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VALUE CREATION IN CONSTRUCTION PROJECTS: CURRENT APPROACHES AND INSIGHT FROM STAKEHOLDER THEORY FOR FUTURE DIRECTIONS

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ABSTRACT

Over the years, the focus on value creation has shifted from hard, tangible economic benefits to the soft, intangible outcomes related to sustainability and broader social issues. Within the extant value creation literature, there are many perspectives on the concept of value and its generation; however there is a dearth of studies on value creation in a construction context. Through a systematic review of current literature and drawing from the stakeholder theory, this study examines the common approaches in value creation and proposes a framework to value creation for stakeholders in construction. In particular, the new framework conceptualizes two categories of value creation to construction firms and their projects: independent and co-creation. The main insights from this conceptual framework include: 1) value creation process is a strategic issue that needs to be addressed by organizations through resources exchange, information sharing, effective relational governance and continuous interactions; 2) projects, as vehicles for value creation in the construction industry, create value for stakeholders in the form of delivery outputs and overall outcomes; 3) relationships between stakeholders (i.e. transactional, cooperative and collaborative) are an effective way to maximize project value. Further research about value creation for stakeholders is essential to develop value creation theory in construction.

Keywords: benefits, construction project, relationships, stakeholders, value creation.

INTRODUCTION

Increasingly, value creation (VC) has been recognized as a useful lens for gauging the sustainability and competitiveness of organizations, industries and nations over the long-term (Pitelis and Vasilaros 2010). Scholars of different disciplines have highlighted VC as effective processes to achieve competitive advantage through minimizing cost exchanges (Moran and Ghoshal 1996), improving transactional relationships (Zajac and Olsen 1993) and, developing social capital and facilitating the generation of intellectual capital (Nahapiet and Ghoshal 1997). Thus, VC is considered strategic because it represents a long-term organizational direction, constituting the most critical business objective (O'Cass and Ngo 2011, Jensen 2001).

Despite the broad interest on the topic, VC concept has been underpinned by various theoretical perspectives (Ng and Smith 2012, Barima 2010). Ng and Smith (2012) state that 'the concept of value has been discussed for 2000 years with various nuanced meanings'. Value has been traditionally associated to economic and financial benefits for shareholders (Pitelis and Vasilaros 2010, Moran and Ghoshal 1996, Patanakul and Shenhar 2007) in terms of wealth and profits maximization. In recent years, the focus has shifted to stakeholders and their relationships as a fundamental source of value creation, especially in the form of non-financial and intangible benefits

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(O'Cass and Ngo 2011, Jensen 2001, Garriga 2014, Harrison and Wicks 2013). Nevertheless, progress of stakeholder theory remains conceptual and theoretical. Parmar et al. (2010) declare that stakeholder theory needs to resolve some relevant questions about VC in business, strategic management and other related disciplines.

Project-based organizations (PBOs) such as construction firms organize their work in the form of projects. Recognizing that PBOs' core business is creating value for their clients through the effective delivery of projects that meet or exceed client's needs (Thomas and Mullaly 2008), construction companies should manage strategically its projects, (Shenhar 2004), by means of an effective VC process that achieves the best value for each stakeholder (Shenhar 2004, Patanakul and Shenhar 2007). Despite its importance, there is a dearth of studies examining the link between VC process and project value. This study fills that gap by qualitatively examining the impact of various VC approaches on project value.

Below, systematically literature is reviewed and drawing from the stakeholder theory, a conceptual framework linking VC approaches and project value is proposed. Implications for future research and practice are discussed.

RESEARCH METHODOLOGY

The research methodology used was a systematic literature review. The objectives were: 1) analysing and synthetizing prior knowledge to provide the foundation for understanding the VC concept, relevance, main factors and, effects on organizational and project value; 2) proposing and communicating effectively a new framework; and 3) developing the basis to future research in this field applied in the construction industry. We used the literature review approach propose by Bandara et al. (2011). First, identification and extraction of articles were realized under two main criteria, sources selection and search strategy. The domain 'value creation for stakeholders' was searched through *CrossSearch, Google Scholar* and *Scopus* to select strategic, project and construction management peer-reviewed journal papers, conference papers and priority books. Main terms could be included in the title, abstract or keywords. Two tools were used to select relevant literature: *EndNote* for capturing and managing bibliographic details and *Adobe Acrobat Pro* for supporting search the full text articles and electronic books. Although, the review targeted publications from 2000 to 2014, some seminal papers were included. Hence, 176 publications were selected as the dataset of this study (see bibliographic list in appendix). Second, preparing for analysis was performed following two main actions: defining what to capture through a pre-codification scheme (e.g., definitions, components, factors, indicators, theories, stages and levels about VC) and, capturing information effectively. Both actions were supported by *NVIVO* that is a computational tool to analyse qualitative data. Third, actual coding where we introduced relevant information (i.e. sentences or paragraphs) in different levels according to pre-code scheme This action derived on key factors of VC process. Lastly, analysis and write-up was the last step where realize a descriptive and comprehensive analysis of the selected literature, checking redundancies and reporting. Thus, a conceptual framework linking VC with project value was defined.

THEORETICAL BACKGROUND OF VALUE CREATION

Value creation process

Value creation has accordingly represented a significant topic within strategic management research. Normann and Ramirez (1993) point out that "strategy is the art of creating value" and Bowman and Ambrosini (2000) indicate that "firms exist to

create value". Traditionally, value creation has been understood in economic and financial sense, through use value and exchange value concepts (Bowman and Ambrosini 2000, Lepak et al. 2007, O'Cass and Ngo 2011, Priem 2007). Thus, value creation is a dynamic process that produces the perceived *use value* in relation to needs of the client, and to generate the *exchange value* when the product or service is sold (Bowman and Ambrosini 2000). Beyond this classic definition, three theories have underpinned the concept of value creation at an organizational level: *transaction cost economics (TCE)*, *resource-based view (RBV)*, and more recently, *stakeholder theory*. First, *TCE* focuses on minimizing transaction costs of exchange (Williamson 1985), where value is related to maximizing profits for shareholders (Gummerus 2013, Moran and Ghoshal 1996, Patanakul and Shenhar 2007, Pitelis and Vasilaros 2010). Based on this theory, the main driver of value creation is transaction efficiency, i.e. the attenuation of uncertainty, complexity, information asymmetry and small-numbers bargaining conditions and, the increment of reputation, trust and transactional experience (Amit and Zott 2001). Second, *RBV* focuses on valuing resources and capabilities. According to Barney [cited by (Bowman and Ambrosini 2000)] RBV is founded on the premise that the source of competitive advantage of an organization is the exploration of heterogeneous resources and competences, i.e. strategic capabilities difficult to imitate. Hence, firm's resources are valuable to the extent that client needs are better satisfied, at lower costs than others firms, and, implementing strategies that enhance its performance in terms of efficiency and effectiveness (Bowman and Ambrosini 2000, Wang and Wei 2007). Main drivers for creating value are valuable resources and capabilities, dynamic capabilities (over time) such as coordination, integration, reconfiguration or transformation, or learning (Amit and Zott 2001). Third, *stakeholder theory* focuses on maximizing benefits through relationships with stakeholders (Freeman et al. 2010). Jensen (2001) argues that maximizing value for stakeholders is the most relevant organizational objective. Additionally, O'Cass and Ngo (2011) emphasize the strategic role of VC for any organization because it represents a long-term direction. Although economic and financial perspective is considered the main firm's value measurement, the maximization of value through stakeholder's satisfaction increases returns in long-term (Harrison and Wicks 2013, Jensen 2001). To conclude, this study takes stakeholder theory as the theoretical foundation because it helps to analyze how construction firms can create value considering permanent relationships with its stakeholders.

Dimensions of value creation

Stakeholders have a significant role in the VC process. The maximization of value (i.e. benefits or outcomes) in this process is based on the relationships with and interactions between the firm and its exchange partners (Zajac and Olsen 1993, Harrison and Wicks 2013, Lepak et al. 2007). According to Freeman et al. (2010), stakeholders are a related group or individuals that contribute to value creation because it can affect or be affected by the achievement of the firm's goals. A firm's stakeholders could be owners or/and investors (shareholders), employees, customers and/or users, suppliers, agencies of government or local communities (Freeman et al. 2010, Harrison and Wicks 2013, Jensen 2001, Lepak et al. 2007). Although organizational value creation depends on its activities (Bowman and Ambrosini 2000, Harrison and Wicks 2013, Lepak et al. 2007), it is necessary that stakeholders collaborate closely to create relational and mutual value (Kelly 2007, Zajac and Olsen 1993). There are basically two value creation dimensions. First, *independent* or *sole value creation*, i.e. a firm creates value independently of others basing on its processes and competences. Second, stakeholders collaborate closely to *co-create* value.

Independent value creation refers to the creation of value by a single stakeholder who may be the designer or construction firm in the case of construction projects. Typically, the focal firm has the capability to deliver what has been requested of them without the need to seek extensive help from outside the firm. The product or services to be delivered is relatively simple and straightforward and within the firms expertise area. Thus, the VC process is a series of activities performed by the firm (Vargo et al. 2008) independently of actions of other firms (Austin and Seitanidi 2012).

Especially in prior strategic and marketing management literature, three main factors have been frequently mentioned to create value for stakeholders as independent value creation: *resources exchange*, *information sharing* and *relational governance*. First, evidently products and services represent a relevant element to consider in value creation, because clients (recognized as main firm's stakeholder (O'Cass and Ngo 2011)) are satisfied in accord with the product's performance level received (Harrison and Wicks 2013). This *resource exchange* goes further than tangible or physical goods, it includes time, effort allocated or other type of intangible outcomes, thus remaining stakeholders such as employees or communities, and they will receive created value in different forms of benefits (Amit and Zott 2001, Harrison and Wicks 2013, Jylhä and Junnila 2014). Additionally, Lepak et al. (2007) state that firm's performance depends of its activities and then VC is associated directly with product innovation. The same idea is shared by Tsai and Ghoshal (1998) who argue that resources exchange and combinations have a positive effect on innovative products or services.

Second, although *information sharing* could be understood as a benefit achieved by relationships between stakeholders, it is fundamental in terms of stakeholder cooperation during an independent value creation process (Hammervoll 2012, Jylhä and Junnila 2014). Hammervoll (2012) argues that information sharing impacts significantly on operative performance of the firm, consequently the better information being shared, the better will be the process of value generation to impact positively on product performance. In this way, Wang and Wei (2007) point out that virtual integration, i.e. to use IT for facilitating exchange and operations between partners, can increase partially information visibility. While Tsai and Ghoshal (1998) recognize that social interaction i.e. the improvement of "information channels and resource flows network", is positively impacting on value creation through stakeholders interactions and offering exchanged. At last, some empirical evidence demonstrate that information exchange is a positive moderator between VC and organizational satisfaction (Wagner et al. 2010) where shared values and vision are fundamental (Hammervoll 2012, Harrison and Wicks 2013, Murphy et al. 2014).

Third, several researchers have argued that *relational governance mechanisms* are effective for creating value to stakeholders (Hammervoll 2012, Harrison and Wicks 2013, Tsai and Ghoshal 1998, Wagner et al. 2010, Zajac and Olsen 1993), rather than formal or contractual mechanisms (Wang and Wei 2007). Relational governance in the context of VC refers to different inter-organizational relationship mechanisms between stakeholders such as trust, commitment and cooperation (Wang and Wei 2007) based on the norm of solidarity (Hammervoll 2012) and fairness (Harrison and Wicks 2013). According to Zajac and Olsen (1993), value maximization is reached through relational and inter-organizational strategies, which are formal cooperative arrangements between partners e.g. alliancing. Relational dimension of social capital

underlines trust, being a main attribute of a relationship (Möller 2006, Tsai and Ghoshal 1998, Nahapiet and Ghoshal 1997), and a relevant protection mechanism for opportunistic behaviors (Banihashemi and Liu 2013, Harrison and Wicks 2013, Wagner et al. 2010). In addition, Wagner et al. (2010) demonstrate empirically that relational trust impacts on the VC process and future collaborate-based relationship intention between stakeholders, constituting a benefit of long-term. In sum, independent VC is the innovative and complex organizational process where several factors affect significantly in the production and management of products and services for satisfying its clients, i.e. a value proposition to facilitate a value exchange.

In contrast, *co-creating value* is a joint creation of value based on interactions, active dialogue, motivation, and co-build experiences between the focal firm and its clients (Prahalad and Ramaswamy 2004, Grönroos and Voima 2013, Gummerus 2013, Ng and Smith 2012) and other stakeholders (Rod et al. 2014, Roser et al. 2013). This process requires generating instances to co-production, integrating resources and applying mutual competences (Vargo et al. 2008) where the beneficiary is who determines its perception about received offering (Rod et al. 2014). According to Roser et al. (2013) the better quality of products and services increased stakeholder satisfaction, risk reduction, lower social and environmental issues, and improvement competitiveness are some benefits of value co-creation with stakeholders.

Similarly to the independent VC process, some factors have been recognized in prior management literature, although the most relevant is *continuous interactions*. *Continuous interactions* are related with physical, virtual or mental situations involved between focal firm and clients (and other stakeholders) for influencing purported benefits (Grönroos and Voima 2013). Ranjan and Read (2014) argue that interaction is a primary interface to co-produce an offering, mainly in a design phase where the participation, dialog, knowledge and stakeholder engagement (also mentioned by Chang et al. (2013) and Austin and Seitanidi (2012)) are fundamental for solving issues and proposing solutions. Interactions imply that the partners may improve adaptability in the VC system through inter-relationships, allowing integration of resources and competences for mutual benefits of all stakeholders (Vargo et al. 2008). Finally, interactions are systematically supported in a collaborative environment where partners (i.e. mainly clients and suppliers) have a high resource complementary, distinctive competency and strong or broad linked interests (Austin and Seitanidi 2012). In summary, continuous interactions are critical for co-creating value (Rod et al. 2014), constituting a source of competitive advantage to the firm (Prahalad and Ramaswamy 2004) and a source of long-term benefits for stakeholders (Austin and Seitanidi 2012, Chang et al. 2013, Garriga 2014).

Although there are some other studies related to independent VC and value co-creation (Heinonen et al. 2010, Murphy et al. 2014, Pitelis and Vasilaros 2010, Jaakkola and Alexander 2014), VC literature is confused because apparently both processes are complementary but they can also be considered exclusive. Thus, this paper conceptualizes independent VC and value co-creation from a construction project point of view as complementary and inclusive processes, but that impact differently on project value.

CONSTRUCTION AS VALUE CREATION LOGICS

For understanding how is the process of VC to generate competitive advantage at the firm-level, Stabell and Fjeldstad (1998) defined three value logics applicable within a

broad range of industries, namely: *value chain*, based on long-linked interdependency delivers value for transforming inputs in products; *value shop*, based on intensive interdependency delivers value for resolving unique customer problems; and, *value network*, based on to mediate interdependency delivers value for enabling direct and indirect exchange between consumers. These logics provide a conceptual foundation about VC (Stabell and Fjeldstad 1998) in a construction context (Bygballe et al. 2013).

First, *value chain logic* was developed by Michael Porter for analyzing how various activities across a firm or industry contribute to competitiveness of the product or service (Stabell and Fjeldstad 1998). Based on this perspective, value can be created by product/service differentiation or lower buyers' cost where main drivers of value creation are policy choices, linkages, timing, location, sharing of activities, learning, integration, scale and institutional factors (Amit and Zott 2001). Considering value chain logic as the transformation of inputs in products (Stabell and Fjeldstad 1998), supply chain is recognized as a "network of organizations involved, from the supplier of the supplier until the client of the client, on the different processes that produce value in the form of products and services for the final client" (Serpell and Heredia 2004). This model assumes that firms do business based on permanent vertical long-term relationships and sequential interdependencies between clients and suppliers, where supply chain flows, activities, technologies, systems and actors should be integrated, and the focal firm represents the integrator (Bygballe et al. 2013). Second, *value shop logic* is oriented to solve specific customer problems where interactive relationships with clients are cyclical and the firm's reputation is the key value driver (Stabell and Fjeldstad 1998). In this logic, Bygballe and Jahre (2009) state that construction firms have similar characteristics with value shop where the project is for resolving a specific issue. Hence, a project as "a temporary organization established in order to create a unique product or service" (Pellicer et al. 2013) is organized to create value for different actors (Winter and Szczepanek 2009) with reciprocal interdependences (Bygballe et al. 2013). The traditional viewpoint of project is represented as input-process-output model with a strong emphasis on the output which includes project performance measured through cost, time and quality called "iron triangle" or triple constraint (Zwikael and Smyrk 2012), and the artifacts produced by the project (Winch 2006). More recently, researchers have modeled projects as a value creation process (Winter and Szczepanek 2008, Chang et al. 2013), where the focus is on the realization of different benefits from the produced assets, such as the contribution made to the client's business, the contribution made to the contractor's business and, the contribution made to society as a whole (Winch 2006). The benefits or project's outcomes are often realized after the delivery stage (Zwikael and Smyrk 2012). This representation of a project as a temporary organization involving multiple participating firms with divergent goals and expectations from the project has been referred to as project network (or multi-firm network) (Artto et al. 2011). Third, *value network logic* relies strongly on mediating interdependences between the focal firm and its clients for facilitating exchange relationships (Stabell and Fjeldstad 1998) and creating value for the network. Hakanson and Snehota [cited by (Bygballe et al. 2013)] argue that value network "includes the notion of inter-organizational relationships that extend beyond the individual project and capture the importance of both direct and indirect relationships in the broader network of relationships". Thus, relationships to or through third parties (stakeholders and stakeholder networks) are relevant factors for business development, based on pooled interdependences (Bygballe et al. 2013). Artto et al. (2011) called this model a business network which represents a permanent

stakeholder's network for maintaining efficiency and innovativeness of each firm in long-term business relationships.
Considering that construction firms work in complex, uncertain and time pressure projects, the present study assumes that the VC process in construction is hybrid because it includes features of value chain, value shop and value network logics, where projects fundamentally are vehicles or platforms to create (and co-create) value for stakeholders. In the project management theory, this hybrid model is known as project coalition (Pryke 2004, Winch 2006) or project network (Artto et al. 2011). Consequently, this study recognizes that construction firms are PBOs where relationships between stakeholders are a significant source of VC for them in terms of overall long-term outcomes further than delivery of short-term outputs.

VALUE CREATION PROCESS IN CONSTRUCTION PROJECTS

Traditionally, the construction project's lifecycle is structured with two main stages: design and construction, however the construction project as a value creation process considers three stages: value design (design stage), value delivery (construction stage) and, value realization (operation stage). Construction project starts with an initiative (idea) related with stakeholder's needs that are transformed in a value design through concerning outputs (deliverables) and outcomes (benefits). Immediately, contract is signed for starting with construction stage (value delivery), where value design is materialized and outputs are delivered to client. In the end of this phase, project performance is commonly measured through cost, time and quality. Lastly, final product (i.e. artifact or asset) enters the operation stage, where different stakeholders receive desired benefits (outcomes) in different times. Therefore, construction projects are habitually procured by the client or owner. Many delivery models have been proposed to design and construct facilities that satisfy client needs (e.g., design-bid-build, design & construction, construction management, early contractor involvement, strategic alliance, so on). Although some models have been more successful than others depending on project type and the competences required (Forbes and Ahmed 2010), project performance also depends on relations and interactions between stakeholders, mainly client-contractor relationships. Hence, insights gained from stakeholder theory where VC is maximized through relationships with stakeholders and according to Macneil [cited by (Walker and Lloyd-Walker 2014)] who argue that "all contracts involve a relationship", three types of stakeholder relationships that impact on VC process to maximize project value are proposed, namely *transactional, cooperative* and *collaborative.*

First, *transactional value creation process* is characterized by transferring product or service across a technologically separable interface (Rahman and Kumaraswamy 2002) in which the client has a hand-off relationship with the contractor (Walker and Lloyd-Walker 2014). In this case, independent VC impacts only on delivery outputs where parties do not need to interact with others to complete their tasks, given that there are clear objectives and explicit values associated with design. Second, *cooperative value creation process* is characterized by the division of tasks, sharing or transferring of information, trust and more shared project goals among stakeholders but each actor is autonomous and independent from the others (Nissen et al. 2014). Clients and contractors understand the relevance to work to achieve project goals and overall benefits to users and other stakeholders. There are situations where one party proactively influences other parties in order to add value within the terms of the contract. In this cooperative context, independent VC impacts significantly on delivery outputs and partially on overall outcomes. Finally, *collaborative value creation*

process is characterized by stakeholders working together where strong linkages depend on a high level of trust, interactions, and shared values in order to achieve project and organizational goals (Nissen et al. 2014). These are situations where close collaboration and sharing risks are necessary to maximize value. Here, although independent value creation is performed, value co-creation is the most critical because client and contractor (and others stakeholders) collaborate from early stages to maximize jointly project value. Figure 1 demonstrates that different types of relationships between stakeholders can affect the VC process (i.e. independent VC and value co-creation) in construction projects and in consequence impact differently on project value. The adoption of a cooperative or collaborative relationships environment is fundamental to delivery outputs but mainly long-term overall outcomes for all stakeholders.

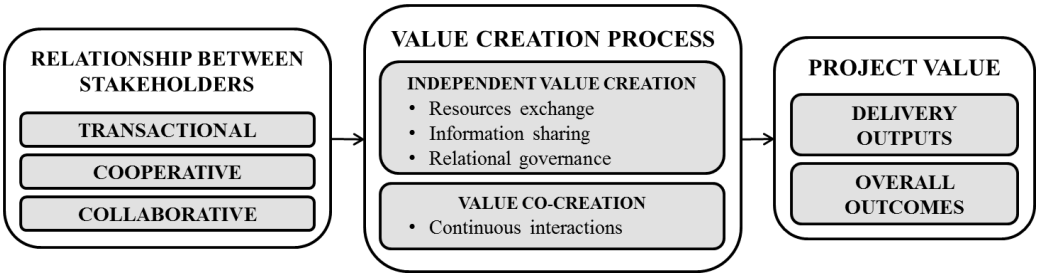

Figure 1: A conceptual framework of the value creation process in construction projects

CONCLUSIONS AND FUTURE RESEARCH

This paper starts with an overview of the current value creation literature focusing on VC approaches underpinned by different theoretical perspectives including TCE, RBV, and in particular, the stakeholder theory. Extending the traditional economic and short-term perspective on VC, the value literature highlights the importance of relationships between stakeholders (e.g. clients and suppliers) for maximizing project value (i.e. both outputs and outcomes).

The ways the parties deliver a project can be classified into two types: independent VC and value co-creation. The former refers to the scenario that the project parties have the knowledge, experience and resources to independently deliver their own share of responsibilities without the need to seek contributions from other project partners. Examples of this type include routine types of building construction, in which the parties know how to deliver their parts without the need to seek much help from other actors. In contrast, value co-creation refers to the scenario that parties need to work together. Some infrastructure and industrial projects are examples where it is not clear upfront what design achieves the objectives, significant risks exist and innovation is often required, then parties should collaborate closely to maximize project value. Both are complementary and inclusive VC categories that impact differently on project value.

In a construction context, the VC logic is hybrid (i.e. it has value chain, value shop and value network characteristics). Moreover drawing from stakeholder theory, construction firms are PBOs that may be understood as social networks where relationships between stakeholders are a significant source of value creation for them in terms of overall long-term outcomes further than delivery short-term outputs. A conceptual framework has been proposed which has taken into account different types of relationships between stakeholders (i.e. transactional, cooperative and collaborative) and its effect on the value creation process and project value

categorized as delivery outputs and overall outcomes. However, more empirical research should investigate the effects of different VC contexts on value for stakeholders and how project characteristics (e.g., uncertainty, complexity and time pressure) affect the choice of most suitable stakeholder relationship environment for maximizing project value. This future research is fundamental for aggregating more theoretical and empirical antecedents to VC theory in the construction industry.

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APPENDIX

Table 1.A: Bibliographic list of systemic literature review

Year	Selected research	Total
2014	Andersen; Cheng, Wen & Jiang; Chih & Zwikael; DeFillippi & Roser; Galvagno, Dalli & Mele; Garcia-Castro & Aguilera; Garriga; Gouillart; Hofman; Hörisch, Freeman & Schaltegger; Jaakkola & Alexander; Jacobsson & Roth; Johansen, Eik-Andresen & Ekambaram; Jylhä & Junnila; Kopmann; Leavy; Lecoeuvre & Turner; Lloyd-Walker, Mills & Walker; Love et al; Maniak, Midler, Lenfle & Pellec-Dairon; Martinsuo & Killen; Miguel et al; Murphy, Arenas & Batista; Palacios, Gonzalez & Alarcón; Pinho et al; Polo Peña, Frías & Rodríguez Molina; Ranjan, & Read; Read, Jin & Fawcett; Ritala & Tidström; Rod, Lindsay & Ellis; Skilton; Teti et al; Winch; Zwikael & Chih.	34
2013	Aapaoja, Haapasalo & Söderström; Chang et al; Di Gregorio; Elgharbawy & Abdel-Kader; Grönroos & Voima; Gummerus; Harrison & Wicks; Jylhä & Junnila; Keung & Shen; Kowalkowski, Witell & Gustafsson; Leavy; Lew & Sinkovics; Li & Qian; MacDonald, Walker & Moussa; Mutka & Aaltonen; Ng, Ding & Yip; Nielsen, Sort & Bentsen; Pekuri, Pekuri & Haapasalo; Ramaswamy & Ozcan; Roser, DeFillippi & Samson; Too &Weaver; Vega-Vazquez, Revilla-Camacho & Cossío-Silva; Voss & Kock.	23
2012	Austin & Seitanidi (a,b); Biggemann & Buttle; Chiang & Nunez; Dalcher; Doloi; Eweje, Turner & Müller; Golnam et al; Hadaya & Cassivi; Hammervoll; Huovila, Hyvärinen & Porkka; Kruehler, Pidun & Rubner; Lin,Wen & Yu; Minoja; Ng & Smith; Nord; Patanakul & Shenhar; Patanakul, Shenhar & Milosevic; Salvatierra-Garrido, Pasquire & Miron; Tillmann et al (a, b); Wilkin; Zwikael & Smyrk.	23
2011	Anvuur, Kumaraswamy & Mahesh; Artto at al; Echeverri & Skålén; Edvardsson, Tronvoll & Gruber; Frow & Payne; Grönroos; Hammervoll; Mele; O'Cass & Ngo; Pasquire & Salvatierra-Garrido; Velamuri, Neyer & Möslein.	11
2010	Cheung, Myers & Mentzer; Corsaro & Snehota; Ertimur & Venkatesh; Freeman; Freeman et al; Heinonen et al; Kumaraswamy, Anvuur & Smyth; Ng, Nudurupati & Tasker; Parmar et al; Pitelis & Vasilaros; Rooke; Thyssen et al; Vorakulpipat, Rezgui & Hopfe; Wagner, Eggert & Lindemann.	14
2009	Bygballe & Jahre; Cooke-Davies, Crawford & Lechler; Cooke-Davies; Eskerod & Riis; Frigo & Ramaswamy; Garvin; Hammervoll; Leiringer, Green & Raja; Liu, Luo & Liu; Moore & Manring; Pitelis; Sarkar, Aulakh & Madhok; Thomas & Mullaly.	13
2008	Ahola, Laitinen, Kujala & Wikström; Lee-Kelley & Sankey; Payne, Storbacka & Frow; Söderholm, Gemünden &Winch; Vargo & Lusch; Vargo, Maglio & Akaka; Winter & Szczepanek.	7
2007	Lepak, Smith & Taylor; Mathur, Jugdev & Fung; Patanakul & Shenhar; Priem; Rezgui; Shenhar et al (a, b); Wang & Wei.	8
2006	Cheung, Yiu, & Chim; Eggert, Ulaga & Schultz; Jugdev & Mathur; Koskela, Howell & Lichtig; Lee & Cavusgil; Moller; Oyetunji & Anderson; Ulaga & Eggert; Winch; Winter, Andersen, Elvin & Levene.	10
2005	Colledge; Emmitt, Sander & Christoffersen; Håkansson & Jahre; Miranda & Kavan; Ulaga & Eggert.	5
2004	Cheng et al; Dekker; Haksever, Chaganti & Cook; Prahalad & Ramaswamy; Shenhar; Stewart & Mohamed.	6
2003	Winch, Courtney & Allen.	1
2002	Roberts & Dowling.	1
2001	Amit & Zott; Jensen; Lazzarini, Chaddad & Cook; Miller & Lessard.	4
2000	Bowman & Ambrosini.	1
Before 2000	Ghosh & John (1999). Dyer & Singh; Gassenheimer, Houston & Davis; Madhok & Tallman; Stabell & Fjeldstad; Tsai & Ghoshal (1998). Cox & Thompson; Dyer; Nahapiet & Ghoshal (1997). Cox; Moran & Ghoshal (1996). Normann & Ramirez; Zajac & Olsen (1993). Borys & Jemison (1989). Macneil (1985).	15
	Total	176