

AMS Conceptual Research Proposal

Title: Ecosystem Alignment around Customers

Abstract:

This paper builds on current service and marketing literature on the emerging ecosystem perspective and the key role of customers to conceptualize actor alignment. Setting the ecosystem nexus as the primary beneficiary, the customer, the study situates the customer's value-creating network of relations within the broader, often-indirect influence of actors at multiple ecosystem levels. Ecosystem actor alignment is then conceptualized as a multi-dimensional framework based on an integrative review of customer ecosystems and ecosystem alignment. The framework elucidates the dimensionality as well as the potential mechanisms and facilitators of intra/inter-actor alignment, enabling a detailed multi-dimensional assessment of alignment-misalignment in ecosystems. The paper is a step to providing structure and granularity to diverse concepts and perspectives related to the ubiquitous term of alignment. It helps researchers and practitioners to clarify and apply the concept to actor dynamics enabling diagnostics of customer and ecosystem alignment/misalignments, crucial for adaptability and change.

Keywords:

ecosystem alignment, ecosystem actors, service-dominant logic, customer-dominant logic, customer value creation

Problematization / justification for the topic

Ecosystems are often emerging and in flux, complex and destabilized by changes in environments, markets and consumer behavior (e.g. Skylar et al. 2019). Marketing and service research highlight the inter-relatedness and embeddedness of value co-creating actors in ecosystems (Vargo & Lusch, 2016; Wieland et al. 2012). However, ecosystem actors are not always adequately aligned due to the multiplicity of actors with different priorities and points of view (e.g. Strandvik et al. 2012) – customers, providers, suppliers, developers, etc. This challenges decision-makers who are charged with aligning the demands across different levels and interdependent actors (Frow et al. 2019). Moreover, even though the imperative of *aligning with customers* is ubiquitous in marketing, *alignment* has not been formally developed, and specifically around the primacy of the customer (Usley et al. 2009 - on Peter Drucker) - the main service beneficiary and determinant of value (Heinonen et al. 2010; Vargo and Lusch 2008, 2016). Alignment of actors has been described as a state of harmony (Polese et al. 2017) or resonance (Barile et al. 2016), and is used, often implicitly, in relation to value: for e.g., the alignment of resources (e.g. Wernerfelt 1984), of institutional arrangements (Vargo and Lusch 2016), of intentionality and purposes (e.g. Taillard et al. 2016), and of processes and activities (e.g. Grönroos and Helle 2010; Payne et al. 2008). Still, alignment is not sufficiently understood as a concept, and there is much potential to consolidate disparate research into a dynamic characterization of actor relations in ecosystems. An in-depth understanding of actor alignment, specifically customer alignment, opens the door to new opportunities for convergence around customers and value creation in ecosystems.

Positioning and Literature Review

This paper builds on current service and marketing literature related to the emerging ecosystem perspective (e.g. Adner 2017; Vargo et al. 2017) and the key role of customers (Heinonen et al. 2010). A *customer* represents an individual or a collective (e.g. *customer unit* - Voima et al. 2011;

customer network - Čaić et al. 2019). The customer determines the value subjectively within networks (Čaić et al. 2019; Heinonen et al. 2010; Vargo and Lusch 2008, 2016), which can be collectively denoted as the *customer ecosystem* – “a system of actors and elements related to the customer that is relevant in a specific service” (Voima et al. 2011, p. 1015). This can be contrasted to *service ecosystems* which are defined as “a set of actors that contribute to the user value proposition of a focal product or service” (Kapoor 2018, p.10). While service ecosystems delimit a set of actors contributing to a central VP or offering (Adner 2017; Jacobides et al. 2018; Kapoor 2018; Vargo and Lusch 2011), customer ecosystems represent the customer and the set of actors pertinent to the actualization of customer value (Holmqvist et al. 2020; Heinonen and Strandvik 2018). The actors, resources and processes can be quite different: e.g., the customer ecosystem may include competing offers, other services and groups of actors falling outside the scope of the focal service offering; whereas the service ecosystem view may include actors such as suppliers and legislators falling outside the purview of the customer. We reconcile this dichotomy with a more general ecosystem view (actor-to-actor – Vargo and Lusch 2011; Wieland et al. 2012) placing customer ecosystems within the wider service and societal context; this situates the customer’s value-creating network of relations within the broader, often-indirect influence of actors at multiple ecosystem levels (e.g. Gummesson and Polese 2009). Thus, we define the nexus of an ecosystem as the customer (Heinonen et al. 2010), and we espouse an inclusive approach to ecosystem alignment encompassing actors with both direct & indirect influence on customer value.

Research Methodology

We conducted an integrative literature review (Torraco 2005) with two searches on WebOfScience: ‘*customer/user/patient ecosystems*’ revealing a paucity of articles which were synthesized into a preliminary view (see Table 1 and Table 2 for an overview); and ‘*alignment*’

AND ‘*ecosystems*’ yielding a cross-cutting view across various literature streams. The review was guided by two general questions: (1) *what is the relation of alignment to customer value*, and (2) *what constitutes alignment and its mechanisms*. We synthesized the dimensions of actor alignment in relation to customer value in ‘customer ecosystems’, but we also looked for convergence across ecosystems levels so that a dimension had to apply to actor relations at multiple ecosystem levels to qualify into our framework (see Table 3). We also embraced an integral perspective (Esbjorn-Hargens 2010) making the framework more inclusive in representing actors at *individual* and *collective* levels, and at both *interior (subjective)* and *exterior (objective)* levels (see Figure 2).

Conceptual Framework/Model

The analysis produced the Ecosystem Alignment Framework (Figure 1) including: *Dimensions* (Figure 3), *Mechanisms* and *Facilitators* (Table 5) of actor alignment in ecosystems and its relation to pertinent variables such as *customer value*. Table 4 defines the framework’s fundamental elements. Ecosystem alignment is conceptualized as a multi-level process (i.e. micro, meso, macro - e.g. Vink et al. 2020); a kind of systemic gauge of ‘customer-centricity’ or ‘conduciveness to customer value’ in relation to a particular offering. The model can also be applied to portray alignment with respect to any actor, or across any dyad or aggregate of actors (ANT - Latour 1996).

Dimensionality: Figure 3 shows the verticality of alignment with higher-order dimensions of strategies, values and identities. Along with intentionality/purpose, these reflect alignment at the level of information processing and cognitive interpretation schemes (Barile et al. 2014; Strandvik et al. 2014) and in relation to self-referential congruence (e.g. Sirgy et al. 1991). The next set of dimensions encompasses the needs (needings – Strandvik et al. 2012), desires, and expectations (e.g. Holmqvist, et al., 2020) of a customer (actor), and their fit with the objectives and offerings of others. Misalignment may exist between the conception of an offering, its communication, and

its interpretation by others (e.g. Polese et al. 2017; Taillard et al. 2016). Furthermore, the activities, processes and resources related to an offering need to be compatible and operating smoothly for value creation to emerge (e.g. Grönroos and Helle 2010). Characteristic of alignment is the complex '*multi-dimensionality*' reflecting the simultaneous intra/inter-actor alignment on the same dimensions (horizontal) and across different dimensions (vertical). An example is the aligned intentionality of actors which may or may not resonate with their values and activities. Another example is the inter/intra-actor alignment of resources (e.g. Peters, 2016) for a set of actors practicing an activity together demanding a specialized set of equipment and skills - operand and operant resources, including competencies (Vargo and Lusch 2008; Kleinaltenkamp et al. 2012, Haase and Kleinaltenkamp 2011). Alignment does not imply the content of a dimension is identical between actors; instead, what is important is the compatibility and complementarity for successful interaction and mutual satisfaction to emerge (resonance – Peters et al. 2020).

Alignment Mechanisms: Table 5 elucidates alignment processes and outcomes. Sense-making and learning are some conduits for cognitive alignment leading to information symmetry and the sharing in a mutual stock of knowledge - fundamental to phenomenological attunement (Ashworth et al. 1992). Phenomenological attunement (Delancey 2014) also requires a sense of commitment and trust characteristic of consonant relations, especially when information is asymmetrical (Barile et al. 2014). Moreover, alignment is enacted with predictive and adaptive behaviors (Gallotti et al. 2017), successful interaction (Peters et al. 2020) and resource integration (Vargo and Lusch 2004), which ideally confirm expectations (Oliver 2006; Behling & Starke, 1973), and increase value co-creation (Vargo and Lusch 2004), mutual satisfaction (Barile and Polese 2010), and states of flow (Mathwick and Rigdon 2004) and self-congruity (Sirgy et al. 1991). As such, alignment functions recursively as processes and outcomes/states, reflecting a temporality of interactivity where

experiences are shaped based on past experiences and expectations, as well as projections into the future (e.g. Eggert et al. 2019; engagement & dispositions – Brodie et al. 2019).

Alignment Facilitators: those support and energize the mechanisms and can be organized into two categorizations: structural and relational (e.g. Moran 2005; Rowley et al. 2000). Structural facilitators foster alignment via an infrastructure of resources, capabilities and institutional arrangements, whereas relational facilitators reflect supportive interactivity built around trust and reciprocity (Barile et al. 2014). Both categorizations are inter-related and mutually reinforcing - for e.g., a relational medium of trust and sociality is eased when embedded in an institutional context of shared norms and practices (Vargo and Lusch 2016; Echeverri and Skålén 2011).

Contribution

The alignment framework integrates various concepts into a novel, actionable framework, answering the call for mid-range theories (Brodie et al. 2011) to complement evolving service and marketing logics (Vargo and Lusch 2016). The framework adds connectivity, structure and granularity to ecosystem conceptualizations and actor dynamics (e.g. Chandler and Lusch 2015). It pertains to individual & collective actors, particularly when socio-political-technical change demands reconfiguration and realignment. The framework aims to organize the dimensionality as well as potential mechanisms & facilitators of intra/inter-actor alignment, enabling an integral, multi-dimensional assessment of alignment-misalignment in ecosystems. This helps researchers and practitioners to diagnose areas of opportunity and problem solving, to illuminate actor dynamics and infrastructures, and to deepen insights on how to align ecosystems around customers. *Alignment* as multi-dimensional attunement, resonance, convergence and complementarity can help orient our attention to the differences in how actors see the world, in what they care about, in what they need and expect, and in their preferences, interests and abilities.

Figures & Tables

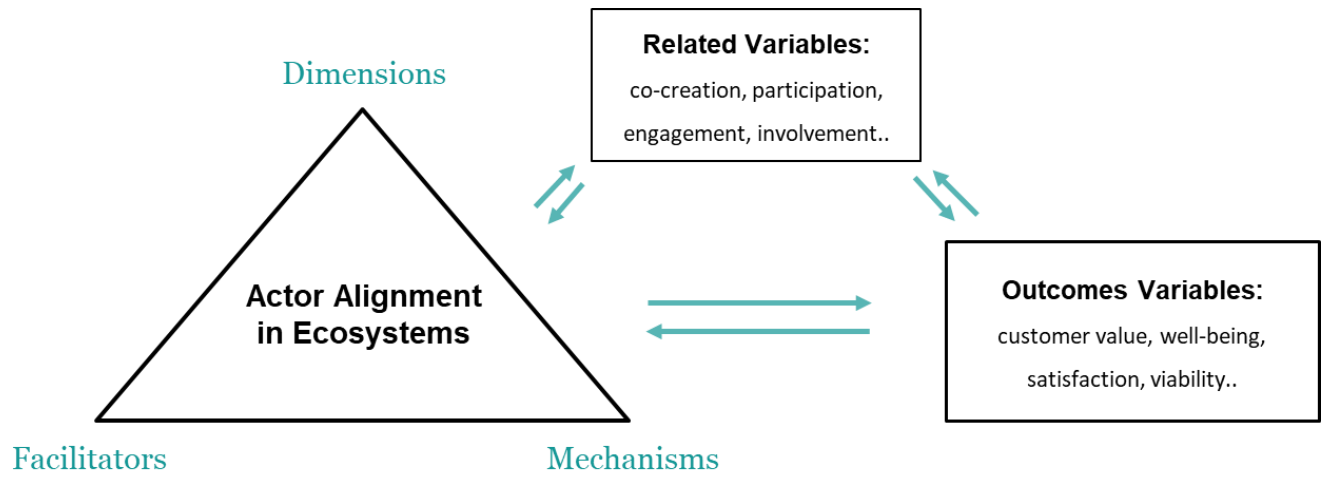


Figure 1. The Ecosystem Alignment Framework

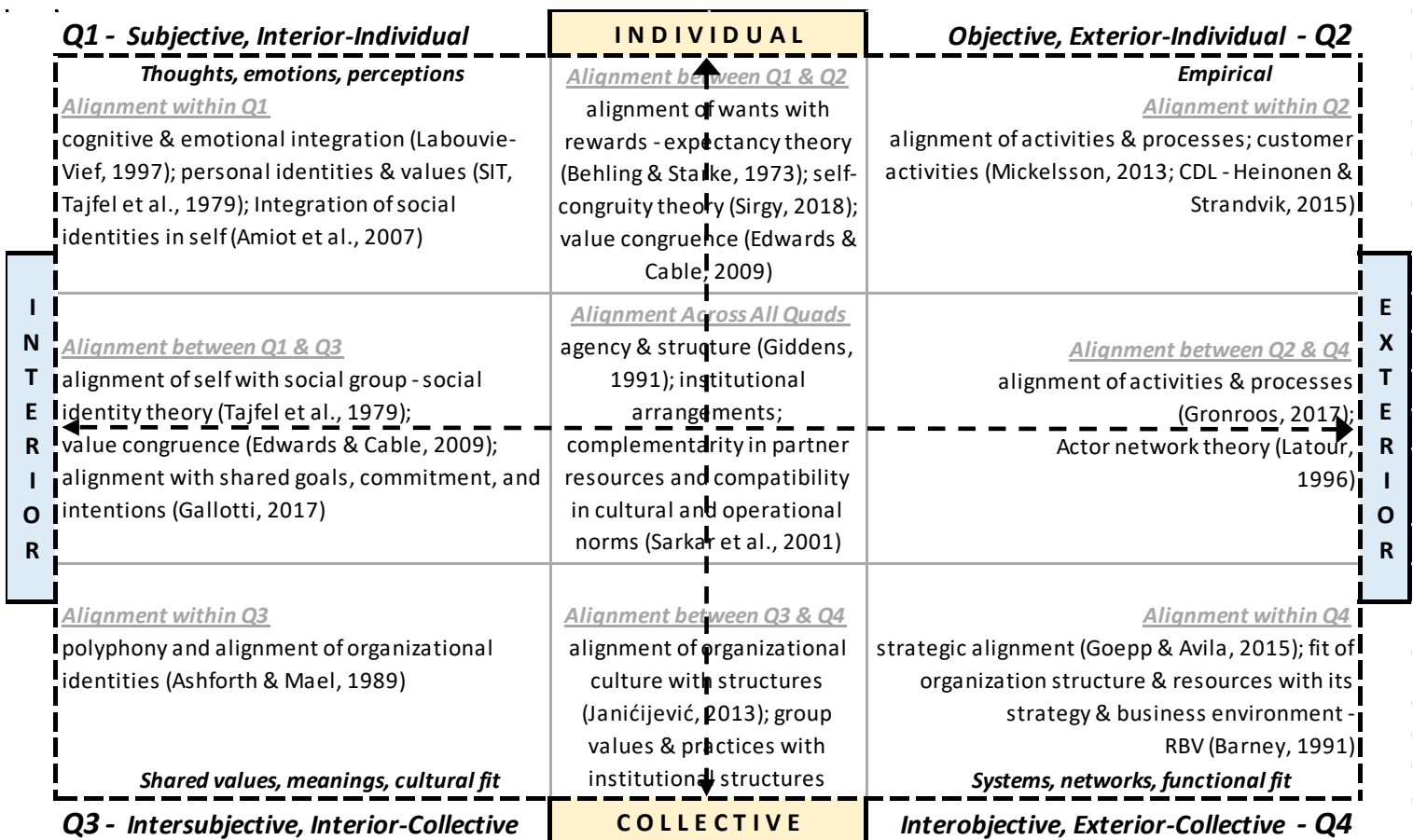
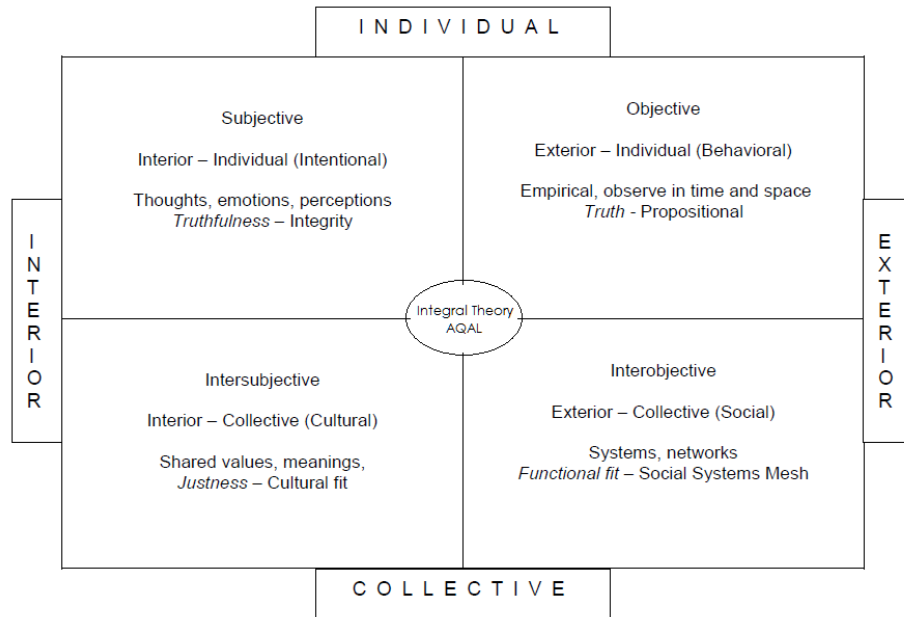


Figure 2. Integral Alignment - within and across individual & collective actors, at interior & exterior levels

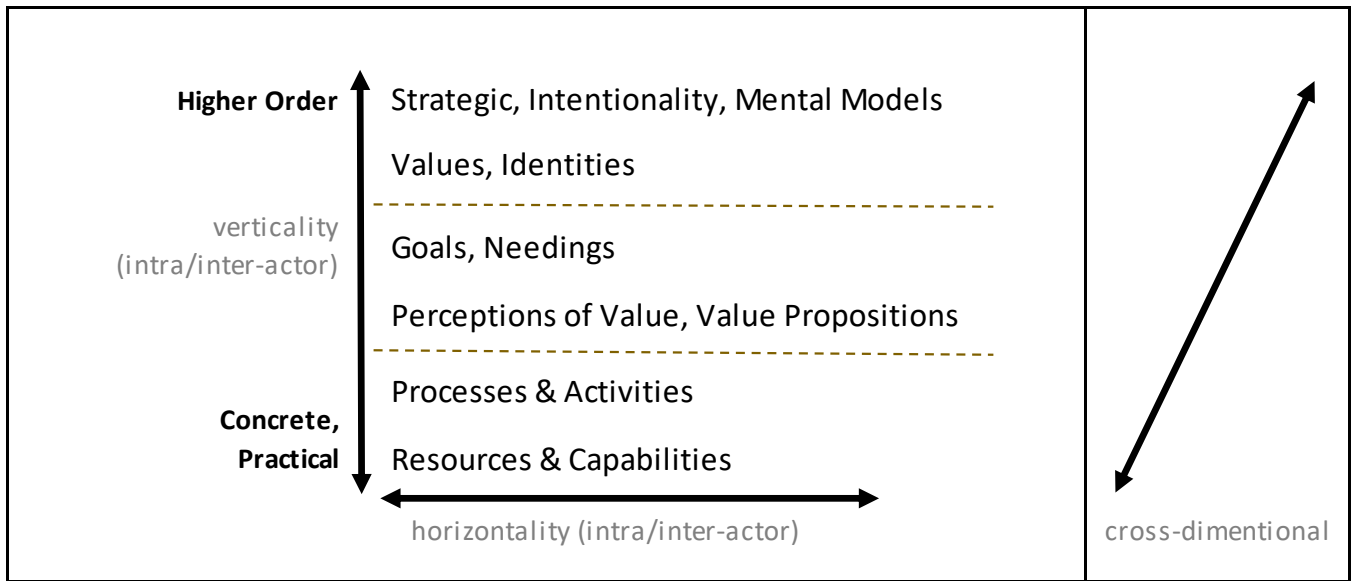


Figure 3. Multi-Dimensional Alignment

Table 1. Summary of Review on "Customer Ecosystems"

Paper Authors	Type	Definition of Customer Ecosystem	Who is the Customer?	Key Concepts and Relevance to Value
Voima et al. (2011)	conceptual	In line with CDL - "Systems of actors related to the customer that are relevant concerning a specific service". "Activities, practices and experiences emerge within the ecosystem, but the general structure is the configuration of actors."	"customer unit, varies from singular to plural, a single person, a group of persons... a company, an organisation etc." "The customer unit is related to how value is formed and experienced as a value unit."	"The value unit refers to all the relevant actors who influence the value formation of the customer." " Value formation is a longitudinal and experiential process which has multiple phases and is colored by individual and collective dimensions (...) with various value configurations and in multiple spatial and temporal value frames".
Heinonen & Strandvik (2015)	conceptual	In line with CDL - Definition quoted from Voima et al. (2011)	"the customer unit can vary from consumers to business customers and from a single entity (consumer, firm or organization) to a collective (of consumers, firms or organizations). Similarly, the business customer does not necessarily mean the entire firm, but it can also denote a single person within a firm."	Focus in on value-in-use , interpreted and re-interpreted, a relative evaluation at different points in time. " Value formation is the term used to describe the process in which value emerges as opposed to being deliberately created, and it is based on use , including physical and mental experiences." "In addition to functional use, use may be symbolic and emotional and can reside within or outside interactions, be individual, collective, deliberate, unintentional, imagined or lived." Who - (see definition of customer) What (outcome) - customer logic , tasks and needing (not needs) determine how the offering is experienced and forms value-in-use. How (process) - value is formed in two separate but related processes, one for customers and one for providers. Where - the context is customer-specific and socially constructed. When - can include the present and the future, and the past through value heritage. " Provider presence needs to be understood from the customer's point of view as potential for use (top of customer's mind, easy and immediate access, trusted)".
Lipkin (2016)	review	In line with CDL. Definition quoted from Voima et al. (2011)	various levels of abstractions; "individual customers orchestrate customer experience formation within self-chosen ecosystems."	Customer experience emerges through customers' actions and processes in customers' ecosystems.
Finne & Grönroos (2017)	conceptual	In line with CDL.	"customers, and the customer ecosystem includes communities – comprising friends and family members and various social media contacts – other customers with whom the customer may interact and various types of	"Following Grönroos (2008, p. 303) (...) Value for customers means that after they have been assisted by a self-service process (...) or a full-service process (...), they are or feel better off than before." " Communication-in-use : the customer's integration and sense making of all messages from any source, company-driven or stemming from other sources, the customer perceives as communication, forming value-in-use for him/her for a specific purpose."
Leino (2017)	conceptual	In line with CDL. Definition quoted from Voima et al. (2011)	Primary Customer is the Patient, Secondary Customers are the patient's loved ones. "The "customer" may vary from singular to plural and be defined on different aggregation levels, as a single person, a group of persons (e.g. family)."	CDL conceptualizations of Customer Unit & Value Unit Vulnerable Patients, Secondary customer needs : needs for psychosocial care and support; communication and information needs; and the importance of cultural sensitivity.
Gallan et al. (2018)	conceptual	Patient ecosystem "comprised of actors and their respective resources, interlinked through value propositions in a network of relationships"	Patient, Patient Community	" Subjective well-being at the individual level has been defined as a broad category of phenomena that includes people's emotional responses, domain satisfactions (e.g., health, work, and social relationships), and global judgments of life satisfaction (Diener & Ryan, 2009), which correlate with many objective measures (Lee et al., 2013), (...) also associated with the ability of individuals to flourish, find meaning, and fulfil their potential." ; " Crucially, it recognizes that these aspects of well-being are affected by
Fernandez-Villaran et al. (2020)	conceptual	reference to CDL and SDL, no explicit definition	Traveler	9 Digitization has completely reshaped the value chain of tourism intermediation . Different actors across the travel journey - "different agents involved in tourism intermediation, at each of the phases in the cycle, from a consumer perspective, distinguishing between tourism intermediaries and other agents."

Table 2. What is said in relation to Alignment in Customer Ecosystems	
Voima et al. (2011)	<p><u>Micro - individual customer level</u> "the focal customer configures products and services dependent on their individual, relational, and collective goals and use the holistic customer ecosystem as a configuration platform for value formation." ; "value experience is shaped by the collective and socio-cultural context roles, positions, and goals of a customer."</p> <p><u>Meso - organizational level</u> "when the service provider understands the customer's logic (Heinonen et al 2010), needing (Strandvik, Holmlund and Edvardsson 2008) and experiential value formation (Voima, Heinonen and Strandvik 2010) it will be able to assist the customer's meaning configuration in her service related ecosystem so that experiential value is formed.</p> <p><u>Macro - collective and societal level</u> "the customer's value experience is shaped by the collective and socio-cultural context"</p>
Dass & Kumar (2014)	<p><u>Micro - individual customer level</u> "(customer-customer) relationships are based on a variety of factors including common backgrounds, interests, adoption and consumption patterns, and overall goals." ; "information shared by these customers across their respective networks shapes preferences and influences the acceptance or rejection of products, services, ideas, or causes."</p>
Heinonen & Strandvik (2015)	<p><u>Micro - individual customer level</u> "customer logic (...) is the basis of value-in-use, offerings and, in essence, business success." ; "customers' activities, experiences and preferences but also their goals, tasks and reasoning." ; "the interconnectedness of customer activities, customer reasoning and the idiosyncratic patterns of customer behavior." ; "The emphasis is on matching the provider's capabilities and resources (offering) with customers' tasks and goals (needing)." ; "When choosing among different offerings, customers also apply their own mental models."</p>
Lipkin (2016)	<p><u>Micro - individual customer level</u> "individuals realize the customer experience (CX) within environmental, social, and temporal contexts through intermediation." "various actor constellations and contextual boundaries frame individual-level CXF." ; "intermediating mechanisms between the external, interaction-based context and the individual may be passive or active, and are often referred to as perception and interpretation, respectively (Pareigis et al., 2012)."</p> <p><u>Macro - collective and societal level</u> "As Helkkula et al. note, CXs emerge through an "iterative circular process of individual, and collective customer sense making" (2012a, p. 59), making the individual's reality socially constructed (Heinonen et al., 2013)."</p>
Finne & Grönroos (2017)	<p><u>Micro - individual customer level</u> "the communication integration and sense-making processes are individual and the value of communication that emerges is individual" ; "to facilitate the formation of customer value from their individual communication-in-use and, if possible, through interactive dialogue with customers, engage directly with their communication value formation, thereby directly influencing their communication-in-use and the subsequent value of communication. "</p>
Leino (2017)	<p><u>Micro - individual customer level</u> Secondary Customer needs were found to be mostly related to psychosocial support, the quantity and quality of information and communication, and cultural sensitivity. "the service provider in meeting these needs – or not – can substantially affect the customer's life, even outside the service encounter."</p> <p><u>Meso - organizational level</u> "...interactive and co-operative activities created to serve both the primary and secondary customers, yet recognising and addressing their differing needs in the service design."</p>
Gallan et al. (2018)	<p><u>Micro - individual customer level</u> -Intraalignment - Coordination of activities and resources to facilitate the expansion of an individual's service ecosystem. Technological empowerment - The extent to which patients are linked to new technological capabilities Infrastructural embeddedness - The extent to which patients are connected to resources . Supporting patients by expanding their ecosystem includes the involvement of family and friends, other patients, access to care and services, and transition and continuity. -Inter-alignment - "coordination of activities and resources to facilitate the connection of different individual ecosystems".</p> <p><u>Meso - organizational level</u> "patient-centered care, have focused on coordinating and integrating ; care, communication, education, emotional support, and physical comfort (Robbins, 2017)."; Resources engaged: physical, environmental, social, technological.</p> <p><u>Macro - collective and societal level</u> "services are exchanged and flow back." ; "to consider the well-being of adjacent patient and community ecosystems." ; "the patient and the community as different layers nested within a service ecosystem." ; "interdependencies and adaptations (...) the plurality of coexisting ecosystems, we advance a realistic model of culture change for healthcare by improving both patient experience and community well-being."</p>
Fernandez-Villaran et al. (2020)	<p><u>Micro - individual customer level</u> "Wherever travellers go, they are online (...) (with) different agents involved in tourism intermediation, at each of the phases in the cycle, from a consumer perspective, distinguishing between tourism intermediaries and other agents."</p> <p><u>Meso - organizational level</u> "The new intermediaries offer added value by filtering the large quantities of information customers receive from multiple different media."</p>

Alignment Themes			Actor Relations						
Alignment Content - <i>alignment on what?</i>		Example References	Customer - Customer	Customer - Provider	Provider - Supplier	Provider - Internal	Supplier - Supplier	Public, NGO or other	Ecosystem / Network
Mental Models, Visioning, Strategic	Values, Vision, Intentions	Palo & Tähtinen (2013); Westergren (2011); Matthysseens et al. (2015); Polese et al. (2017); Taillard et al. (2016); Möller & Halinen (2017); Harrison et al. (2010)	X	X	X	X		X	X
	Value Meanings, Actor Perceptions, Mental Models	Heinonen & Strandvik (2018); Suhritz et al. (2017); Westergren (2011); Grubic (2012); Jaakkola & Hakanen (2013); Strandvik et al. (2012); Altmann & Linder, 2019; Polese et al. (2017); Taillard et al. (2016); Tuli et al. (2007); Di Pietro et al. (2018)	X	X	X		X	X	X
	Mental Models & Strategic Activity	Laari - Salmela et al. (2015)		X	X	X		X	X
	Resources & Capabilities & Service Type (positioning)	Ulaga & Reinartz (2011); Raddats et al. (2019); Kowalkowski et al. (2015)			X	X			X
	Integrated Solution Strategy, & Coordination Mechanisms	Kapoor (2018); Adner (2017); Jaakkola & Hakanen (2013); Palo & Tähtinen (2013); Laya et al. (2018); Möller & Halinen (2017)		X	X			X	X
	Service Innovation Strategy & Business Strategy	Ryu et al. (2015)				X			
	Stakeholder-induced Uncertainty & Supply Chain Configuration	Gualandris & Klassen (2018)			X	X		1	X
	Network Management & Strategic Objectives	Håkansson & Ford (2002); Harrison et al. (2010)			X		X	X	X
	Knowledge Strategy & Competitive Strategy	Bagnoli et al. (2015)				X			
	Strategic & Organizational Elements	Kapoor (2018); Adner (2017); Peters & Waterman (1982); Ulaga & Chacour (2001); Chung et al. (2015); Jayaraman & Liu (2019); Das & Teng (2000); Hayes & Wheelwright (1979)			X	X			
Norms & Values	Network Management & Business & Actor Contexts	Kapoor (2018); Adner (2017); Möller & Halinen (2017); Harrison et al. (2010); Normann & Ramirez (1993)		X	X	X		X	X
	Values, Vision, Intentions	Palo & Tähtinen (2013); Westergren (2011); Matthysseens et al. (2015); Polese et al. (2017); Taillard et al. (2016); Möller & Halinen (2017); Harrison et al. (2010); Heinonen et al. (2013, 2018)	X	X	X	X		X	X
	Firm & Customer Values	Goodwin & Sewall (1992)		X					
	Firm & Consumer Values	Kelley et al. (1990)		X					
	Firm & Employee Values	Van Maanen & Shein (1979); Joo & Shin (2017)				X	X		
Goals, Needs	Shared Values in Ecosystems	Joo & Shin (2017)			X		X	X	X
	Multi-Actor Needs & Goals	Heinonen & Strandvik (2018); Adner (2017); Strandvik et al. (2012); Eggert et al. (2019); Jaakkola & Hakanen (2013); Altmann & Linder (2019); Joo & Shin (2017); Tuli et al. (2007); Heinonen et al. (2013)	X	X	X		X	X	X
	Business & Wider Contexts	Grubic (2012); Laya et al. (2018)			X			X	X
	Tech Innovation & User Needs	Palo & Tähtinen (2013)		X	X			X	X
	Value-System Innovativeness & Goal Complexity	Möller & Halinen (2017)				X		X	X

Definition of Value, Value Proposition	Subjective Value Expectations	Gronroos & Helle (2010, 2012); Gronroos & Voima (2013); Heinonen & Strandvik (2018); Vargo & Lusch (2004); Eggert et al. (2019); Jaakkola & Hakanen (2013); Altmann & Linder (2019); Joo & Shin (2017); Häkansson & Ford (2002); Tuli et al. (2007)	X	X	X		X		X	X
	Value Meanings, Actor Perceptions, Mental Models	Heinonen & Strandvik (2018); Suhritz et al. (2017); Westergren (2011); Grubic (2012); Jaakkola & Hakanen (2013); Strandvik et al. (2012); Altmann & Linder, 2019; Polese et al. (2017); Taillard et al. (2016); Tuli et al. (2007); Di Pietro et al. (2018); Heinonen et al. (2013)	X	X	X		X		X	X
	Value Proposition	Heinonen & Strandvik (2018); Payne et al. (2008); Maishe & Friend (2018); Altman & Linder (2019); Westergren (2011); Grubic (2012); Bankvall et al. (2016); Strandvik et al. (2012); Jaakkola & Hakanen (2013); Gummesson (2008); Normann & Ramirez (1993); Frow et al. (2014); Di Pietro et al. (2018); Chandler & Lusch (2015); Johnson et al. (2008); Vargo & Lusch, (2016)	X	X	X		X		X	X
	Created Shared Value (CSV)	Porter & Kramer (2011)		X	X					
	Definition of Quality, Use of Resources & Processes	Gronroos (2009, 2017)		X						
	Innovative Value Propositions & Current VPs	Grubic (2012); Altmann & Linder, (2019); Frow et al. (2014)		X	X				X	X
	Value-in-use, VCC Resources Complementarity/Dependency	Grönroos & Gummereus (2014); Macdonald et al. (2011); Hankasson & Lind (2004); Bankvall et al. (2016); Jaakkola & Hakanen (2013); Häkansson & Johansson (1992); Frow et al. (2016); Breidbach et al. (2016); Jacobides et al. (2018); Pie & Chumpitaz Cáceres (2010)		X	X				X	X
	Roles, Relationships & Value	Grönroos (2009); Macdonald et al. (2011); Eggert et al. (2019); Hankasson & Lind (2004); Westergren (2011); Häkansson & Johansson (1992); Tuli et al. (2007); Normann & Ramirez (1993); Breidbach et al. (2016); Di Pietro et al. (2018); Lusch & Nambisan (2015); Ramirez (1999); Johnson et al. (2008)	X	X	X	X		X	X	X
	Created Shared Value (CSV)	Porter & Kramer (2011)		X	X				12	
	Value Formation (Provider vs Customer Logic)	Heinonen & Strandvik (2018); Heinonen et al. (2018); Hankasson & Lind (2004); Echeverri & Skalen (2011); Ramirez (1999)	X	X	X					
Value Formation, Business Models	Data Revenue Models & Users Value Creation	Schürtz et al. (2017)		X	X					
	Mutual Value Creation	Gronroos & Helle (2010, 2012); Gronroos & Voima (2013); Westergren (2011); Jaakkola & Hakanen (2013)		X	X					X
	Co-branding	Cassia et al. (2015); Jaakkola & Hakanen (2013)			X					X
	Data-Driven Services	Altman & Linder (2019); Suhritz et al. (2017); Westergren (2011)			X		X		X	X
	Integrated Solution Strategy, Coordination	Jaakkola & Hakanen (2013); Palo & Tahtinen (2013); Laya et al. (2018); Möller & Hallinen (2017)		X	X				X	X
	Business Models & Network Business Models	Laya et al. (2018); Palo & Tahtinen (2013); Bankvall et al. (2016); Jaakkola & Hakanen (2013); Möller & Hallinen (2017)		X	X					X
	Tech Innovation & Servicing Potential User Needs	Palo & Tahtinen (2013)		X	X				X	X
	Firm Roles in a Network-Embedded Business Model	Bankvall et al. (2016); Laya et al. (2018); Möller & Hallinen (2017); Normann & Ramirez (1993); Frow et al. (2014)			X				X	X

Activities, Work Processes, Service Delivery	Value Audit	Ulaça & Chacou (2003); Tuil et al. (2007)		X	X		X					
	Personal Factors & Relational & Environmental Contexts	Wahl & Gerstorf (2018); Heinonen & Strandvik (2018); Mickelsson (2013)	X	X					X		X	
	Customer Socialization	Kelley et al. (1990)	X	X								
	Definition of Quality, Use of Resources & Processes	Grönroos (2009, 2017)		X								
	Practice-Matching	Grönroos & Helle (2010, 2012); Jaakkola & Hakanen (2013); Hakansson & Johansson (1992); Echeverri & Skalen (2011); Pie' & Chumpitaz Ca'ceres (2010)	X	X	X							X
	Work Processes, Value Co-Creation (VCC)	Grönroos & Voima (2013); Grönroos (2009, 2017); Maishe & Friend (2018); Altman & Linder (2019); Schürtz et al. (2017); Westergren (2011); Jaakkola & Hakanen (2013); Hakansson & Johansson (1992); Lusch & Namblisan (2015); De Regge et al. (2015)			X				X	X	X	X
	Intra-Organizational Relationships & Value Innovation	Matthyssens et al. (2015)				X						
	Process Complexity & Process Design & Business Model	De Regge et al. (2015); Suhntz et al. (2017); Westergren (2011); Jaakkola & Hakanen (2013)		X	X	X	X				X	
	Resources & Capabilities	Grönroos & Voima (2013); Vargo & Lusch (2004); Eggert et al. (2019); Macdonald et al. (2011); Jaakkola & Hakanen (2013); Hakansson & Johansson (1992); Matthyssens et al. (2015); Das & Teng (2000); Ulaça & Reinartz (2011); Breidbach et al. (2016); Jacobides et al. (2018); Di Pietro et al. (2018); Lusch & Namblisan (2015); Pie' & Chumpitaz Ca'ceres (2010)		X	X	X	X	X	X	X	13	X
	Value-in-use, VCC Resources Complementarity/Dependency	Grönroos & Gunnerus (2014); Macdonald et al. (2011); Hankasson & Lind (2004); Bankvall et al. (2016); Jaakkola & Hakanen (2013); Hakansson & Johansson (1992); Frow et al. (2016); Breidbach et al. (2016); Jacobides et al. (2018); Pie' & Chumpitaz Ca'ceres (2010); Hayes & Wheelwright (1979)	X	X	X	X	X			X	X	X
Resources & Capabilities, Knowledge & Skills	Work Processes, Value Co-Creation (VCC)	Grönroos & Voima (2013); Grönroos (2009, 2017); Maishe & Friend (2018); Altman & Linder (2019); Schürtz et al. (2017); Westergren (2011); Jaakkola & Hakanen (2013); Hakansson & Johansson (1992); Lusch & Namblisan (2015); De Regge et al. (2015); Johnson et al. (2008)			X				X	X	X	X
	Technical Specifications (e.g. RMS)	Suhntz et al. (2017); Westergren (2011); Grubic (2012); Jaakkola & Hakanen (2013); Bankvall et al. (2016); Heinonen et al. (2018)			X					X		X
	Technology & Value Creation	Westergren (2011); Grubic (2012); Jaakkola & Hakanen (2013); Bankvall et al. (2016); Heinonen et al. (2018)	X	X	X							X
	Process of Customer Resources & Capabilities & Service Type (positioning)	Ulaça & Reinartz (2011); Raddats et al. (2019); Kowalkowski et al. (2015)			X	X	X					X
	Management of Value Creation & Knowledge Codification/Learning	Möller & Rajala (2007); Payne et al. (2008)	X		X				X	X	X	X
	Interactive & Structural Alignment	Matthyssens et al. (2015); Jayaraman & Liu (2019); Das & Teng (2000)			X	X	X					

Table 4. Ecosystem Alignment Fundamentals

Concept	Description
Ecosystem	delimited by the actors and factors relevant to the value formed by the customer in relation to a specific service context; represents both the service and social context (meso, macro), and the customer side (micro)
Ecosystem actor	An actor can be an individual or a collective, a non-human entity or module
Customer	the primary actor (individual or collective) to whom the focal offering is addressed, and who subjectively forms the value in customer networks
Customer value	the process whereby the customer subjectively forms and co-creates value in their customer ecosystem (as value-in-use, value-in-experience)
Multi-actor alignment	the multi-level alignment of ecosystem actors together, whether dyadic or networked, in direct or indirect contact (e.g. alignment across a supplier-provider-customer chain)
Ecosystem alignment with customers	multi-actor alignment, with the customer as the focal actor; a gauge of the overall alignment of relevant actors with the customer; a predictor of customer value
Integral alignment framework	maps alignment within and between ecosystem actors (intra & inter-actor alignment), on the interior (subjective) and exterior (objective) levels (see fig. 2)
Alignment	<p>a process and outcome ranging from alignment to non-alignment and mis-alignment, depending on the extent of resonance and compatibility within or between entities</p> <p>alignment is central to value co-creation and related concepts (see Oertzen et al., 2018)</p> <p>different alignment types based on the extent of reciprocity and integration – e.g. uni or bi-directional; simply behaviorally synchronous, or more engaging with goal and mental alignment (Gallotti et al., 2017)</p>
Multi-dimensional alignment	alignment on the various vertical aspects, ranging from higher-order abstractions to more concrete practicalities (see fig.3); alignment is complex - simultaneously, alignment along the same dimensions (horizontal), and across the different dimensions (vertical)
Alignment Mechanisms	the actual workings of the alignment processes - psychological, processual, structural, and relational - culminating in multi-dimensional attunement, resonance, convergence and complementarity
Alignment Facilitators	structural and relational factors serving a support function that is conducive for the alignment mechanisms; alignment facilitators & mechanisms are mutually reinforcing

Table 5. Examples of Alignment Mechanisms & Facilitators

Alignment Mechanisms (Processual)	Alignment Facilitators	
	Structural	Relational
Information Processing & Information Symmetry (Barile et al. 2014); Sense-making (Arnould & Thompson 2005) Learning (Payne et al. 2008) Phenomenological Attunement (Delancey 2014) Identification (Ashforth & Mael 1989) Self-Congruity (Sirgy et al. 1991) Predictive & Adaptive Behaviors (Gallotti et al. 2017) Successful Interaction (Resonance - Peters et al. 2020) Resource Integration (Vargo & Lusch 2004) Value Co-Creation (Vargo & Lusch 2004) Satisfying Expectations (Oliver 2006); Expectation Confirmation (Behling & Starke 1973); Mutual Satisfaction (Barile & Polese 2010); Flow (Mathwick & Rigdon 2004)	<u>Actors:</u> Coordinating Actors, Orchestrators, Keystone Actors (Frow et al. 2019) Relations (Vargo & Lusch 2004) <u>Resources & Capabilities:</u> Boudary-Spanning Objects (Sajtos et al. 2018) Platforms & Technologies (Du & Chou 2019; Sklyar et al.2019) Network & Relational Capabilities (SDL-based - Greer et al. 2017) Information Integration, & Communication Capabilities (Finne & Grönroos 2017) Resource Integrating Capabilities (Vargo & Lusch 2008) Strategic-Operational Capabilities, BMs, VPs (Trischler et al. 2020); Socio-Material Assemblage Architectures (Du & Chou 2019); Resource Integration Choreographies (Storbacka et al. 2016) <u>Governance Structures</u> (e.g. Policy) (Reficco & Márquez 2017) <u>Tacit Structures:</u> Insitutionalization, Culture, Practices, Language (Vargo & Lusch 2016; Echeverri & Skålén 2011)	Consonant Relations - <i>effective communication, reciprocal understanding and strong commitment</i> (VSA - Barile et al. 2014) Mutual Exchange of Information (Gallotti et al. 2017) Trust & Reciprocity (Barile et al. 2014) Win-win Logic (Gummesson et al. 2010); Feedback Loops and Response (Vink et al. 2020; Jayaraman & Liu 2019) Uncertainty Mitigation & Adaptation (Jayaraman & Liu 2019) Viability Mechanisms (Peters et al. 2020) Supportive, Collaborative, Value Mindset (Malshe & Friend 2018) Interaction Facilitation; Collaborative, Co-creative Processes - <i>collaboration & dialogue, joint ideation, shared problem-solving, learning; transparency of resource integration activities; shared purpose</i> (Gualandris & Klassen 2018; Malshe & Friend 2018; Lusch & Nambisan 2015) Engagement & Dispositions (Chandler & Lusch 2015) Socialization (Kelley et al. 1992)

References

- Adner, R. (2017). Ecosystem as structure: an actionable construct for strategy. *Journal of Management*, 43(1), 39–58.
- Akaka, M.A., Vargo, S.L., & Lusch, R.F. (2012). An exploration of networks in value co-creation: a service-ecosystems view. *Review of Marketing Research*, 9, 13–50.
- Arnould, E. J., & Thompson, C. J. (2005). Consumer culture theory (CCT): Twenty years of research. *Journal of consumer research*, 31(4), 868-882.
- Ashworth, P. D., Longmate, M. A., & Morrison, P. (1992). Patient participation: its meaning and significance in the context of caring. *Journal of advanced nursing*, 17(12), 1430–1439.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20-39.
- Barile, S., Lusch, R., Reynoso, J., Saviano, M., & Spohrer, J. (2016). Systems, networks, and ecosystems in service research. *Journal of Service Management*, (27)4, 652-674.
- Barile, S., Saviano, M., & Polese, F. (2014). Information asymmetry and co-creation in health care services. *Australasian Marketing Journal*, 22(3), 205-217.
- Behling, O., & F. A. Starke (1973). The postulates of expectancy theory. *The Academy of Management Journal*, 16(3), 373-388.
- Brodie, R. J., Fehrer, J. A., Jaakkola, E., & Conduit, J. (2019). Actor engagement in networks: Defining the conceptual domain. *Journal of Service Research*, 22(2), 173-188.
- Brodie, R. J., Saren, M., & Pels, J. (2011). Theorizing about the service dominant logic: the bridging role of middle range theory. *Marketing Theory*, 11, 175–191.
- Čaić, M., Holmlid, S., Mahr, D., & Odekerken-Schröder, G. (2019). Beneficiaries' view of actor networks: Service resonance for pluralistic actor networks. *International Journal of Design*, 13(3), 69-88.
- Chandler, J.D., & Lusch, R.F. (2015). Service systems: a broadened framework and research agenda on value propositions, engagement, and service experience. *Journal of Service Research*, 18(1), 6-22.
- DeLancey, C. (2014). Commitment and attunement. *Phenom Cogn Sci*, 13, 579–594.
- Du, P., & Chou, H.-H. (2020). Sociomaterial practices for value co-creation in the sharing economy: Evidence from Xbed's access-based accommodation service. *Information Technology & People*, 33(3), 963-982.
- Echeverri, P., & Skålén, P. (2011). Co-Creation and co-destruction: a practice-theory based study of interactive value formation. *Marketing Theory*, 11(3), 351–73.
- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, 94(3), 654–677.
- Eggert, A., Kleinaltenkamp, M., & Kashyap, V. (2019). Mapping value in business markets: An integrative framework. *Industrial Marketing Management*, 79, 13-20.

- Esbjorn-Hargens, S. (2010). *Integral theory in action: applied, theoretic, and constructive perspectives on the AQWAL model*. Suny Press: Albany.
- Findsrud, R., Tronvoll, B., & Edvardsson, B. (2018). Motivation: The missing driver for theorizing about resource integration. *Marketing Theory*, 18(4), 493-519.
- Frow, P., McColl-Kennedy, J. R., Payne, A., & Govind, R. (2019). Service ecosystem well-being: conceptualization and implications for theory and practice. *European Journal of Marketing*, 53(12), 2657-2691
- Greer, C. R., Lusch, R. F., & Hitt, M. A. (2017). A service perspective for human capital resources: A critical base for strategy implementation. *Academy of Management Perspectives*, 31(2), 137-158.
- Gualandris, J., & Klassen, R. D. (2018). Emerging Discourse Incubator: Delivering transformational change: aligning supply chains and stakeholders in non-governmental organizations. *Journal of Supply Chain Management*, 54(2), 34-48.
- Gallotti, M., Fairhurst, M. T., & Frith, C. D. (2017). Alignment in social interactions. *Consciousness and Cognition*, 48, 253-261.
- Giddens, A. (1991). Structuration theory. *Past, Present and Future*. In: Bryant, C. and Jary, D.(eds.). *Giddens' Theory of Structuration. A Critical Appreciation*. London: Routledge, 55-66.
- Grönroos, C. (2017). Relationship marketing readiness: Theoretical background and measurement directions. *Journal of Services Marketing*, 31(3), 218-225.
- Grönroos, C. (2009). Promise management: Regaining customer management for marketing. *Journal of Business & Industrial Marketing*, 24(5/6), 351-359.
- Grönroos, C., & Helle, P. (2010). Adopting a service logic in manufacturing: conceptual foundation and metrics for mutual value creation. *Journal of Service Management*, 21(5), 564-590.
- Gummesson, E., Mele, C., Polese, F., Barile, S., & Polese, F. (2010). Linking the viable system and many-to-many network approaches to service-dominant logic and service science. *International Journal of Quality and Service Sciences*, 2(1), 23-42.
- Haase, M., & Kleinaltenkamp, M. (2011). Property Rights Design and Market Process: implications for market theory, marketing theory, and SD logic. *Journal of Macromarketing*, 31(2), 148–59.
- Heinonen, K., Holmlund, M., Strandvik, T., Rihova, I., Buhalis, D., Moital, M., & Gouthro, M. B. (2013). Social layers of customer-to-customer value co-creation. *Journal of Service Management*, 24(5), 553-566.
- Heinonen, K., Jaakkola, E., & Neganova, I. (2018). Drivers, types and value outcomes of customer-to-customer interaction. *Journal of Service Theory and Practice*, 28(6), 710-732.
- Heinonen, K., Strandvik, T., Mickelsson K.-J., Edvardsson B., Sundstrom, E., & Andersson, P. (2010). A customer-dominant logic of service. *Journal of Service Management*, 21(4), 531-548.
- Heinonen, K., & Strandvik, T. (2015). Customer-dominant logic: foundations and implications. *Journal of Services Marketing*, 29(6/7), 472-484.

- Jaakkola, E., & Hakanen, T. (2013). Value co-creation in solution networks. *Industrial Marketing Management*, 42(1), 47-58.
- Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic Management Journal*, 39, 8, 2255-2276.
- Janićijević, N. (2013). The mutual impact of organizational culture and structure. *Economic annals*, 58(198), 35-60.
- Jayaraman, V., & Liu, Z. (2019). Aligning governance mechanisms with task features to improve service capabilities---an empirical study of professional service outsourcing in India. *Operations Management Research*, 12(1/2), 19-39.
- Kapoor, R. (2018). Ecosystems: Broadening the locus of value creation. *Journal of Organization Design*, 7(1), 1-16.
- Kelley, S. W., Skinner, S. J., & Donnelly Jr, J. H. (1992). Organizational socialization of service customers. *Journal of Business Research*, 25(3), 197-214.
- Kleinaltenkamp, M., Brodie, R. J., Frow, P., Hughes, T., Peters, L. D., & Woratschek, H. (2012). Resource integration. *Marketing Theory*, 12(2), 201-205.
- Latour, B. (1996). On actor-network theory: A few clarifications. *Soziale welt*, 369-381.
- Lusch, R. F., & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective. *MIS Quarterly: Management Information Systems*, 39(1), 155-175.
- Malshe, A., & Friend, S. B. (2018). Initiating value co-creation: Dealing with non-receptive customers. *Journal of the Academy of Marketing Science*, 46(5), 895-920.
- Mathwick, C., & Rigdon, E. (2004). Play, flow, and the online search experience. *Journal of consumer research*, 31(2), 324-332.
- Mickelsson, K. J. (2013). Customer activity in service. *Journal of Service Management*, 24(5), 534-552.
- Moran, P. (2005). Structural vs. relational embeddedness: Social capital and managerial performance. *Strategic Management Journal*, 26(12), 1129-1151
- Oliver, R. (2006). Customer satisfaction research. In *The handbook of marketing research* (pp. 569-587). SAGE Publications, Inc.
- Oertzen, A.-S., Odekerken-Schröder, G., Brax, S.A., & Mager, B. (2018). Co-creating services—conceptual clarification, forms and outcomes. *Journal of Service Management*, 29(4), 641-679.
- Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the academy of marketing science*, 36(1), 83-96.
- Polese, F., Pels, J., Tronvoll, B., Bruni, R., & Carrubbo, L. (2017). A4A Relationships. *Journal of Service Theory and Practice*, (27)5, 1040–1056.
- Peters, L.D., Nenonen, S., Polese, F., Frow, P., & Payne, A. (2020). Viability mechanisms in market systems: prerequisites for market shaping. *Journal of Business & Industrial Marketing*, 35(9), 1403-1412.

- Peters, L. D. (2016). Heteropathic versus homopathic resource integration and value co-creation in service ecosystems. *Journal of Business Research*, 69(8), 2999-3007.
- Reficco, E., & Márquez, P. (2012). Inclusive networks for building BOP markets. *Business & Society*, 51(3), 512-556.
- Rowley, T., Behrens, D., & Krackhardt, D. (2000). Redundant governance structures: An analysis of structural and relational embeddedness in the steel and semiconductor industries. *Strategic Management Journal*, 21(3), 369-386.
- Sajtos, L., Kleinaltenkamp, M., & Harrison, J. (2018). Boundary objects for institutional work across service ecosystems. *Journal of Service Management*, 29(4), 615-640.
- Sarkar, M. B., Echambadi, R., Cavusgil, S. T., & Aulakh, P. S. (2001). The influence of complementarity, compatibility, and relationship capital on alliance performance. *Journal of the Academy of Marketing Science*, 29(4), 358-373.
- Sirgy, M. J. (2018). Self-congruity theory in consumer behavior: A little history. *Journal of Global Scholars of Marketing Science*, 28(2), 197-207.
- Sirgy, M. J., Johar, J. S., Samli, A. C., & Claiborne, C. B. (1991). Self-congruity versus functional congruity: Predictors of consumer behavior. *Journal of the Academy of Marketing Science*, 19(4), 363-375.
- Sklyar, A., Kowalkowski, C., Sörhammar, D., & Tronvoll, B. (2019). Resource integration through digitalisation: A service ecosystem perspective. *Journal of Marketing Management*, 35(11-12), 974-991.
- Storbacka, K., Brodie, R. J., Böhmann, T., Maglio, P. P., & Nenonen, S. (2016). Actor engagement as a microfoundation for value co-creation. *Journal of Business Research*, 69(8), 3008-3017.
- Strandvik, T., Holmlund, M., & Edvardsson, B. (2012). Customer needing: a challenge for the seller offering. *Journal of Business & Industrial Marketing*, 27(2), 132-141.
- Strandvik, T., Holmlund, M., & Grönroos, C. (2014). The mental footprint of marketing in the boardroom. *Journal of Service Management*, 25(2), 241-252.
- Taillard, M., Peters, L.D., Pels, J., & Mele, C. (2016). The role of shared intentions in the emergence of service ecosystems. *Journal of Business Research*, 69(8), 2972–2980.
- Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational identity: A reader*, 56-65.
- Torraco, R.J. (2005). Writing integrative literature reviews: guidelines and examples. *Human Resource Development Review*, 4(3), 356-367.
- Trischler, J., Johnson, M., & Kristensson, P. (2020). A service ecosystem perspective on the diffusion of sustainability-oriented user innovations. *Journal of Business Research*, 116, 552-560.
- Tuominen, T., Edvardsson, B., & Reynoso, J. (2020). Institutional change and routine dynamics in service ecosystems. *Journal of Services Marketing*, 34(4), 575-586.
- Uslay, C., Morgan, R. E., & Sheth, J. N. (2009). Peter Drucker on marketing: an exploration of five tenets. *Journal of the Academy of Marketing Science*, 37(1), 47.

- Vargo, S. L., Akaka, M. A., & Vaughan, C. M. (2017). Conceptualizing value: a service-ecosystem view. *Journal of Creating Value*, 3(2), 117-124.
- Vargo, S.L., & Akaka, M.A. (2012). Value cocreation and service systems (re)formation: a service ecosystems view. *Service Science*, 4(3), 207–17.
- Vargo, S. L., & Lusch, R. F. (2017). Service-dominant logic 2025. *International Journal of Research in Marketing*, 34(1), 46-67.
- Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5-23.
- Vargo, S.L., Lusch, R.F. (2008). Service-Dominant Logic: continuing the evolution. *Journal of the Academy of Marketing Science* 36(1), 1–10.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving a new dominant logic for marketing. *Journal of Marketing*, 68, 1-17.
- Vink, J., Koskela-Huotari, K., Tronvoll, B., Edvardsson, B., & Wetter-Edman, K. (2020). Service ecosystem design: Propositions, process model, and future research agenda. *Journal of Service Research*, 1-19.
- Voima, P., Heinonen, K., Strandvik, T., Mickelsson, K. J., & Arantola-Hattab, L. J. (2011). A customer ecosystem perspective on service. *QUIS 12: Advances in Service Quality, Innovation and Excellence*.
- Wieland, H., Polese, F., Vargo, S. L., & Lusch, R. F. (2012). Toward a Service (Eco)Systems Perspective on Value Creation. *International Journal of Service Science, Management, Engineering, and Technology*, 3(3), 12–25.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.