Space)
- Complexity in adaptation (which leads to focalization and externalization of activities)	Specialization	ACTIVITY PATTERNS	Interdependency	- Increased tie-up (limited degrees of freedom)

Source: Our elaboration on Hakansson et al. (2007; 2009)

The specialization of each actor's activities in time, caused by the interactions, is particularly complex, due to the inseparability and simultaneity of activities in service processes (Gummesson, 2007), that tend to blur the boundaries between the activity patterns; focalization and externalization of activities are two possible options to cope with this issue in service networks. According to our analysis, interactions among actors calls for a clearer definition of the different roles actors play in the network so as to diminish the uncertainty connected with the inseparability.

The Ticket Restaurant respects and emphasizes the specialization of each actor involved in the network, while developing a process of coordinated and interdependent activities among them: in this sense, Accor makes consistent efforts to

strengthen the mechanisms of coordination of activities (i.e. see the development of central platforms of coordination), while centralizing and directly governing the most complex activities of the service process. Ticket Compliments, for instance, represents for companies a way to externalize part of the rewarding activities for employees and partners.

Interdependency of activities in space is overstressed in service networks, as a result of the substantive inseparability of the service process as a whole: the focalization of each actor on specific activities, eventually coordinated by a focal firm (as Accor), increases the ties among activities, but of course can limit the degrees of freedom of each actor. In the case of social vouchers (such as the Italian Voucher Conciliazione), Accor and the public institution becomes a unique counterpart in the perception of the citizens: while the institution is in charge of the identification of both the beneficiaries and the services to promote through the voucher, Accor directly manages the selection of specific service providers, the voucher distribution and the main communication materials devoted to inform the citizens.

Actor webs

In our analysis, we have pointed out the relevance, for the Accor process of evolution, of the development and the rejuvenation of resources (especially intangibles) thanking to the interaction and co-evolution with the old and new actors entering its network. Actors increased in number and in complexity over time: not only different typologies of service providers (travel agencies, laundries, babysitters, etc...) and customers (small, medium companies) were integrated in the network, but also new kinds of actors (companies' partners and customers, citizens) assumed a crucial role in the interaction process. This is coherent with the specificities of service contexts, where, as underlined in literature (Ramirez, 1999) value creation processes in are co-invented and combined through interactions among several actors, that can provide heterogeneous resources and activities.

As seen in the case, the development of innovative services, such as People One – the work-life balance package-, depends on the ability to interact with actors, previously only indirectly related to Accor (through Accor's customers and affiliates), and to exploit the potentialities coming out from the new intangible resources provided by them: in our example, final beneficiaries are directly involved in the service designing and in its supplying. Service interactions (value co-creation interactions between

service systems, as defined by Sphorer et al, 2008) represent a key issue in service networks, as they stress out the relevance of collaboration and adaptation among actors within a service system.

This pinpoints some main specificities about the Actor layer in the interpretation of Interaction Model in service networks (see table 3). The jointness of actors in space requires actors belonging to a service network to take into consideration the multifaceted cognitive match implicit in interaction. The co-evolution over time thus implies a critical simultaneous alignment-misalignment process, because of the inseparability affecting the service activities (as seen above).

Table 3. Actor layer and its implications in service networks

What are the implications in service networks? (Time)	TIME	Layer	SPACE	What are the implications in service networks? (Space)
- Critical simultaneous alignment-misalignment process	Co-evolution	<i>ACTOR WEBS</i>	Jointness	- Multifaceted cognitive match

Source: Our elaboration on Hakansson et al. (2007; 2009)

Jointness in space in a service context is a consequence of the increased closeness between actors' activities and resources. This strong embeddedness, in fact, implies not only a physical confrontation among actors, but also a cognitive one: heterogeneous actors need to confront and negotiate their (more or less) different knowledge, languages and cultures that determine different expectations, benefits searched, perceptions of the intangible resources exchanged within the network. In practice, as pointed out by the Accor management, a new strategic approach has been developed in order to exploit the potentialities of the jointness in services: in recent years, its sales force received new objectives and incentives linked to their ability to support the cognitive matching of the main affiliates.

The complexity of the cognitive confrontation in time leads to the creation and alternation of continuous states of alignments and misalignments between parties on which the firm has to act in a strategic way. More than in other contexts, in fact, when resources are mainly intangible, the effectiveness of the whole network depends on the compatibility and alignment of actors, in terms of perceptions, behaviours and

levels of reciprocal trust. Equilibrium between parties is quite unstable due to the complex interdependency between actors and to the dynamicity of the business context; this is the reason why companies' attempt to search for an alignment is continuous. Opportunities and limits are generated from cognitive confrontation over time: the co-evolution of actors can be invalidated, if not properly managed, by potential misalignments, deriving from the basically intangible nature of resources exchanged. In this sense, service entities are compelled to develop mechanisms of coordination. In the last decade, Accor heavily invested on selection of affiliates: the quality of the whole service perceived by the final beneficiaries relies on the continuous search for alignment among the actors involved, i. e. about their shared values and objectives (such as in the recent Accor campaign for healthy food and equilibrated diet). The challenge for tomorrow is to develop formal programs of training and development devoted to affiliates and other relevant actors belonging to the Accor network.

Here below we summarize the three layers and their main criticalities and opportunities in service networks, as they emerged from our study.

Table 4. The three layers and their implications in service networks

What are the implications in service networks? (Time)	TIME	<i>The three layers</i>	SPACE	What are the implications in service networks? (Space)
- Complexity in adaptation (which leads to focalization and externalization of activities)	Specialization	<i>ACTIVITY PATTERNS</i>	Interdependency	- Increased tie-up (limited degrees of freedom)
- Conscious unpredictability - Opportunity to explore new scenarios	Path	<i>RESOURCE CONSTELLATIONS</i>	Heterogeneity	- Open-endedness of possible combinations (because of the knowledge based nature of exchanges)
- Critical simultaneous alignment-misalignment process	Co- evolution	<i>ACTOR WEBS</i>	Jointness	- Complex cognitive match

Source: Our elaboration on Hakansson et al. (2007; 2009)

8. Conclusions and managerial implications

This paper was aimed at exploring the concept of interaction in service networks. Interaction, as the main driver for value creation and transferring among actors, has become more and more a central concept in service research.

Important changes in the market require in-depth understanding of the process of interaction in service networks even more stringent. This criticality can be mainly related to the growing transition from the creation of goods to the process of serving, from the dominance of tangibles to the primacy of intangibles and from a transactional view of exchanges to a relational one. But it also implies considering not only the customer and the supplier as central roles of the processes of value creation, but also the wider range of actors around them. In this paper we argued that, even though many scholars in the past highlighted the centrality of the interaction concept for the development of the service-centered logic of marketing, an in-depth understanding and modeling of it still seems to lack.

At the same time, in a different but connected stream of research, we found that interaction has been one of the key issues for research on industrial networks; we refer in particular to the IMP's scholars, who have characterized and theoretically modeled interaction as a series of processes occurring in time and space and involving web of actors, patterns of activities and constellation of resources. However, a gap seems to emerge. We pinpointed that the interaction model by the IMP group is still quite generic. No scholar until now considered its specific applications in a service network context and there is also a scarcity of empirical applications of it.

These gaps represented the starting point of this study. We applied the interaction model by the IMP group to a service context in order to contribute to both the two fields of research, service centered logic and industrial network approach. Through the IMP interaction model, in this paper we have re-read the changes occurred in the network of Accor Services, a leading global company expert in delivering end-to-end solutions for rewards, compensations, incentives and loyalty programs for employers and citizens. Findings from our study show that when the model is applied to a service network context, new dimensions emerge, offering further specifications of ones presented in the Interaction model; these new elements better fit the peculiarities of modern service contexts and cannot be ignored by academicians on service and business networks and by managers as well.

Important managerial implications in fact arise from the study. First of all, an in-depth understanding of the features of interaction processes in time and space could support managers in identifying the critical areas for value creation, and how these areas are interrelated to each other. This knowledge, in turn, could reduce helps at exploiting synergies and interdependences between the different elements that compose interaction processes. Moreover, realizing how interactions occur could also help managers in individuating potential areas of innovation and the extended effects that can be generated by investing in them.

Limitations from the study are instead mainly related to the specificity of the case considered. Further research should compare multiple cases in order to extend the generalizability of our findings. We also think that the general model of interaction developed in the IMP framework could benefit from being applied in specific business contexts in order to catch the peculiarity of each of them.

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