INTRODUCTION

Value co-creation is one of the cornerstones of the S-D logic (Vargo and Lusch 2004, 2006, 2010). On discussing value co-creation it is necessary to acknowledge that:

1. There are different levels at which value co-creation can occur. These are: co-conception of idea, co-design, co-production, co-promotion, co-pricing, co-distribution, co-consumption, co-maintenance, co-disposal, co-outsourcing, co-creation of meaning, and co-experiencing (Frow et al 2010).
2. Actors have different understandings of the nature of interaction required in the value co-creation process (Vargo and Lusch 2010).

This paper will focus on the second aspect: the nature of interaction required in the value co-creation process. Within the marketing and strategy literature considerable attention has been given to value co-creation dating back the pioneering work by Prahalad and Ramaswamy (2000). Alternatively, the Configuration theory, structuration theory, effectuation theory and governance theory are a set of organizational theories that can be drawn on to explain the nature of collaboration within dyadic and network interactions. Specifically, the paper will adopt a particular System Theory perspective known as the Viable Systems Approach (Golinelli, 2000, 2005, 2009; Barile, 2000; 2008; AA.VV., 2011) to integrate these organizational theories. The aim is to look at how, combined, these theories contribute to the development of the S-D logic.

The paper starts by addressing the shift within the literature from value creation to value co-creation and the complexity associated to the co-creation process. Next, the paper’s interpretative lens, the Viable System Approach, is introduced. Third, the organizational theory (Configuration theory, Structuration theory, Effectuation theory and Governance theory) that look at issues of collaboration are briefly discussed and linked to the topic of value co-creation. Then the four
organizational theories are integrated with the aid of the Viable System Approach. The paper closes with a set of conclusions and suggestions for future research.

VALUE CO-CREATION

From Value Creation to Value Co-Creation

Although a wider variety of business assets are now being taken into account when addressing the topic of value creation, it is increasingly recognised that a purely internal understanding of value creation, i.e., a firm-centred approach, is a restricted interpretation of value creation process. Rather, it is apparent that value creation must be seen in terms of business models and theories that incorporate the interconnectedness (relationships, interactions and networks) that characterise current business. Accordingly, a participatory approach has become more prominent in studies of value creation (Ravald and Grönroos, 1996). This approach emphasises that enterprises do not create value in isolation (Hakansson and Snehota 1989), but engage in cooperative value-creation processes that involve multiple actors and resources (Prahalad and Ramaswamy 2004).

A central actor in the value-creation processes is the customer (Normann and Ramirez, 1994). However, although customers are the most important external actors in value creation, they are not the only ones. Gummesson (2008) has recently introduced the concept of balanced centricity in an attempt to reduce what he perceives as an over-emphasis on ‘customer orientation’ in favour of appropriate recognition of the role of other actors involved in the value co-creation process.

Value Co-Creation and Complexity

The term ‘co-creation of value’ has emerged prominently in the context of Service Dominant logic (S-D Logic) (Vargo and Lusch 2004, 2006; Lush, Vargo and O’Brien 2007) to describe a new approach to business interaction involving producers, consumers as well as other ‘resource integrators’. The term ‘value co-creation’ within service research, hence, has been introduced to describe a new paradigm of business interaction as offering and experiencing service, in which service is offered and exchanged between producers and customers, rather than goods and services, being exchanged as was the case in the prevailing goods-dominant logic (G-D Logic) between producers and customers.
As discussed by Vargo (2009) "value co-creation is a complex process involving the integration of resources from numerous sources in unique ways" (p.378). Adopting the S-D Logic concept of co-creation has deep implications:

First, the co-creation of value implies an active role for customers/consumers who must be sufficiently skilled and aware to assess the benefits and sacrifices associated with an offer proposition or a relationship (Grönroos 1997, 2000). Moreover, customers must be capable of searching for information, evaluating available options, and deciding whether to buy a particular product or service. Finally, it can be noted how co-creation is a process characterized by an emotional involvement of customers/consumers who ought to play an active experiential role for their choice in co-producing his or her needs interactively with the provider.

Second, communication becomes a crucial element of value co-creation because it facilitates the flow of information and the transfer of competencies (Ballantyne and Varey 2006). In this regard, advances in information and communication technology (ICT) - such as the internet, search engines, blogs, e-marketplaces, personal webpages, virtual communities, social networks and so on - enable new interaction and co-creation mechanisms.

Third, a holistic view to value co-creation becomes necessary both at the individual customer level (Prahalad and Ramaswamy 2004) as well as within supply chains and value chain management systems (Flint and Mentzer 2006). Thus, new theory based on dyads and networks is needed, whereby all parties uniquely integrate multiple resources for their own benefit and for the benefit of others (Vargo 2009).

From the above characterization it can be argued that co-creation is a complex issue (Polese, 2009). This is due to the fact that:

- Co-creation involves many actors, each of them with its own perspective;
- Co-creation is a process characterized by high dynamism;
- Each actor involved in co-creation exchanges has its own perspective and goals/objectives.

THE VIABLE SYSTEM APPROACH (vSA)

The Viable System Approach and Complexity

As markets and marketing become increasingly complex, it is likely that complexity theory and systems theory will play more prominent roles in future marketing developments (Spohrer et al,
2008). Within these theories there is one, the Viable Systems Approach (vSA), that characterizes complex issues as:
- Systems articulating many actors (entities),
- Systems which are dynamic,
- Entities characterized by various goals/objectives (Golinelli and Barile, 2006).

These concepts, indeed, seem to be characterizing value co-creation as well, hence the contribute of vSA seems to be particularly promising and hopefully fruitful.

In the past decade, the Italian academic circles have developed a systems-based approach to business theory: the Viable System Approach (vSA), which is a multidisciplinary approach linked with network analysis and general systems theory, strongly rooted in system thinking dated back to von Bertalanffy (1968), Parsons (1971) and Beer (1972, 1975); vSA focuses on the analysis of relationships among socio-economic actors in search of viable interacting conditions (Golinelli, 2000, 2005; Golinelli et al., 2001; Barile, 2000). In doing so, vSA enables an analysis to be made of the relationships that exist among internal components of a system (i.e. individual, customer, business, parnter, network or actor, in general), as well as an analysis of the relationships between the system itself with other systemic actors in their environment.

According to vSA, systems (or rather socio-economic actors) develop as an open system that is characterised by: i) many components (both tangible and intangible); ii) interdependence and communication among these components; iii) activation of these relationships in order to pursue the system’s goal (AA.VV., 2011).

Despite its solid theoretical foundations, the vSA is not strictly a theory; rather, it represents a methodological approach that is useful for the comprehenson of complex phenomena involving individuals, communities, business, and society in general (Golinelli et al, 2002; Barile and Polese, 2010). But the fact that it addresses open systems, tries to deal with many involved actors and with a mutual and reciprocal satisfaction in order to reach equilibrated conditions seems to lead promisingly to the analysis of co-creation which, indeed, is also characterized by the same traits.

Apart from the vSA System theory has lead to diverse spinoffs (e.g. contingency theory -Burns and Stalker 1961, Lawrence and Lorsch 1967-; population-ecology view of organizations -Aldrich 1979-; organizational ecology approach -Boulding 1956, 1981; amongst others).
Given that the vSA allows to address topics associated to complexity, this paper adopts the vSA as a lens to integrate the organizational theory studies on the value co-creation process and to analyse these theories’ contribution to the development of the S-D logic.

The Viable System Approach Fundamental Concepts and Value Co-creation

The vSA has developed ten Fundamental Concepts (FC). The discussion of all of the ten FC lies outside the scope of this paper. However, the subset of vSA Fundamental Concepts, associated to understanding value co-creation, is discussed:

FC 4: Open systems and system boundaries: Systems are open to connection with other systems for the exchange of resources; within systems boundaries not only property resources are valorized but also resources owned by other systems (Golinelli et al, 2001). A system boundary is a flexible concept within which all the activities and resources needed for the system’s dynamic evolution are included (Beer 1975). In other words, according to the vSA nothing happens in isolation, and the exchange of information and service is fundamental in the system’s dynamic process.

FC 5: Autopoiesis, homeostasis, and self-regulation: In a complex environment, each system is stimulated to become an ‘autopoietic’ (i.e., self-organising) system in order to reach a ‘common finality (Maturana and Varela 1975). A system is able to maintain a state of internal equilibrium through its ability to adapt (Hannan and Freeman 1977) through self-regulation processes capable of maintaining the system balanced with external conditions. According to the notion of system ‘homeostasis’, a system maintains its own specific identity by not modifying its internal features excessively in an attempt to achieve internal and external equilibrium (Beer 1975). Basically this means that every system is autopoietic, and is thus able to generate new internal conditions (through self-organization) capable of promoting satisfactory behavior with relation with other systems (Barile, 2000); it is hence self-organising as it continuously aligns internal and external complexity (Barile and Saviano, 2000).

FC 7: Consonance and resonance: The term ‘consonance’ refers to the potential compatibility between the elements of a system; however, for the system’s survival real harmony needs to be achieved (i.e., resonance). Resonance refers to elements operating in a distinctive fashion for a
single purpose (Nigro and Bassano 2003). Thus resonance is harmonious systemic interaction, whereas consonance is structural (Barile 2008). In other words, consonant relationships refer to the static view (structure) where you could just evaluate the chances of a positive and harmonic relation, while resonant relationships refer to a dynamic view (systemic) where you could evaluate concrete and effective positive and harmonic interactions.

**FC 9: Adaptation and relationship development**: Firms are able to compete and survive in a particular context if they engage in dynamic processes of change (Golinelli 2000, 2010; Barile 2008; Saviano and Berardi 2009). Competitive enterprise behaviour requires the ability to identify and manage functions and relationships, establish communication channels, organise information flow, and rationalise and harmonise enterprise development with the environment (Barile and Gatti 2007; Christopher 2007). The dynamics of viable systems require a continuous alignment between internal potentials and external expectations. Given that we can assume that VS&A maybe useful when analysing co-creation exchanges since these are strongly related to open systems properties (see the above mentioned FC4), based upon dynamic re-adjustments of an actor’s (customer, partner, suppliers) internal conditions in order to align them to external (other actors) expectations (see FC5 and FC9) looking for a satisfactory general harmony as a prerequisite of successful co-creation (see FC7 and the concepts of consonance and resonance). The synthesis of these comments are summarized in Table 1.

Insert Table 1 about here

There are several Organization theories that may represent complementary scientific suggestion supportive of a better understanding of co-creation processes. These are presented in the next section.

**ORGANIZATIONAL THEORIES AND THE CO-CREATION PROCESSES**

*Configuration theory, structuration theory, effectuation theory and governance theory* are a set of organizational theories that can be drawn on to explain the nature of collaboration within dyadic and network interactions. The VS&A argues that isolated, each of them will only provide a
reductionistic view. The VSAs provide the means to integrate them providing a holistic perspective. The paper argues that, together, they help understand the co-creation processes.

In this section we review these four organisational theories. First, configuration theory looks at the different ways organizations relate to their context highlighting the need of a configurational fit to establish constructive dialogues and interactions. Second, structuration theory provides useful insight into the nature of the learning in the collaboration processes that link structure to processes. Next, effectuation theory suggests an organisational logic for collaborative processes. Finally, governance theory is drawn on to explain the mechanisms that lead to coordination and co-operation within the dyads and networks. We now discuss each of these alternative theoretical lenses with respect to their relevance to understanding the co-creation process as described by the S-D logic. Table 2 provides a summary of each organizational theory with specific reference with the elements contributing to the service exchange comprehension.

Configuration theory


Configuration theory builds on the notion of enactment (Weick, 1969) and strategic choice (Child, 1972).

- Enactment describes the process by which people create events and structures, and set them in action (Weick, 1988). In other words, the notion of enactment relates to how organizations are structured and the way they respond to their environment, through the agency of their people.

- Child (1972) considers the role of strategic choice in an organisation’s environment, structure, and performance. He urges consideration of both external (e.g. technology, competition) and internal factors (e.g. size, resources), with particular consideration of the organisation’s people and the choices made with relation to strategy.
The configuration approach focuses on the role of managers and managerial practices. Configuration theory adopts a holistic point of view, it explains how managers collaboratively approach the value creation task, and recognizes that both internal and external resources influence that process allowing for multiple responses to the same environment. The paper argues that configuration theory: (1) offers useful insight into the organizational process of resource integration related to the co-creation of value, and (2) recognizes that organizations relate to their context differently highlighting the need of a configurational fit to establish constructive dialogues and interactions.

**Structuration theory**

Giddens (1984) tries to explain the learning processes associated with collaboration which he termed ‘structuration’. To study this process he focuses on two aspects of an organisation: the availability of resources and the rules governing access to resources embedded within a particular social system (e.g. an organization, network or an industry). According to Giddens (1984), structuration is therefore a process in which resource-related rules and the resources themselves interact.

Within the marketing discipline, Peters, Gassenheimer and Johnston (2009) explore the application of structuration theory to help understand the development of value creation capabilities. They suggest structuration theory provides a way of explaining the relationship between organizational and individual learning and how a firm improves its value creation capabilities. Peters et al (2009) provide insight into how organizational efforts enhance customer learning by linking structure and process together in a meaningful and useful way. In doing so it deals with the co-creation and maintenance of ideas and structures as well as with change and continuity, and processes of collaboration and co-creation of value.

**Effectuation theory**

Effectuation inverts the fundamental principles, solution processes, and the overall logic of predictive rationality of organisational behaviour (Sarasvathy, 2001). Thus, it is more closely aligned to entrepreneurial behaviour rather than established corporate behaviour. As suggested by Read, Dew and Sarasvathy (2009), by focusing on operant resources, co-creation of value, and relationships the theory offers important insight in the collaborations associated with the FPs of
the S-D logic. They suggest that fundamental to the nature of collaborations is the idea that no one party controls or needs to control the outcomes of the interactions that lead to value co-creation. Without the firm being in control, the traditional predictive rationale for organisational behaviour (where the task is to predict and adapt to changes in the operating environment) no longer hold. The effectual view considers the environment endogenous to the actions of collaborators. The organisational process is then one of collaboration, through commitments with a network of partners, investor, customers and other stakeholders. The effectuation logic that guides these iterative and interactive processes, results in value co-creation.

**Governance theory**
Governance refers to the formal and informal rules of exchange and the initiation, maintenance, and termination of relationship between two parties. Governance forms consist of market, hierarchical, and relational approaches, whereby market governance is associated with discrete types of exchange, hierarchical or unilateral governance gives the right of one party to impose conditions on another and relational or bilateral governance means a more open-ended relationship (Heide, 1994).

Building on Heide’s (1994) typology of governance mechanisms in channels, Ghosh and John (1999) extend the traditional transaction cost analysis framework. They address marketing strategy decisions, especially with regard to strategies grounded in cooperative relationships and investments with supply chain partners and end-customers. The investment by the end-customer is important in determining whether an organization decides to adopt an open or closed (proprietary) standard. They suggest that partners in a relationship devise governance forms to safeguard the value of their assets, in order to maximize co-creation of value. The paper argues that useful insight from the governance theory can be gained on the mechanisms that lead to coordination and co-operation.

**ORGANIZATIONAL THEORIES CONTRIBUTE TO VALUE CO-CREATION**
The paper argues that the four organizational theories presented shed new insights on the considerable complexities of the collaborative value co-creation process. They show that relationships between entities (that engage in collaborative activities) share four common features:
- First, collaboration implies that the relationships are between entities that work together for a common aim (configuration and effectuation theory).
- Second, collaborative relationships share resources which may allow outcomes that would not be possible without such integration (structuration and governance theory).
- Third, these collaborations are voluntary with parties recognizing the benefit, either to themselves or ‘the greater good’ in doing so (configuration, effectuation and governance theory). If the benefit is not evident then collaborative activity is unlikely.
- Fourth, entities engaging in collaborative relationships are likely to be autonomous. By this we mean entities involved in collaborative relationships require some autonomy to make decisions about the extent to which they wish to engage in co-creative activities. For example, in a B2B context, collaborative relationships are likely to fail where individuals are not able to make decisions about the extent to which resources are shared. Governance, structuration and effectuation theory explains how autonomous entities are able to operate within these relationships.

Each of the theoretical approaches offers a lens on the nature of resource integration in value-creating networks. All are directed at understanding aggregate organisational and individual managerial practices affecting the availability and disposition of resources. Configuration theory offers an insight into the manner in which resources are structured. Structuration theory has an outcome focus, i.e., resources are directed at organisational and individual learning. Effectuation theory focuses on value creating behaviours, and offers insight into how managerial practices create value. Finally, governance theory is concerned with the effect of organisational forms and inter-personal dynamics in the exchange process. We argue that all four theories highlight the complex, cooperative and collaborative nature of value creation, whereby multiple parties engage over time within formal and informal structures to meet mutual goals (see Table 3).

INTEGRATING THE THEORETICAL PERSPECTIVES AND SUGGESTIONS FOR FUTURE RESEARCH
Adopting a VsA allows bringing together the configurations, structuration, effectuation and governance theories to help understand how autonomous entities operate within relationships
that co-create value with an holistic view of co-creation and service exchange (Polese et al, 2009) capable of valorizing the necessary vertical deepening and views of the observed phenomenon.

Insert Figure 1 about here

Figure 1 graphically shows how adopting the interpretation key supplied by VSA thorough its fundamental concepts it is possible to capture a unifying view of the organization theories support in the understanding of value co-creation and this is particularly useful to underpin the value co-creation process. VSA fundamental concepts relate to the organizational theories and more importantly they allow to integrate them directing to the interpretation of co-creation main issues.

We are convinced that an important contribute for the underpinning of value co-creation processes and exchanges may be provided by the VSA since it provides a holistic approach to value co-creation and, simultaneously, a reductionistic view of the same phenomenon supported by the cited organization theories.

REFERENCES


Spohrer, J., Vargo, S.L., Maglio, P.P, Caswell, N. (2008), The service system is the basic abstraction of service science, HICSS Conference.


<table>
<thead>
<tr>
<th>VSA fundamental concepts</th>
<th>Implications for value co-creation in service exchange</th>
<th>Value co-creation traits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC 4: Open systems and systems boundaries</td>
<td>Modern marketing theory recognises that enterprises do not create value in isolation. There is now appropriate recognition of the roles played by multiple actors and interested parties in various value co-creation processes within a customer balanced centricity. The notion of co-creation is inherently associated with vanishing boundaries between actors within markets.</td>
<td>Many actors, each of them with its own perspective; Various goals/objectives, some of them difficulty measurable/evaluatable, the emotional engagement of customers;</td>
</tr>
<tr>
<td>FC 5: Autopoiesis, homeostasis, and self-regulation</td>
<td>In pursuing its ultimate goals, every business requires the internal capacity to evolve and self-regulate in order to adapt to external changes and survive in the long term. Businesses constantly strive to meet market requirements by changing their value propositions.</td>
<td>Active experiential role for the customer. The the customer co-designing products and services.</td>
</tr>
<tr>
<td>FC 7: Consonance and resonance</td>
<td>Consonance (potential compatibility between systems elements) and resonance (harmonious interaction among actors in service interactions) well represent a model describing ideal and rewarding co-creation exchanges among actors of service experiences.</td>
<td>customer choosing and co-producing his or her needs interactively with the provider;</td>
</tr>
<tr>
<td>FC 9: Adaptation and relationship development</td>
<td>Service systems seek to establish positive and harmonious interactions with other systems to strengthen value co-creation processes and experiences. Positive interactions between providers and customers are dynamic and always changing as subjective judgments vary with time.</td>
<td>High dynamism; the transfer of (some aspects of) labour to the customer through self-service logistics;</td>
</tr>
</tbody>
</table>
### Table 2: An Organizational Theories’ Comparison with focus on the Service exchange

<table>
<thead>
<tr>
<th>Theoretical focus:</th>
<th>Configuration theory</th>
<th>Structuration theory</th>
<th>Effectuation theory</th>
<th>Governance theory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enactment/Strategic choice</td>
<td>Linkage of structure and processes</td>
<td>Non-directive and entrepreneurial organisational processes</td>
<td>Formal and informal rules of exchange.</td>
</tr>
<tr>
<td></td>
<td>Agency of people</td>
<td>Availability of resources and rules governing access to resources</td>
<td>Stakeholder acquisition and orchestration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple forces</td>
<td>Organisational and individual learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature and role of resources:</td>
<td>Both internal and external</td>
<td>Authoritative / power relationship-oriented and economic</td>
<td>Internal and external, Intangible.</td>
<td>Networks, relationships and interactions i.e. social, mediated by power.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interact subject to rules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of value creation:</td>
<td>Involvement of multiple parties internal and external to the organization</td>
<td>Improvement of capabilities and processes via organizational learning</td>
<td>Iterative and interactive processes of stakeholder acquisition and orchestration</td>
<td>Cooperation and collaboration.</td>
</tr>
<tr>
<td></td>
<td>Collaboration</td>
<td>Mutual learning</td>
<td>Commitment</td>
<td>Norms and relationships</td>
</tr>
<tr>
<td>Value created through:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 3: Implications of Organization theories upon value co-creation

<table>
<thead>
<tr>
<th>Value co-creation traits</th>
<th>Organization theories</th>
<th>Organization theories Contribute to value co-creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many actors, each of them with its own perspective; Various goals/objectives, some of them difficulty measurable/evaluable, the emotional engagement of customers;</td>
<td>Configuration theory</td>
<td>Flexible and vanishing borders between actors.</td>
</tr>
<tr>
<td>active experiential role for the customer. The the customer co-designing products and services.</td>
<td>Effectuation theory</td>
<td>Need to manage and satisfy stakeholders for their key role in value co-creation.</td>
</tr>
<tr>
<td>active experiential role for the customer. The the customer co-designing products and services.</td>
<td>Governance Theory</td>
<td>Network organizational model.</td>
</tr>
<tr>
<td>customer choosing and co-producing his or her needs interactively with the provider;</td>
<td>Configuration theory</td>
<td>Continuous internal re-organization. Dynamic behavior in changing contexts.</td>
</tr>
<tr>
<td>customer choosing and co-producing his or her needs interactively with the provider;</td>
<td>Structuration theory</td>
<td>Knowledge and learning as key element of satisfactory value co-creation exchanges.</td>
</tr>
<tr>
<td>customer choosing and co-producing his or her needs interactively with the provider;</td>
<td>Configuration theory</td>
<td>Multi-actors participation to value exchange. Both internal and external.</td>
</tr>
<tr>
<td>High dynamism; the transfer of (some aspects of) labour to the customer through self-service logistics;</td>
<td>Effectuation theory</td>
<td>Need to manage and satisfy stakeholders for their key role in value co-creation.</td>
</tr>
<tr>
<td>High dynamism; the transfer of (some aspects of) labour to the customer through self-service logistics;</td>
<td>Governance Theory</td>
<td>External relationships management.</td>
</tr>
<tr>
<td>High dynamism; the transfer of (some aspects of) labour to the customer through self-service logistics;</td>
<td>Effectuation theory</td>
<td>Iterative mechanisms of stakeholders acquisition and orchestration</td>
</tr>
<tr>
<td>High dynamism; the transfer of (some aspects of) labour to the customer through self-service logistics;</td>
<td>Structuration theory</td>
<td>Organization improvement based upon mutual learning</td>
</tr>
</tbody>
</table>
Figure 1: The unifying view through VSA upon value co-creation

- Governance theory
- Effectuation theory
- Structuration theory
- Configuration theory

Value Co-creation