

Integrating VSA and S-D logic for conceptualizing viable value co-creation: an application to entrepreneurial intention and innovation in service ecosystems

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ABSTRACT

Purpose The work aims at integrating Viable Systems Approach (VSA) and Service- Dominant logic (S-D logic) for rereading value co-creation according to a system view. Starting from the identification of the common points and of the dissimilarities between the two theories, a combined framework for pinpointing the key drivers leading to the emersion of viable value co-creation in system organizations is elaborated.

Methodology/ approach An overview on VSA and S-D logic key dimensions is conducted in order to identify the main features of both frameworks. S-D logic and VSA assumptions are analysed (with particular focus on VSA managerial implications) and then subdivided into four macro-areas which represent the theoretical basis for the emersion of four drivers for viable value co-creation in (eco)systems organizations. The key dimensions for fostering viable value co-creation are further applied to the conceptualization of entrepreneurial intention and innovation in service ecosystems.

Findings This contribution recognizes the recurring dimensions of both VSA and S-D logic which prepare the common ground for a reinterpretation of co-creation in the light of system view. The combination of the two theories allows pinpointing four drivers enabling co-creation in viable systems: 1) systems actor's identification; 2) boundaries degree openness; 3) relational development (how to activate and maintain relationship); 4) decision- maker's role in goals alignment (toward viability).

Implications From a theoretical point of view, the study enhances a better understanding of value co-creation and of the mechanisms underlying service interactions. Regarding managerial standpoint, revealing the drivers for viable value co-creation can aid managers to better elaborate strategies for managing and optimizing relationships among actors in order to challenge complexity.

Originality/ value The study proposes an integration between VSA and S-D logic and it is among the first to propose some management strategies for optimizing value co-creation. The holistic view of co-creation and the identification of its drivers establish a research agenda for further research aimed at analyzing the mechanisms and the activities involved in the joint production of value in service delivery.

Keywords viable systems approach, service- dominant logic, value co-creation, viability, system theory, many-to-many relationships

1. Introduction

In contemporary markets, characterized by mounting hypercompetition, organizations should be able to react to context complexity by acquiring a competitive advantage based on immaterial attributes. The centrality of intangibilities in service era, in fact, stresses the relevance of relational and interactive dimensions in service exchanges, which are shaped by actor's inimitable knowledge and result in the offering of a unique experience.

The establishment of such an altered social and economic scenario led to a general shift in service research conceptualizing the transition from a product-oriented perspective (good- dominant logic) to a service and customer- oriented view for interpreting market dynamics.

Starting from the analysis of these environmental modifications, *Service- dominant logic* (S-D logic, Vargo and Lusch, 2004; 2006; 2010) is one of the most relevant services marketing theories adopting a relational approach to the study of market intended as a network of actors (Gummesson, 2002; Grönroos, 2008). The emblem of S-D logic is the concept of value co-creation which refers to the joint production of value among users, providers and all the actors engaged in service provision. In its recent developments, the framework advances the notion of *service ecosystems* (Vargo and Lusch, 2011; 2016; Vargo et al., 2015), in an attempt to underline the complex nature of service exchange as a process of resource integration among a set of heterogeneous and interconnected entities, interacting with each other to achieve shared goals (Vargo and Lusch, 2011).

At the same time, based on *General systems theory* (Von Bertalanffy, 1968) and on *Network theory* (Richardson, 1972; Capra, 1997), *Viable systems approach* (VSA, Barile, 2000; Golinelli, 2000) stands out from among current managerial theories by proposing a general system approach (Ng et al., 2012) for understanding market. Contrary to S-D logic, the theory does not focus on service but it aims at providing new interpretative schemes for challenging complexity through the qualification of organizations as systems intended to pursue viability (Barile and Polese, 2010a).

Being halfway between marketing and management (Barile et al., 2012), VSA advances the adoption of a broadened organizational perspective by shifting the attention from user's standpoint (at an interactive level) to the exploration of overall system's dynamics (Pels et al., 2012). Thus, it can be assumed that VSA, by moving back its viewpoint, can support the identification of the key elements fostering value co-creation as conceptualized in S-D logic.

For this reason, the aim of this work is to combine the two theories (S-D logic and VSA) in order to propose an integrated model for detecting the drivers for ecosystem's value co-creation (and viability) in an overall perspective connecting actor's point of view (interactions and resource exchanges) with the analysis of strategic and decision- making stages such as stakeholder's selection or the redefinition of governance.

In so doing, the paper attempts at answering the specific call - formalized in literature- for the adoption of a systems approach for rereading service provision and for espousing a holistic understanding of value co-creation (Ghoshal and Moran, 2005; Wieland et al., 2012). Despite the emergence of this need, however, there is no agreement in extant research regarding the levers for enabling value co-creations (Barile and Polese, 2009).

Moreover, previous studies often do not adequately explore the managerial implications of S-D logic (De Groot et al., 2010), which can be thus considered as a philosophical theory (Barile and Polese, 2010a). For this reason, its combination with VSA, which shows a managerial orientation, permits to go beyond the actor's level to point toward the exploration of decision-making processes underlying resources exchange.

Therefore, the study seeks to answer the following research question:

RQ: Is it possible to combine Service- dominant logic and Service ecosystems view with Viable System Approach to embrace a holistic framework for identifying the drivers for value co-creation in viable service ecosystems?

In particular, the exploration of the main common features of S-D logic and VSA aimed at exploiting the peculiarities of both theories (and their recurring dimensions) can lead to a systemic reinterpretation of value exchange. The adoption of this viable ecosystems perspective permits in turn to practically reveal the drivers for value co-creation emersion: 1) strategic selection of actors (who); 2) boundaries openness and resources integration (what); 3) relationship management and development (how); 4) systemic governance and goals-objectives alignment (toward).

The paper is structured as follows. Firstly, an overview on S-D logic and VSA main features is conducted in order to pinpoint their macro-dimensions for recognizing differences and commonalities between the two frameworks. Thus, starting from the recurring concepts identified in the review, the integration of S-D logic and VSA leads to the emersion of four drivers for viable value co-creation. These drivers are then singularly analysed and described in the following paragraph in an attempt to reread them according to the “new” system view of value co-creation. Finally, the four levers identified in the theoretical section are applied to the specific context of innovation ecosystems. Finally, conclusion and implications are debated and the limitations of the work are discussed to address future research to further developments of the issue.

2. Theoretical background

2.1 Service- dominant logic: toward the emersion of service ecosystems view

Based on relational marketing (Gummesson, 2002; Grönroos, 2006) and on the conceptualization of business as networks of relational service activities, *Service- dominant logic* (S-D logic, Vargo and Lusch, 2004, 2006, 2010, 2016) can be considered as the natural result of the abovementioned shift from a manufacturing logic (tangible goods) to a service- based approach to the study of market.

In line with this shift, the theory proposes the transition from a *goods-dominant (G-D) logic* grounded on value exchange intended as a mere economic transaction (focused on service output) to a perspective centered on the relevance network interactions as drivers for a joint process of value generation.

This perspective redefines three concepts in the light of this new mindset: 1) service, in its definition and in its relationship with goods; 2) user-provider relationship, by overcoming a clear separation between the two roles; 3) value resulting from service delivery, which is defined as a multi-level process involving multiple actors and resources and interactions. The originality of this collaborative approach is related in particular to the latter assumption from which value co-creation arises as the symbol of this new interactive- centered perspective. Introduced by Prahalad and Ramaswamy (2000), the notion refers to a new understanding of value generation as a complex process in which experiences are jointly developed by providers and their stakeholders leading to the creation of personalized experiences (Prahalad and Ramaswamy, 2004).

S-D logic's key assumptions are expressed in the popular foundational premises (FPs, Vargo and Lusch, 2004; 2008; 2016).

In detail, the first four propositions are referred to service definition, which is viewed as the application of specialized competencies (knowledge and skills) through deeds, processes and performances for the benefit of another entity or the entity itself (Fp1, Vargo and Lusch, 2004, p.2, 2006, 2008). Value exchanges are not anymore simple economic transactions but rather are seen as *service-for-service* exchanges in which actors directly interact with each others in an ongoing process of mutual adaptation (Fp2). So, from being “physical” vehicles for service delivery, goods become simple means enabling the exchange of immaterial features of service (knowledge above all). Regardless of the kind of offering, service is the actual benefit generated by provision (Fp3). Service delivery, in fact, is understood in this vision as an ongoing process of exchange of resources, which are concretely “applied” through active participation of users providing *operant resources*. Operant resources are a set of not codified knowledge deriving from actor’s personal experience and trust and then released in service provision. Immaterial operant resources play a key role since they are essential means for transforming and making valuable *operand resources*, that are tangible and static natural resources (Fp4). Thus, operant resources are a central lever for acquiring competitive advantage (Constantin and Lusch, 1994).

From Fp5 to Fp 10, Vargo and Lusch redefine the notion of value. Seeing as in service economy (Levitt, 1981) the real benefits of exchange lie in service, which are the basis for each kind of offerings (Fp5), it can be affirmed that value does not lie in the production process but it is rather used, transformed and co-produced by customers (and users in general, Fp6). So, it is actualized through *value-in-use*, the result of actor’s active transformation and consumption of the value offered (Vargo and Lusch, 2006, 2008). It follows that value exchange is a relational- oriented mechanism grounded on ongoing interactions among users and real time “adjustments” (Fp8). Providers are not value producers but they only advance value propositions: this implies that value arises only from the interaction and resources integration which in turn create subjectively perceived value (Fp7). Given that all entities are resource integrators and service providers, the distinction between user’s and provider’s role disappears. Finally, co-creation is a complex set of mechanisms and procedures involving market-facing, public and private resources (Fp9) which generate a value strictly context-dependent (Fp10), a unique and unpredictable phenomenon shaped by a particular context in a given time and assessed by specific subjects whose perceptions derive from the social environment in which provision occurs.

The last premise (Fp11) is proposed by Vargo and Lusch (2016) to formalize the role of institutions (rules, norms, meanings, symbols, practices implemented during service interactions) and institutional arrangements (interdependent assemblages of institutions) in enabling and coordinating value co-creation.

This “late” extension is related to the preceding proposition of *service ecosystem view* (Vargo et al., 2008; Lusch and Vargo, 2014; Akaka et al., 2013; Vargo et al., 2015), fostering the adoption of a holistic optics for understanding the dynamics of exchange (Vargo and Lusch, 2008) and for emphasizing at the same time the role of social links in value creation. Institutions are one of the main features of service ecosystems, which are network of actors exchanging skills and resources through interactions based on shared pre-existing social rules and thanks to technological means and a common language (Vargo and Lusch, 2010).

In line with the brief overview conducted above, it can be noticed that three main underlying features arise from the 11 foundational premises and from service ecosystem’s definition, corresponding to the key elements acting as prerequisites for value co-creation: 1) resources integration, from Fp1 to Fp5; 2) actors, from Fp6 to Fp9; 3) institutions, formalized in Fp10 and Fp11.

Moreover, as figure 1 shows, these three dimensions also correspond to the key features of service ecosystems. Even if there is no agreement on the elements qualifying ecosystems, in fact, from the various classifications proposed in literature (Akaka et al., 2013; Ruokolainen and Kutvonen, 2012; Frow et al., 2014; Vargo et al., 2015), actors, resources integrations and institution seem to be the most relevant levers for value co-creation.

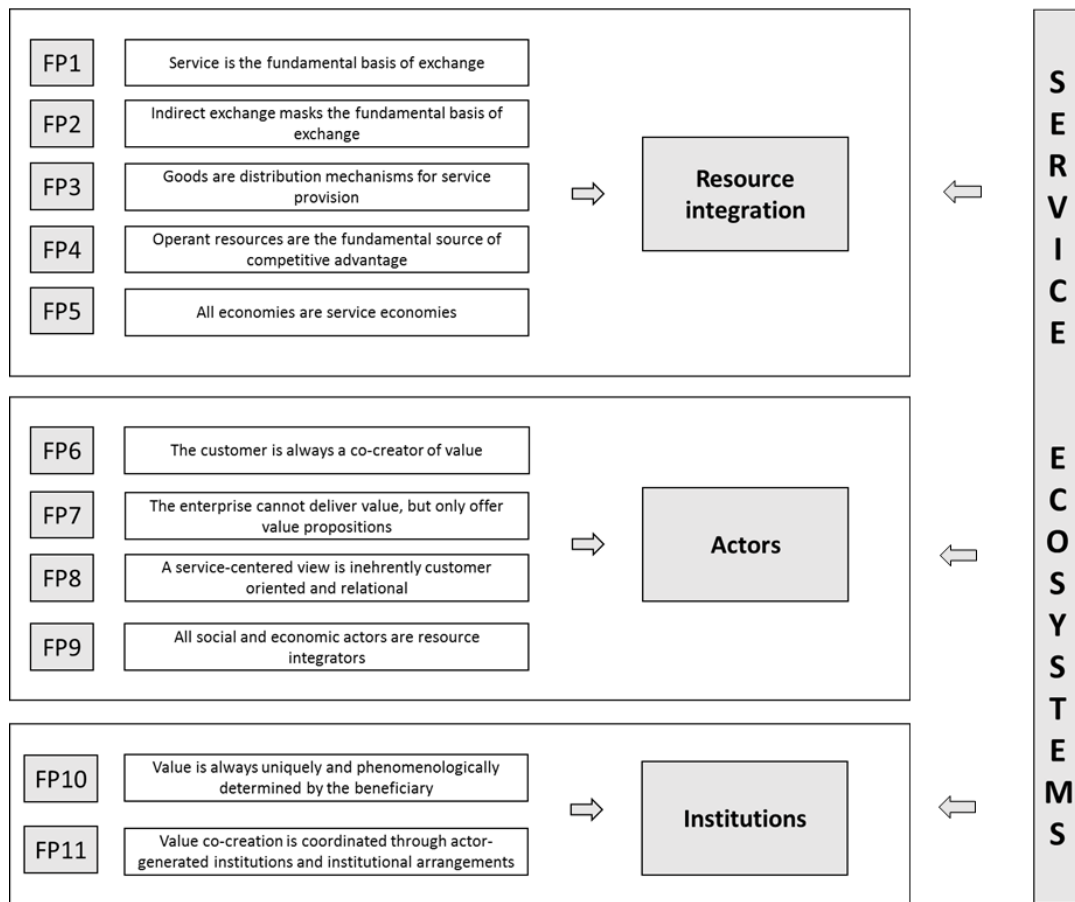
The first dimension, the interactive feature (*resource integration*), is the central moment of value co-creation and the conceptual core of S-D logic. The concrete encounter provider-user is based on resource integration practices that are an essential means for connecting people (both internal to a single system and external among different service systems) and for improving service effectiveness and innovation (Spohrer and Maglio, 2008; Akaka et al., 2013; Ciasullo et al., 2016).

Regarding the second dimension (*actors*), it can be stated that human component is extremely relevant in the production of common value, since users are seen as active participants involved in *service-for-service* exchange as part of a network in a multi-stakeholder vision (*actor-to-actor*, A2A).

Also the relevance of social context in service exchange is often reaffirmed in S-D logic, which highlights the centrality of the ongoing process of *in-use* interactions in determining the joint production of value (Vargo and Lusch, 2008). This dimension includes all the social (institutions, social norms) and symbolic factors (culture, shared meanings, value proposition, routines and narration) that impact on value co-creation at both individual and collective level and which contribute to the establishment of ongoing and durable relationships among the actors involved.

Finally, it can be maintained that from this brief review a system approach gradually emerges in S-D logic's latest developments, both in the introduction of: a) FP11 and the notion of institutions; b) service ecosystems. This broadening is aimed at including social environment and users' social ties as preconditions for value co-creation and at adopting a more all-encompassing approach to service systems definition. Such a holistic orientation represents the starting point for proposing the further integration of S-D logic with *Viable systems approach*, a system theory described in the following paragraphs.

Fig.1- SDL key features: from Foundational Premises to the emersion service ecosystem



2.2 Viable Systems Approach: a meta- model for organization viability

Viable systems approach (VSA, Barile, 2000; Golinelli, 2000) stands out among extant theories on service, since it widens the focus to organizations' study at an overall level by providing useful interpretation keys for the observation of their complex context and for the analysis of the relationships established for gaining survival (Golinelli, 2000; Barile, 2000; Golinelli et al., 2001).

Introduced in the last two decades, VSA represents a methodological framework interpreting every entity (organization or individual) as a system composed of operating structure and governance organ and made up of interconnections with supra-components and sub-components in an attempt to achieve common goals (Polese and Di Nauta, 2013; Golinelli et al., 2001). The theory descends from system thinking and in particular from *General system theory* (GST, Bogdanov, 1922; Von Bertalanffy, 1968; Lazlo, 1996; Meadows, 2008) and from *Open system theory* (OST, Katz and Kahn, 1978). By combining GST and OST, VSA is an interdisciplinary approach espousing a holistic view (Capra, 1997) halfway between organizations viewed a whole of interacting components (in line with GST) and from the willingness to explore the ways in which they survive in changing environmental conditions (in line with OST) (Barile and Polese, 2010a).

For these reasons, VSA, which provides an all-encompassing understanding of contemporary *service era* evolution, is herein selected as a theory aimed at rereading traditional organizational models (see paragraph 4). If, as seen before, S-D logic focuses on the reinterpretation of service exchanges through

a new relational logic, VSA proposes new interpretative schemes for challenging environmental transformation (Barile, 2008; Golinelli et al., 2001).

In line with S-D logic dimensioning (see par. 2.1), also VSA key assumptions, the ten foundational concepts (FCs, Barile and Polese, 2010b), can be subdivided into four macro-areas: 1) systems actor's selection (FC1, FC2); 2) system's openness degree (FC4, FC5); 3) relational dynamics (FC3, FC6, FC7); 4) decision-maker's role in ensuring viability (FC 8, FC9, FC10).

Regarding the first dimension, VSA main actors, individual, organizations and institutions, are considered as systems, a whole of parts pointing toward a given finality (Beer, 1975) (FC1). According to a recursive logic, each system lies at a L level and can pinpoint supra-systems (L+1) and sub-systems (L-1) for establishing relationships (Parson, 1966). The role and the nature of systems (so, their level L, L+1 or L-1) change depending on their specific and subjective standpoint (FC2).

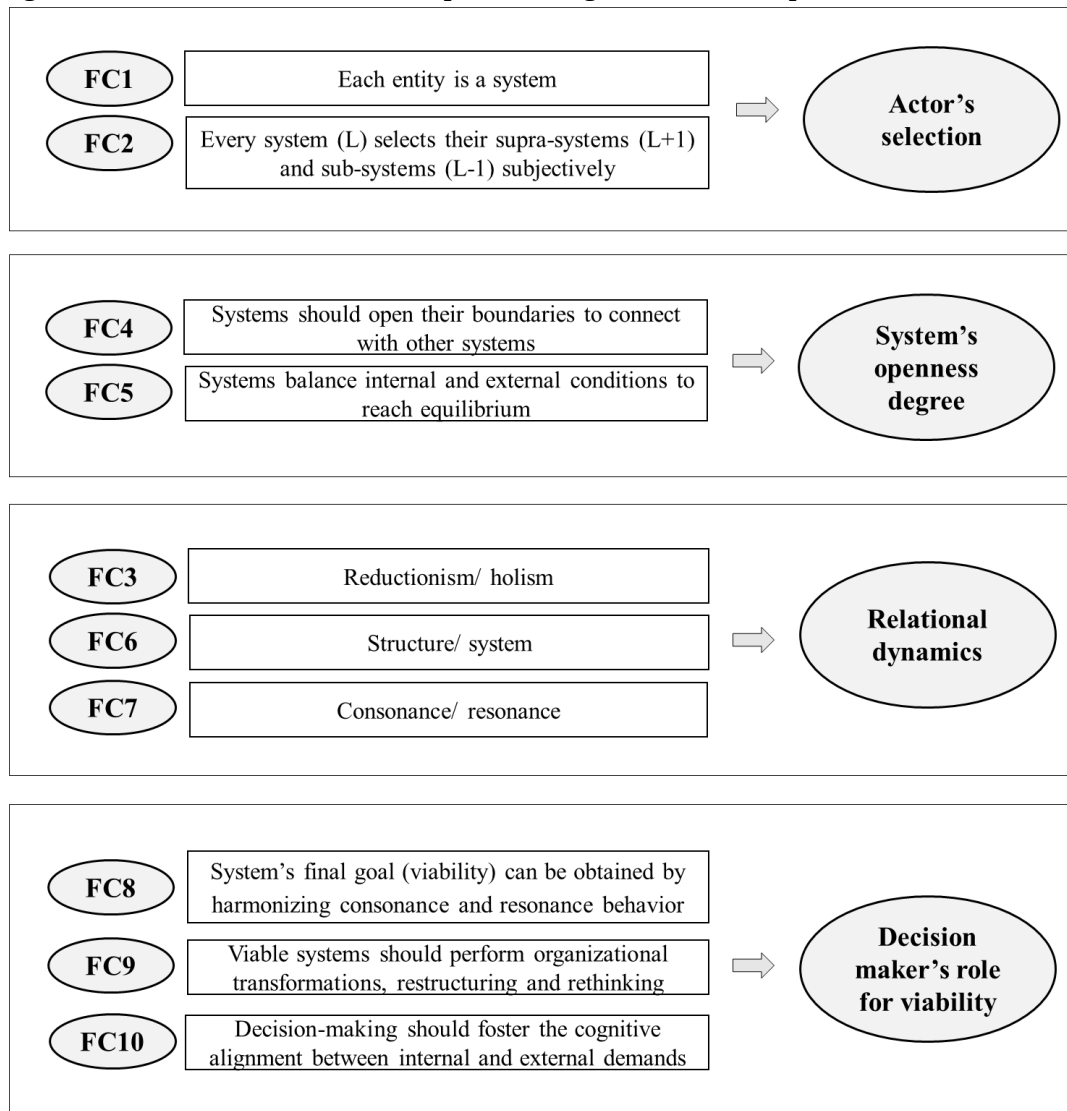
In FC4 and FC5, VSA addresses the issue of boundaries' openness, essential for ensuring resources exchange (intangible or tangible) with other systems (Barile, 2008). In selecting their openness degree, systems establish what is internal or external and shape their boundaries (FC4) through specific criteria (from the core business to a relational feature, Pfeffer and Salanick, 1978). These "open" systems should be able to adapt to external context but at the same time should preserve their structure (Hannan and Freeman, 1977) by maintaining their identity (self-regulation, autopoiesis and homeostasis) and gaining equilibrium (FC5). The mediation between internal and external environment occurs respectively through self-regulatory mechanisms (as code of behavior or internal guidelines) and through the acceptance of norms or legal requirements (Beer, 1975; Golinelli, 2000). One of the main peculiarities of VSA is the proposition of dichotomies (reductionism/holism; structure/ system; consonance/ resonance) to identify the strategies for maintaining relationships and developing synergy by managing the fit between a static and dynamic level. Firstly, the theory (rather than simply shifting the attention from the parts to the whole) adopts a viewpoint synthesizing between reductionism and holism (FC3) by analysing both parts and their relationship and the whole (Von Bertalanffy, 1968; Golinelli et al., 2002). In line with this dual level of analysis, the isotropy postulate (Golinelli, 2000) states that each organization owns a structure (an operational set of individuals with given roles, activities and tasks accomplished according to rules and constraints) which can be transformed into a system (FC6) by concretely activating relationships with sub-systems and supra-systems (Golinelli et al., 2002). The last dichotomy (FC7) is related to consonance, concerning the potential structural compatibility among stakeholders at a static level, and resonance, which necessarily should be realized to turn consonance into a dynamic level of real armonious interactions that corresponds to system's emersion (Barile and Polese, 2010b).

The ability to perform consonant and resonant behavior can lead to system's viability (the last VSA dimension), that is the capacity of surviving over time (Barile and Saviano, 2011) and so to acquire competitiveness that consists in the provision of experiences and profitable exchanges in turbulent scenario (FC8). Organizations can be defined viable if are able to survive in their context through dynamic adaptations of their relationships (at a system level and at a structure level concerning peripheral components) and transformation of organizational design, business restructuring and rethinking at a core organizational and identity level (FC9, Golinelli, 2010). Finally, Organ of Governance's (Oog) role in viable systems is defined. This subject plays a leading role in challenging environmental turbulences by aligning external and internal complexity (Piciocchi et al., 2009) and moving from total indeterminacy (in understanding phenomena) to variability (the only ability to observe contextual changes) to variety (the possibility to identify variants in solving a problem,

Golinelli, 2010). Each Oog implements a personal scheme depending on its subjective interpretation of the given context (FC10).

The categorization of the ten FCs discussed above into four macro- areas of VSA (actors, openness degree, relationship and decision-making), illustrated in figure 2, can be identified as a starting point for the integration of S-D logic and VSA. VSA seems to include naturally the main features of S-D logic identified in the previous paragraph. The theory, in fact, observes systems ability (actors) to manage their relationships (resources integration) according to regulating mechanisms (institutions) for satisfying each entity (goals- objectives alignment and viability).

Fig.2- VSA macro- areas: actors, openness degree, relationships and decision-making



3. VSA as a lens for rereading marketing and S-D logic: toward viable value co-creation

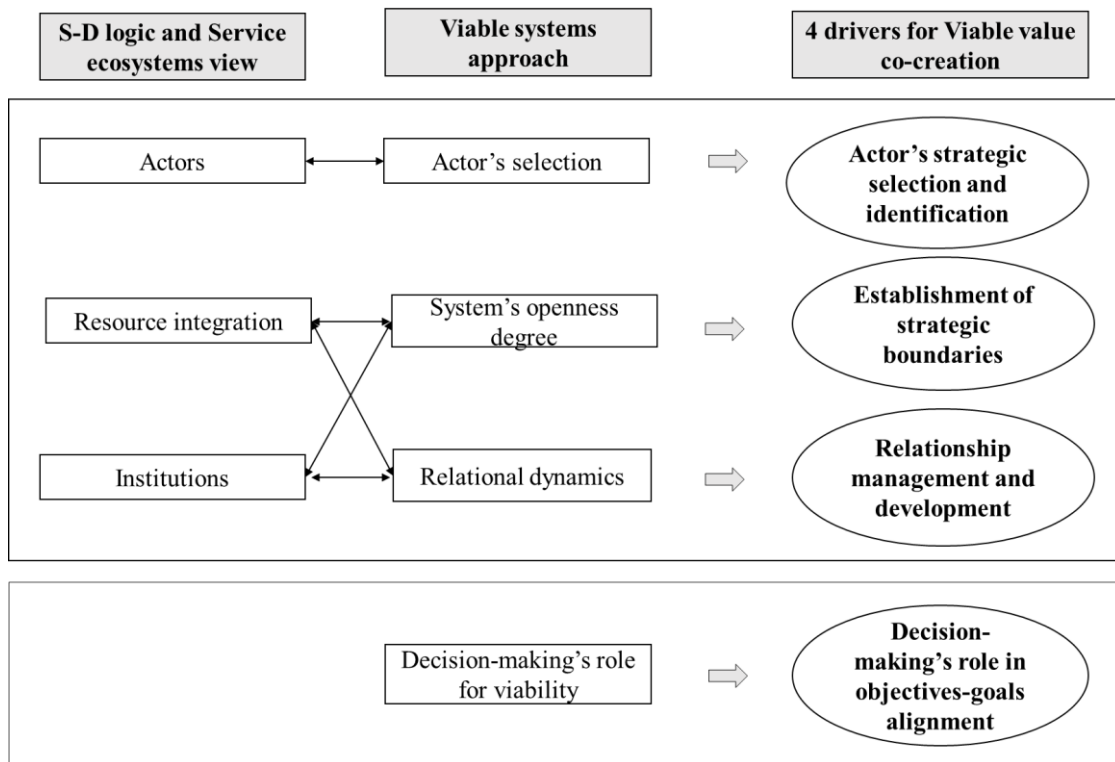
As the overview conduct above reveals, the identification of S-D logic and VSA main features highlights some significant commonalities between the two frameworks. Overall, VSA foundational concepts start from the idea that organizations cannot produce value in isolation: this assumption is in line with value co-creation, the core concept of S-D logic. Therefore, both the theories share a common relational orientation and put emphasis on relationship management as a key lever for

gaining competitiveness, thus viability and value co-creation. Moreover, the conceptualization of open systems based on reciprocal exchanges aimed at gaining shared interests seems to comply with the notion of ecosystems and with many-to-many and multi-stakeholder perspectives espoused in S-D logic.

By comparing VSA and S-D logic macro-areas, the key features of the frameworks seem to match. VSA, in fact, observes Organ of governance's ability to subjectively select stakeholders (actors in S-D logic) to optimize their relationships (resources integration in S-D logic) according to regulating mechanisms (institutions in S-D logic) for satisfying each system's entity. The pillars proposed in *Viable systems approach* can be considered as a specification of S-D logic's and ecosystem's main dimensions (actors, resource integration and institutions). Not only these assumptions seek to more concretely define and categorize actors, but they also aspire to describe the way in which organizations should open their boundaries and to pinpoint the most adequate strategies for choosing stakeholders and harmonizing relationships. It follows, as figure 3 shows, that VSA adopts a comprehensive perspective going beyond the level of interactions and including the observation of decision-making's roles in ensuring system's synergy and well-being by pursuing the fit between stakeholder's and (eco)system's interests (Barile, 2009; Saviano and Berardi, 2009). In detail, VSA can contribute to explain system's development and relational dynamics (Polese and Di Nauta, 2013) by describing system's capability to establish and gradually encourage relationships through sustainable evolution in the long run.

By adding managerial dimension, an integration of VSA and S-D logic's can be hypothesized resulting in 4 macro- areas: 1) systems actor's identification (the component of the system: who); 2) system's degree openness (what links should be established); 3) relational development (how to activate and maintain relationship); 4) decision-maker's role in goals alignment (toward viability). These areas can be also intended as key levers for fostering value co-creation, which in the combined model herein proposed can be seen as drivers for viability; effectively, the joint creation of value is considered in VSA literature to enhance final system's well-being (Barile and Polese, 2010a). As a result, a proper management and implementation of the four steps can give birth to viable value co-creation.

Fig. 3- Intersecting SDL and VSA: 4 macro- areas for enabling viable value co-creation



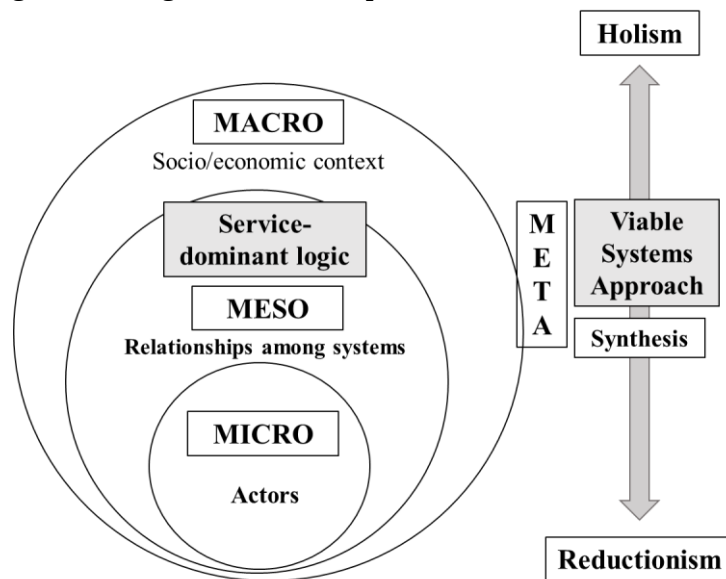
According to our combined framework, VSA offers a holistic redefinition of value co-creation, being suitable for rereading S-D logic through a wider perspective absorbing the interactive and relational levels (Barile and Polese, 2010a). It can be also considered that VSA represents a methodological key for understanding service exchanges, value co-creation (Wieland et al., 2012) and contemporary complex phenomena in service ecosystems. By broadening the focus and shifting the attention from actor's interactions, VSA is herein considered as a meta-model for framing S-D logic.

The logical relationships among the two theories can be better described by adopting the three levels employed in VSA for classifying organizational environments and then recovered in service ecosystem's research (Golinelli, 2010; Chandler and Vargo, 2011): (1) *macro*, (2) *meso*, and (3) *micro*. Macro-environment is the generic social, economic and political environment in which organizations lie and in which all stakeholder's groups can potentially activate relationships since they share common institutionalized rules. In meso-level, instead, all the stakeholder groups identified by a system as relevant actors (Frow, 2014) for establishing durable relationships are included. This stage connects macro-level with micro-level, that corresponds to the inner profile of each system-organization, composed by an operating structure (employees, property, equipment etc.) and an Organ of governance (Oog). The transition from micro (individual intentionality) to meso (shared purposes) leads to the emersion of specific collaborations with other systems at a supply chain level (Barile, 2008).

In line with this categorization, the two theories can be positioned at different logical levels: VSA can be represented as a bridge which synthesizes micro, meso and macro level by exploring actors (micro), relationships (meso), macro- environment and above all the strategies for harmonizing the three dimensions (meta-level) in search of continuous fit between system's overall goals and

stakeholder's objectives (meta level). By focusing on relational dimension, S-D logic can be situated at a meso-level (See fig. 4).

Fig. 4- The logical relationships between VSA and S-D logic



So, it emerges the need, also formalized in literature (Barile et al., 2012), to analyze value co-creation in terms of its contribution to system's overall well-being, since extant research lacks the elaboration of a unifying systems perspective (Golinelli et al 2012) for reinterpreting services marketing theory such as S-D logic.

Therefore, the aim of this work is to adopt VSA as a methodological lens for exploiting the strong points of both theories and for exploring value co-creation relationship with viability. From this all-encompassing and multi-layered perspective, a viable service ecosystem can thus be understood as a complex system of reticular interactions and resources exchanges between entities that should be harmonized by decision-makers in order to pursue shared finality.

4. A framework for ecosystem: 4 drivers for viable value co-creation

4.1 Actor's selection and identification

The first step in qualifying viable service ecosystems according to an integrated logic (VSA+ S-D logic) is the definition of the different entities composing system organizations.

According to Vargo and Lusch (2008), in current service exchanges the producer-consumer divide disappears. Each actor is both provider and beneficiary and is part of a larger networked structure: for this reason, the authors state that also B2B- B2C distinction vanishes and that service ecosystems are based only on B2B interactions (Vargo and Lusch, 2011). This overall interactive level in which each subject plays the same macro- role is defined *actors-to-actors* view (Vargo and Lusch, 2008), a level of abstraction in which all actors are node in the wider ecosystem (with their own networks), doing the same things, co-creating value through resource integration and service provision and offering value propositions (FP6 and FP9).

However, in the willingness to apply VSA meta model to S-D logic conceptions, it can be affirmed that this *zooming out* (Vargo and Lusch, 2011) in the highlighting transcending roles of resource integrators in service provision must be necessarily integrated with a preliminar actor's classification.

By mediating between reductionism and holism observations, decision-makers should first explore the structural composition of stakeholders (in terms of nature of the given entity, resources owned and shared consonance); secondly, in the concrete interactive and *in-context* dimension (system level) each member will perform its role as a generic actor.

It follows that for further understanding and managing value co-creation, decision-makers, in the light of VSA principles, should: 1) qualify stakeholders by assessing their relevance; 2) selecting the most adequate collaborators (moving from macro-environment to meso-environment).

In VSA, the selection of the actors included in a given system L (sub-systems, L-1) and of stakeholders with which establish relationships (supra-systems, L+1) is an essential moment for strategically ensuring system survival in the long run (FC 1, FC2, FC8).

There are four kinds of environment that Organ of governance should “go through” for choosing their partners: the first, micro-environment, is internal, whereas the last three, macro-environment, meta-environment and meso-environment, are external. The gradual fulfillment of this process leads to the emersion of organizational boundaries (Barile and Polese, 2011), which will be addressed in the second dimension of the framework (paragraph 4.2).

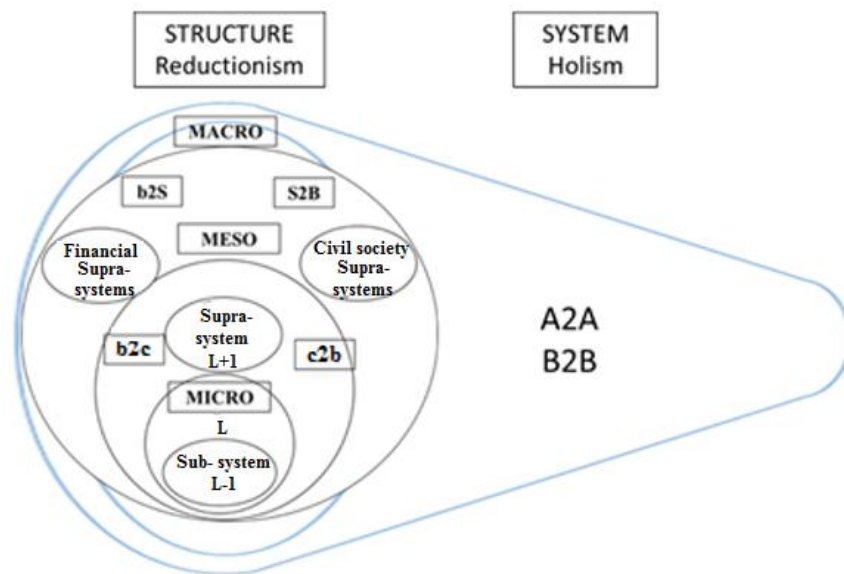
Micro-environment refers to organizational structure (sub-systems), the set of tangible and intangible resources in which ownership structure, equipment and human resources are included. These subjects have the role to implement business activities. This level outlines organizations’ perimeter and their institutional and legal boundaries. Macro-environment represents the general social, political and economic scenario, involving for example the entire banking system from which Organ of Governance should “extract” the most adequate bank as its main economic partner. Meso-environment is composed of the real stakeholders participating in system’s life (Golinelli, 2010). Then, organizations should pass from macro-environment to meso-environment in order to qualify their internal composition (through sub-systems) and their own immediate context (supra-systems). Oog subjectively undertakes this final stakeholder’s selection (from macro to meso level) on the basis of actor’s relevance. Relevance is composed in turn of two main features that should be carefully evaluated: 1) criticality, the degree of preciousness of the resources owned by these external subjects; 2) influence, subject’s capabilities of exercising obligations and constraints (but also advantages) to system’s life (Golinelli, 2000; Frooman, 1999; Pfeffer and Salancik, 1978). VSA subjective optics further extends A2A conceptualization, by defining role variability depending on observation perspective; thus, the same actor can be considered as supra-system or as sub-system depending on its changing role. If employees are sub-systems when they are observed during the implementation of policies, they transform into supra-systems when they play the role of workers interacting with labor systems.

VSA stakeholder’s categorization is in line with *many to many* approach (Gummeson, 2008a), which is also espoused by S-D logic (but then transformed into generic A2A vision through the abovementioned zooming out). This view fosters the concept of balanced centrality which starts from the assumption that customers’ role is overrated to propose a multi-stakeholder classification (Polese, 2009; Gummeson, 2008b). The subjects sharing value propositions (Fc9) can be subdivided into 4 macro-level of exchanges: 1) B2B, business-to-business (micro-level); 2) C2C, customer-to-customer (micro-level); 3) B2C and C2B relationships between businesses and customers (micro-meso level); 4) B2S S2B, relationships with other general stakeholders that also have an impact on value co-creation (meso-macro level). As figure 5 shows, B2B and C2C are dyadic interactions between customers and providers at a micro- level (within a single system), whereas B2C and C2B relationships occur on two different levels (between two or more systems). Moreover, also the whole

community at macro-level included potential suprasystems or general suprasystems such as government, opinion leaders, media, consumers' organizations, etc. should be taken into account (B2S or S2B).

It can be concluded that VSA provides S-D logic actor's conceptualizations with an interpretive lens synthesizing reductionism and holism. The framework defines actor's structural qualifications (structure level) which needs to be integrated to S-D logic with A2A vision (which arises in system holistic level). The dichotomy structure-system and the three kind of environments identified in VSA allow at elaborating decision- making first driver for defining systems and pursuing viable value co-creation.

Fig. 5- The qualification of actors through structure and system



4.2 Boundaries openness degree

As previously discussed, in contemporary changing market, organizations should expand or, at least, redefine their boundaries to increase competitiveness. Starting from S-D logic assumption that firms do not create value in isolation, VSA maintains that they should “open” themselves to establish relationships with supra-systems (FC4). In particular, to survive in complex contexts, systems should perform an adaptive behaviour toward the external changes influencing businesses' life (FC5). At the same time, S-D logic defines competitive business as complex adaptive systems (Vargo and Lusch, 2008) in open connection with others for the exchange of resources.

It follows that, in an integrated framework of VSA and S-D logic, the concept of open systems (FC4) seems to be suitable for understanding the dynamics of resource integration at a holistic level. In particular, the notion of co-creation is inherently associated with the issue of vanishing borders addressed in VSA.

Even if S-D logic does not explicitly discuss the topic of organizational boundaries, since it complies with the idea of shaded organizational boundaries, VSA highlights that borders should be necessarily identified to better manage relationships with stakeholders. Effectively, recent research on this issue (Cantwell, 2013) stresses the difficulty in defining precisely system's boundaries, in line with

dematerialization of businesses and with the disappearance of a clear separation between the roles of the different stakeholder groups involved.

However, as seen with reference to actor's role, according to VSA also boundaries vary based on the observational perspective adopted (FC4). The approach conceptualizes boundaries identification criteria for optimizing resource integration and distinguishes between transactional- legal boundaries and system's boundaries.

Starting from dichotomies, VSA qualifies boundaries through structure–system opposition. Even if borders represent a tangible filter between the inside and the outside of organizations, which should unavoidably be defined, boundaries (such as actor's roles, see par. 4.1) change or temporarily fade during the transition of organizations from static structure to dynamic system.

At a structure level, transactional boundaries (widely debated in literature, Williamson, 1979; Vang-Lauridsen, 2000) delimit organizations by defining their offering and their inner profile (operating structure, ownership, etc.).

System boundaries, instead, refers to the reshaping of borders during real interaction at meso- level and can be modelled on the basis of two criteria: 1) knowledge exchanged; 2) kind of relationship established. In the first place, it can be stated that new knowledge co-produced during service exchanges can modify borders in progress, since changes in routines or the increase in competencies or capabilities determine a “shift” in organizational boundaries. In addition, relationships can also outline borders and can cause their redefinition on the basis of the kind of stakeholders or the kind of relationship established with them. Since relationships are strategically essential for system's viability, they should be integrated upstream organizational strategies as a criterion for sketching borders.

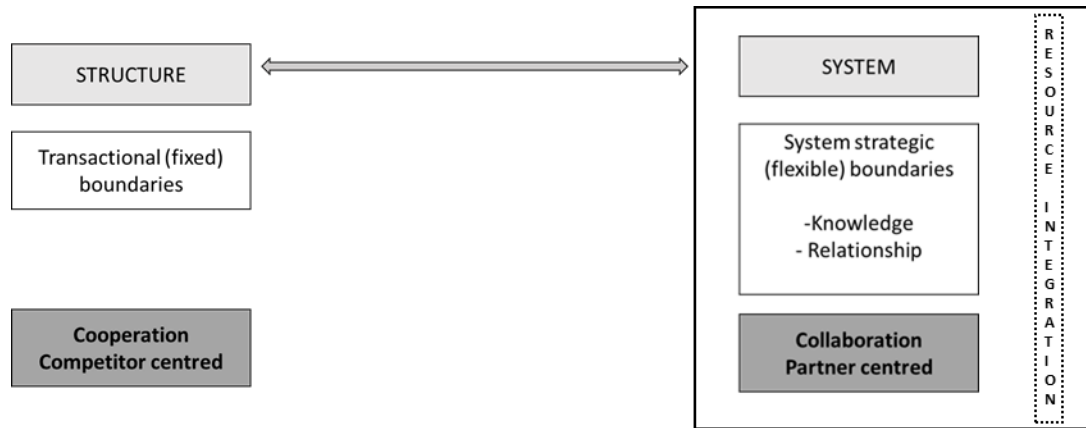
Therefore, in terms of boundaries identification, VSA mediates between firm's total closeness and firm's total openness and between cooperative (competitor- centered) view, and collaborative (partner- centered) view (Piciocchi et al, 2012). The opposition of the two levels (see figure 6) reflects the transition from a competitor- centered standpoint, based on opportunistic connections and on the search for utility (transactional boundaries), to a partner- centered view in which organizations cooperate with each other through a synergistic exchange of resources (strategic boundaries). The first situation is defined competition whereas in the second one firms compete by collaborating and expanding their value chains (Piciocchi et al., 2012): such as for organizational boundaries, the optimum is halfway.

Border's openness fully realizes at the system level (the concrete phase of real interaction and exchanges) whereas closure occurs at structural level (in which companies should strategically “think” of possible restructuring and optimization of relationships). Hence, system boundaries emphasize that even if organizational boundaries are currently dematerialized, every system owns physical and strategic borders that can vary according to circumstances (Golinelli, 2000) in line with the kind of stakeholder and relational strategy established for a given actor.

In the second place, concerning autopoiesis, homeostasis, and self-regulation (FC 5) VSA advances the concept of equifinality, which is the ability of a system to reach the same target (shared goals) starting from different conditions (different stakeholder's interests) and/or along different pathways. Equifinality allows systems at adapting through self- regulation mechanisms which can be better identified through institutions: so, shared institutional arrangements foster mutual value co-creation (Vargo and Lusch, 2016) since through institutions resources and abilities can be optimized. Institutions can be intended as routines, competencies, or capabilities that are strengthened through service exchanges.

In achieving goals, organizations should have the internal capacity to evolve and self-regulate in order to adapt to external changes and survive in the long run. By opening their boundaries, systems collaborate and co-evolve along with their relevant stakeholders and can proactively modify their behavior in line with contextual modifications.

Fig. 6 – Establishment of organizational boundaries: from structure to system



4.3 Relationship development

After stakeholder's selection and the consequent establishment of boundaries openness degree, system organizations should be able to maintain and develop relationships over time.

According to VSA, for enabling relationships and implementing the most adequate strategies for managing collaboration to obtain competitiveness and to survive in the long- run, decision- makers should ensure three kind of (strictly interrelated) fit: 1) holism- reductionism (FC3); 2) structure- system (FC6); 3) consonance- resonance (FC7).

In particular, by proposing a continuous mediation between reductionism and holism and by introducing the concept of systemic resonance, VSA pinpoints some key drivers for better understanding and then enabling value co-creation processes and experiences (Barile and Polese, 2010a). Even if S-D logic is grounded on the relevance of relationships among networks of actors, in fact, the theory seems not to fully address how to manage these relations (Polese and Di Nauta, 2013). Firstly, value co-creation should be observed by moving from the exploration of static relations (structural compatibility) to the analysis of interactions (systemic and potentially resonant). Each system owns a structure composed of a set of elements (equipment, employees, etc.) with specific roles, activities and tasks to perform according to established rules. The passage from structural consonance to systemic resonance requires a transition from a static to a dynamic level. The assessment of consonance and resonance is useful for selecting stakeholders in the first case and retaining them in the latter.

Organizations should assess consonance with stakeholders to identify the potential existence of a common structural basis for exchanges based on the sharing of tangible features. Once consonance is attained, the concrete actualization of ongoing relationships producing synergies toward common finalities is needed through the establishment of resonance (Piciocchi et al., 2012). According to S-D logic categorization of resources, it can be stated that operand resources (such as equipment, financial capital, technology) lie at a structural level, whereas operant resources (such as skills, knowledge,

experience) lie at a systemic level. However, this distinction is strictly referred only to the dichotomy structure-system, since a resource can be considered operand or operant depending on the point of view: thus, an operand resource becomes operant at system level (Golinelli et al., 2015).

A proper relationship management (through the adequate balancing of structure consonance and systemic and dynamic resonance) fosters value co-creation, which, reread through VSA lens, is conceptualized as a condition based on win-win interaction satisfying stakeholder's needs.

The most significant contribution VSA offers to relationship management is the description of the gradual evolution of systems (Polese and Di Nauta, 2013) and of their interactions toward the strengthening on relationships which enables in turn the emersion of resonance and value co-creation. In particular, there are three evolutionary phases systems go through to reach viability: embryonic system, developing system, completed system (Barile, 2009). It can be noticed that at each stage, relationships have a different intensity degree and trust among actors gradually increases from opportunistic behaviour to the emersion of resonance.

In the first phase, in fact, organization chooses its stakeholders based on economic calculus (*calculus-based trust*). Organizations establish links with other subjects based on the search for marginal utility: the goal is to maximize its profits and acquire bargaining power against suppliers and customers. (Piciocchi et al., 2012). At this level, relations are based on contingent consonance schemes for achieving opportunistic simple exchange resonance (win-lose or lose-win logic).

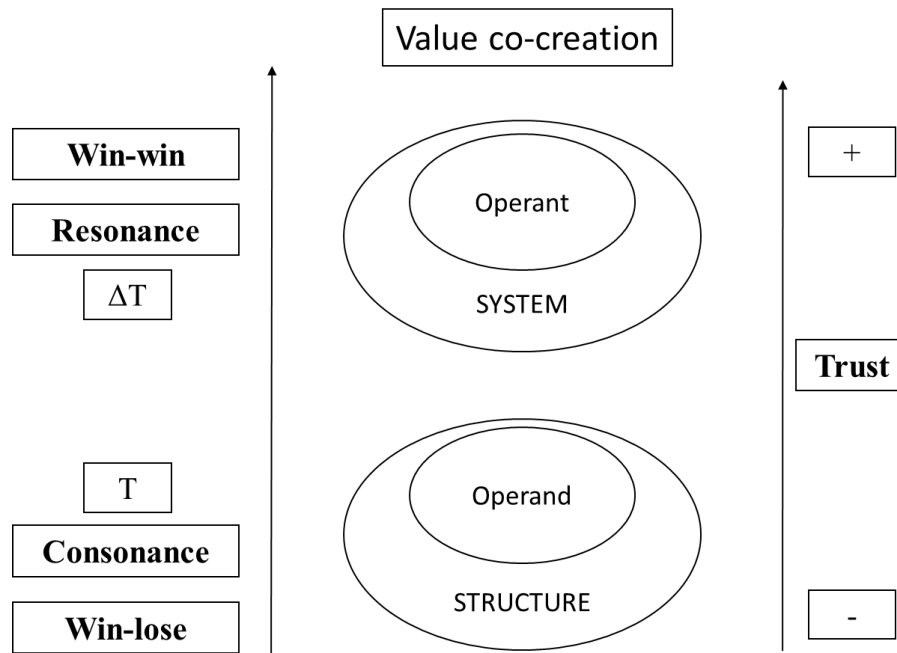
In the intermediate developing phase, as relationships evolve, the knowledge about stakeholders increases and trust enhances. Through the establishment of knowledge-based relationships, exchanges go beyond the research of economic profits to the establishment of consonance at a structural level, projecting systems towards future durable relations. There is an equilibrium in the relational weight, since partners are at the same level of importance and influence on each other. Relations are based on indeterminate consonance to achieve opportunistic and also collaborative resonance (win-lose versus win-win logic).

In the last step, completed systems adopt resonant and consonant behaviour fostering win-win logic exchanges grounded on satisfactory resource integrations and durable relationship in the long run.

Resonant systems are able to generate value co-creation in which each component is a participant in the development of the supra-system characterized by shared aims and no constraints in a win-win logic. The requisite for enabling value co-creation, as a key lever for gaining viability, is the development of trust and relationships toward common growth (Piciocchi et al., 2012). Relationships are not longer regulated by top-down guidelines, but the power is equally distributed among actors. Synergistic exchanges of immaterial resources emerge in terms of tacit and explicit knowledge, skills and know-how useful to guarantee network survival in the long run.

As figure 7 shows, as trust increases and relationships strengthen there are different degrees of resonance toward a final condition of synergy in which each system shares with the others a common value proposition and orientation towards the realization of co-evolution for gaining reciprocal benefits.

Fig.7-From win-lose to win-win and trust-based relationships



4.4 Decision- making and goal-finalities alignment

The three dimensions discussed above, obtained from the integration of VSA and S-D logic assumptions, correspond to three drivers or steps useful for optimizing value co-creation processes. VSA defines value co-creation as a process in which viability is achievable through competitiveness, that is the ability to identify stakeholders and manage relationships with them through harmonization of information and resources exchange (Barile and Polese, 2010a).

Hence, VSA viability (ability to survive) as the final goal of systems is a function of S-D logic value co-creation, so it can be acquired through resonant collaboration with stakeholders (Polese and Di Nauta, 2013). Value co-creation, in turn, fosters competitiveness as the ability to offer satisfactory value experiences and exchanges among systems in a dynamic environment (Flint and Mentzer, 2006). Therefore, in our combined model, value co-creation is a lever for the attainment of competitiveness, which in the long run produces viability.

It follows that the three dimensions identified- 1) actor's selection; 2) establishment of openness degree for resource integration; 3) relationship management and development through consonance and resonance- act as enablers for the optimization of value co-creation.

Moreover, the last macro-area contributes to better explain how value co-creation can be transformed into viability.

As previously stated, resonance and harmonious interactions within systems foster value co-creation and lead each actor in the system to reach its own objectives and thus to gain survival (FC8, FC9). However, this variety of interests can produce problems of cognitive alignment between overall system's and actor's knowledge (FC10): so, Organ of governance (Oog) should reduce this cognitive and information gap by moving, as debated in the first section, from variability to variety (Piciocchi et al., 2009).

The role of strategic planning is essential for linking internal and external values, objectives and expectations in order to enable the cohesion between system's common goal and sub-systems and

supra-systems objectives and to increase the convergence of each entity toward joint value (Saviano et al., 2010).

In viable systems aimed at optimizing value co-creation, an effective governance should in particular: 1) manage complexity through multiple-decision-making; 2) enable co-learning through goals-objectives alignment.

Firstly, in context complex there is the need to adopt a dynamic model of governance based on multi-criteria (Barile and Polese, 2010a) intended to reach satisfactory equilibrium conditions by aligning system's and user's needs through continuous feedback. This multiple-decision making process is based on diffused power assets in which governance is shared with the relevant stakeholders. This systemic and democratic organizational layout should result in actor's involvement from *co-design* (Lusch and Vargo, 2014; Prahalad & Ramaswamy, 2004; Grönroos & Voima, 2012) to *co-delivery* (Bovaird & Loeffler 2012). The first is a phase preceding provision, in which actors are actively engaged through the development of a common value proposition and in the proposal of ideas for the design of a more effective and efficient offering. The latter refers, instead, to the participation of the most relevant stakeholders in service provision. Also in post-delivery actors should maintain their relationships with other systems.

Secondly, governance should pursue the cognitive alignment between system's and its supra-systems and sub-systems value and interests (objectives) toward the fulfilment of overall system viability (goal). In terms of VSA dichotomies, viable systems should try to create a coherent connection between what they are (structure-strategy) and how they behave (relationships with stakeholders-systems-tactics).

VSA introduces the concept of multi-level governance in which all the systems are encapsulated in an overall macro-system developing consonance, resonance and relationships based on trust, which can finally produce not only equifinality but also general well-being.

This governance lies on informal decision-making mechanisms and on user's participation (Agranoff and McGuire, 2003).

In line with the mediation between reductionism and holism, effective governance in viable systems should harmonize: 1) top-down guidelines and values (system's goal); 2) Bottom-up processes and values (single systems' objectives).

The achievement of final system viability depends on the capability of governance to foster co-creation and to ensure systemic equifinality through a constant process of mediation of stakeholder expectations and by following common objectives through synergic relationships (Golinelli, 2010; Barile, 2009) centred on democratic power, shared knowledge and trust (Piciocchi and Bassano, 2009) at every level of organizations.

In a diffused and systemic conception of governance, Oog creates business strategies and establishes system's goal together with the most relevant stakeholders in order to create from the beginning a common set of shared values in the whole system. In this way, the strategic direction is established democratically through the elaboration of a common definition of a value proposition which thus emerges from *in-use* interaction with stakeholders and *in-context* within a broader economic and social stakeholder network (Vargo and Lusch, 2008). However, the generation of ideas should give birth to a set of common values which should be translated in turn into concrete business actions.

Then, Oog should coordinate interactions to achieve *relational equilibrium* (Pellicano et al., 2017) and systemic resonance in order to ensure the necessary harmony between underlying strategies and overall system's relational equilibrium also by mediating between top-down (deliberate) and bottom-

up decisions (emerging). The result of the process should be the production of a diffused a cohesive corporate culture that pervades the entire system.

To control resonance in actions and to preserve the consistency between goal and objectives, Oog realizes the constant supervision of value co-creation through performance measurement and through the assessment of the realization of strategic dynamics as a whole (ex-ante and ex-post) by monitoring the concrete actions realized by actors.

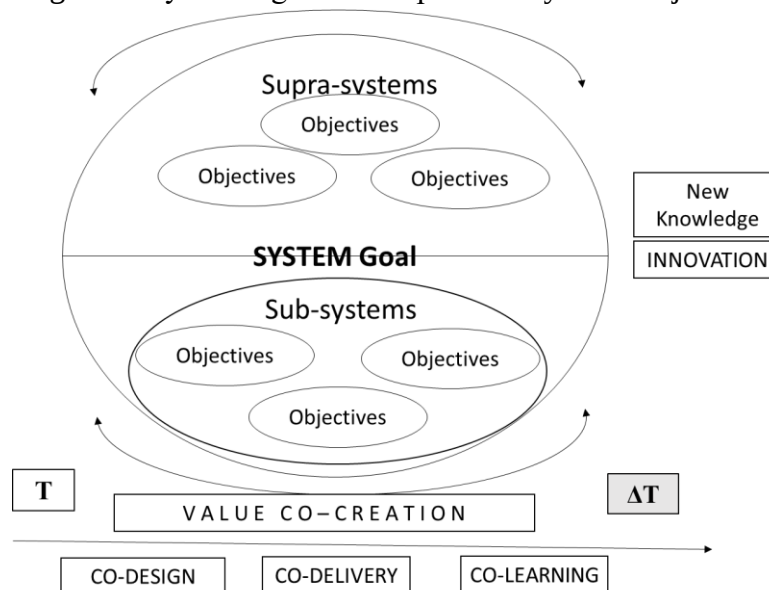
Decision-making should be intended as a circular process, aimed at ensuring continuously ensuring the link between strategy and tactic, consonance and resonance in order to develop proactive behavior to challenge complexity (Polese et al., 2016). As seen before with relationship development, as knowledge increases, trust and awareness and relationships co- evolve.

VSA concept of system's constant adaption and transformation to stakeholder's needs and knowledge translates into S-D logic concept of *co-learning*, a continuous learning process resulting in the collective production of new knowledge deriving from the combination of single member's knowledge in value co-creation processes (Tommasetti et al., 2017). In this way, also the creation of new values, interpretive schemes and institutions is fostered.

Since this process is circular, as figure 8 shows, as this new knowledge enters into the system it is reelaborated and then transformed into creativity (Vicari and Troilo, 1999) leading to service innovation and acting as the basis for the reimplementation of the process (in terms of creation of new services, values or the establishment of new strategic relationships). This guarantees the attainment of unique and unrepeatable know -how and competitive advantage.

According to the integrated perspective proposed (VSA and S-D logic) diffused decision- making centered on synergic collaboration lead to the general improvement of system's well-being in terms of: 1) harmonic and resonant relationships which generate co- learning processes, new knowledge and service innovation; 2) value co- creation which produces co- evolution and competitiveness ensuring viability.

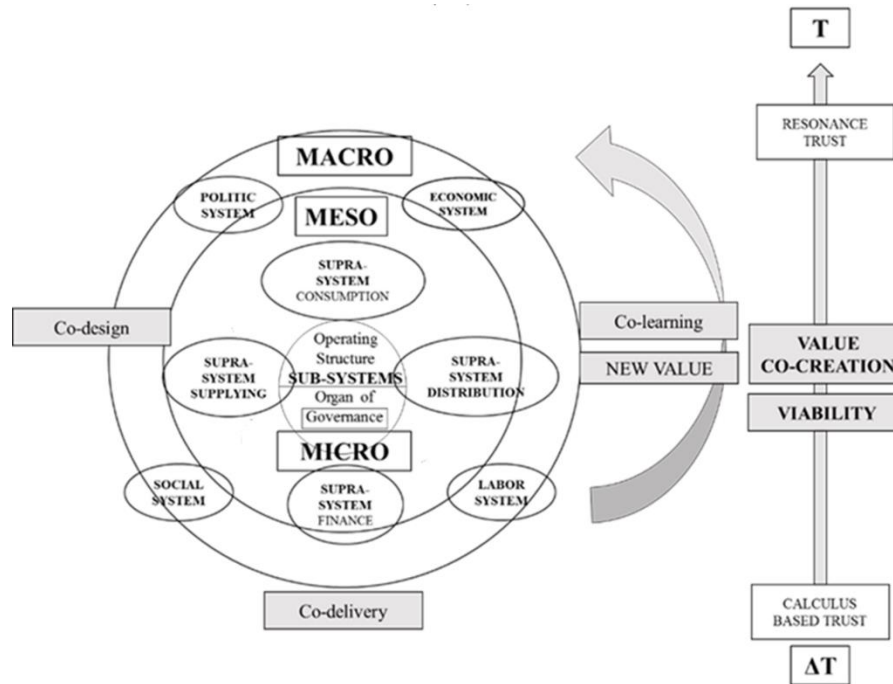
Fig.8- Fit system's goal and supra/sub- systems objectives



In conclusion, the four dimensions herein identified can be intended as four strategic steps for managing viable ecosystems and as four drivers for viable value co-creation in a unified VSA+SDL

perspective. In particular, the realization of the four stages can be intended as an evolutionary path gradually leading to the qualification of viable ecosystems main features (see figure 9). Therefore, in an attempt to attain the final goal of viability through value co-creation, ecosystem organizations should: 1) strategically select their stakeholders on the basis of relevance; 2) open their flexible boundaries depending on the kind of stakeholders; 3) manage and develop synergic relationships through consonance and resonance optimization; 4) align overall system's goals and supra/sub-systems finalities through Oog's cordination fostering mutual learning.

Fig. 9 – The key elements of VSA-S-D logic integrated view



5. Reconceptualizing entrepreneurial intention and innovation in viable service ecosystems

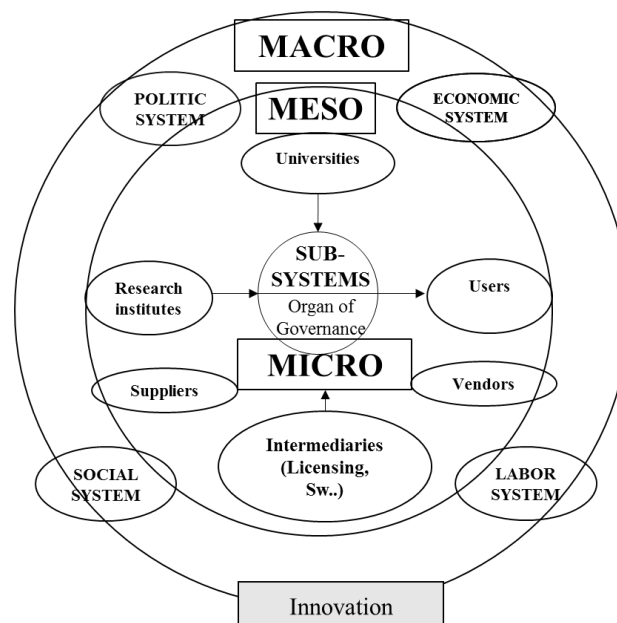
The four drivers identified in the elaboration of the integrated model between VSA and S-D logic can be particularly relevant for observing entrepreneurial intention (Bird, 1988; and innovation in service ecosystems (Lusch and Numbisan 2015). These IT based service systems, in fact, lie in a particularly turbulent environment and so should search for viability and competitiveness through proactive behavior by trying to intercept and prevent market alterations and through continuous redefinition and adaptations to these changes (due for example to new user's preferences, to new technological development by competitors or by advancement in technology itself). Moreover, in this sector, the produced outcome is realized in the form of the production of new knowledge, so an intangible resource which is produced from the ability to transform knowledge inputs into creativity. Therefore, in innovation ecosystem, two of viable system's features identified above are more relevant than in other sectors: 1) context complexity; 2) the knowledge dimension, which is at the same time the result of resources exchanges and the main goal of the whole system. It follows that in this kind of systems, the circularity in value co-creation processes (the virtuous circle leading from input to the creation of new knowledge) is emphasized (Chesbrough, 2006).

What is more, the outcome of innovation ecosystems is halfway between the attainment of economic goals (the realization of innovative product to sell, a software, a platform, etc.) and technologic development enhancing general social well- being (Jackson, 2011).

The integrated framework herein proposed allows at identifying the kind of actors in innovation service ecosystems (see figure 10). In this context, the most relevant stakeholders of a system (for example, an organization producing technology platform) can include in the first place the human capital providing the right skills to create innovative products, in the form of existing employees (sub-systems), potential employees (labor market) and students or researchers from universities. In the second place, innovation systems should establish relationships with institutional entities such as universities, research institutes and other organizations, which can be considered as strategic partners providing insights for new technological developments. In addition, also government should be taken into account as a suprasystem releasing both influence (tax or regulations) and criticality (such as investments in R&D). The economic subjects involved in innovation ecosystems, instead, are investors, suppliers, final users and intermediaries (Pittaway and Autio, 2015; Brousseau and Penard, 2007; Thomas et al., 2014), which add value in the form of complementary innovations (criticality) but at the same time can be priority stakeholders releasing license for the implementation of new software (influence). Complementary third-party innovations can be established also with research companies or with universities (Lindner, 2003).

According to stakeholder's relevance, innovation service ecosystems should be able to retain particularly influent subjects providing critical resources (core competencies, creativity, knowledge) such as consultants or employees with high skills and experience. Stakeholders with critical resources but exercising low influence (such as university researchers or students or potential employees) should be monitored; even if they cannot directly influence organization's behavior, their influence should be supervised in order to allow firms to not lose their bargaining power. In addition, in technology sector, suppliers (almost regarding some kind of tangible components) can be considered interchangeable suprasystems since they do not own bargaining power.

Fig. 10- Service innovation ecosystem's actors



The existence of indirect stakeholders with high influence and criticality makes decision-making in service ecosystems innovation more difficult. In this field, entrepreneurship intention should be evaluated according to different dimensions. Beyond selecting actors owning new resources in line with prevision of future technological development (Lusch et al., 2008), Organ of governance should also try to enable the virtuous circle of creation of new knowledge within the existing system through the diffusion of a cohesive corporate culture, of sense of belonging and through provision of incentives.

Additionally, also relationships (internal or external) should be controlled in order to detect possible problems in service exchanges and in value-in-use through performance measurement systems, through reward mechanisms, quality and risk management (Roth and Menor, 2003).

6. Concluding remarks

The work has analysed the commonalities and the differences between Service-Dominant logic (S-D logic) and Viable systems approach (VSA) in order to prepare the ground for a combination of the two framework. In particular, VSA has been defined as a meta-model permitting a holistic rereading of value co-creation. Also the key concept of VSA, viability, can include the notion of value co-creation, which represents in this way a lever for ensuring system's survival.

The main dimensions of both frameworks has been firstly identified and then matched for the identification of four drivers enabling viable value co-creation: 1) actor's selection and identification; 2) establishment of systemic boundaries; 3) strategies for relationships development; 4) decision-making and fit goals-objectives alignment. In an all-encompassing and multi-stakeholder view, these 4 macro-areas could also represent some strategies for a better systemic management of service delivery and for fostering the emersion of viability and value co-creation in the long run.

The integration of VSA assumptions with S-D logic in a holistic system view of value co-creation entails two kinds of implications: 1) theoretical, deriving from the insights offered by the contextualization of S-D logic concepts into VSA; 2) practical, connected to the concrete identification of four drivers (and management strategies) for fostering value co-creation.

From a theoretical point of view, the proposal of four levers for encouraging effective value co-creation and viability can enhance present understanding of value co-creation itself and could offer some insights into the real nature of collaboration by identifying the actors involved, the kind of resources exchanged and the relational degree (Polese and Di Nauta 2013).

Moreover, clarifying the meaning and the antecedents of such a complex concept in a system view can help to prevent value co-creation reductionist interpretation (Leroy et al., 2013). So, VSA perspective mediates between a holistic (general enabling strategies) and reductionistic (identification of actors and resources) conceptualization of value co-creation in complex context. In this way, value co-creation can be translated into practice and managerial implications of S-D logic, not fully addressed in the theory itself, can be identified (Pels et al., 2013)

Regarding managerial standpoint, advancing the enablers for value co-creation can aid managers to better elaborate strategies for stimulating actor's engagement and for establishing resonant relationships in order to challenge complexity and user's demands variability.

What is more, pinpointing the criteria for selecting stakeholders and organizational boundaries can contribute to the elaboration of the adequate strategies classify stakeholders and to manage the relationships with them, in order to optimize knowledge exchanges and information flows in the

whole process. The systemic exploration of value co-creation process from the early could be helpful in proposing strategies for guiding decision-makers in undertaking more effective choices and management of resources stages (Barile and Saviano, 2010).

The framework can guide managers to better understand how value co-creation can be planned, managed, implemented and then assessed at each stage. At the same time, decision-makers are encouraged to elaborate new strategies and practical measures to stimulate the involvement of users in each stage of service provision and to supervise the emersion of co-creation in progress by undertaking actions for service recovery and to increase service effectiveness. The recognition of the four macro-areas can also aid organizations in developing strategies for selecting actors, for managing relationships and for assessing user's relational degree.

The main limitation of this work is its theoretical nature. However, the study can represent a starting point for further empirical research, since it suggests interesting research areas for the development of integrated framework between services marketing theories and systemic theories in general.

The categorization of the 4 drivers for viable value co-creation provides future research with a theoretical basis for investigating co-creation practices and of how these can vary depending on the kind of stakeholder, on the resources exchanged and on the relational degree. Users can be segmented based on their involvement, relational degree and on the contributions provided in each phase of co-creation.

The study provides suggestions for the reinterpretation of current trends of services marketing in the light of system theory and thus establishes a research agenda for further research aimed at analyzing the mechanisms and the activities involved in the joint production of value in service delivery.

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