

Value-creating relationships: focusing on the human level

Alexander Bode · Katja Müller

Received: 30 October 2012 / Accepted: 26 June 2013 / Published online: 14 July 2013
© Springer-Verlag Berlin Heidelberg 2013

Abstract Enhancing a firm's value creation is one of today's most discussed topics in management practice and science. Many approaches start by enhancing value creation while looking at operations and/or logistics of a firm, for example, *a lean production*. Furthermore, there is an increasing trend for cooperation. Close business-partner relationships are necessary while facing the challenges of changing business environments, inherent complexity, and dynamics of markets. We suggest that while the trade-off between competition and cooperation has to be decided on an organizational level, the individual level is crucial for value creation and success within cooperative forms of business. According to the call for micro-foundation, we will show how value creation can be improved within business-partner relationships by looking at the social behavior of individuals and human-level approaches. Accordingly, the overarching question in this paper is: *Which models can be used for improving business-partner relationships aiming at an increasing value creation within cooperation*. Answering this question, we consider people-oriented management approaches as a basis for the emphasis of the human level within cooperation, arguing that social exchange theory can complement the existing resource-based and relational view. As a result, we develop a micro-foundation framework including humans and their individual assets, exchange resources, and characteristics of the relationships as impact factors for value-creating relationships. Based on this literature-based investigation,

we derive implications for further research and management practice.

Keywords Business-partner relationships · Value creation · Micro-foundation · Social exchange theory · People orientation · Resource-based and relational view

1 Introduction

Creating value is undoubtedly one of the most important topics for strategic management. This is shown by classic management approaches like taylorism [1] or the human relation approach [2] but also by today's management approaches like shareholder value [3] or lean management [4]. The analysis of 47 articles (see [Appendix](#)) published in four different high-ranked scientific management journals including the terms *value added*, *value creation* and/or *creation of value* published from 1990 to 2013 confirms the finding of Priem [5]. Priem surveys different value creation concepts used in literature: There is no general term for value creation used in literature, and sometimes definitions are missing entirely and are taken for granted [e.g., 6, 7]. According to the call for micro-foundation [8–11] that claims understanding human aspects within organizations in order to explain organizational management [8] and the lack of knowledge of how cooperative activities between partners can be optimized [12], we define a concept of value creation within business-partner relationships. We aim at the development of a micro-foundation framework for value creation complementing existing resource-based and relational approaches secondly. Thirdly, we show implications for business-partner relationships in operations and logistics.

For developing a micro-foundation framework, we choose social exchange theory as a reference because it has

A. Bode · K. Müller (✉)
Technische Universität Darmstadt, Hochschulstraße 1,
64289 Darmstadt, Germany
e-mail: mueller@bwl.tu-darmstadt.de

the potential to explain “high-quality relationships” [13] and has already been used in the context of business-partner cooperation [e.g., 14]. Since micro-foundation “calls for a healthy and methodological pluralism” [15], we realized a broad literature research analyzing links between *social exchange theory* and *cooperation* found in the database Business Source Premier and complementing those links through an in-depth investigation of used constructs. As a result, we develop a framework capturing individual human assets, exchange resources, and characteristics of relationships as a micro-foundation for value creation within business-partner relationships.

2 Value creation within business-partner relationships: emphasizing the human level

2.1 Value creation within business-partner relationships

Focusing on the strategic management research, e.g., Bri-doux et al. [7] set on resource-based view explaining competitive advantages and value creation by exploiting internal resources [16–18]. At the same time, accompanying the scientific strategic management debate, value creation has become one of the core concepts of practical management approaches like lean management [19–21] and/or supply chain management [22–25]. Regarding the growing importance of intra- and interfirm cooperation due to the challenges of changing business environments and inherent complexity and dynamics of markets, we examine value creation in business-partner relationships in this article.

The value creation concept itself provides different definitions and discussed perspectives. While Ghosh and John [26] develop a framework for analyzing value in cooperative relationships, Hammervoll appreciates that this framework enhances the perspective of interorganizational views but criticizes that, inter alia, the authors discuss two levels of value creation (joint profits in relationship and profits for firms as single actors) but then solely concentrate on a single firm’s profit [23].

Regarding the growing acceptance and increasing spread of lean management approaches [27–29], we will apply the lean management definition of value creation stated by Hines et al. [30, cf. 31]: “The cost-value equilibrium denotes the situation whereby the product services provides exactly as much value, which the customer is willing to pay for, as the product costs.” Therefore, there are two ways for value creation. First, value is created by reducing internal waste, and second, value is increased by additional features or services offered to the customer who values them. The authors explain that these additional

features and services can be shorter delivery time or smaller batches, “which might not add additional cost, yet add customer value” [30].

In accordance, investigating the resource-based view, Newbert [33] defines in differentiating competitive advantage and performance the concept of economic value as prior to competitive advantage referring to Peteraf and Barney [34]. Peteraf and Barney [34] define the economic value created “in terms of the difference between perceived benefits, or customer willingness-to-pay, on the one hand, and economic costs on the other”. They describe this approach as efficient (“To create more value than its rivals, an enterprise must either produce greater benefits for the same cost or the same benefit for lower costs” [34]) and due to the similarity of the economic concept of total surplus as a multi-perspective notion (“the value that an enterprise creates has the potential to enhance the welfare of all of its stakeholders” [34]). Newbert [35] argues that the exploitation of a firm’s resource-capability combination enables enterprises to attain an “efficiency-based competitive advantage [...] by selling more units at the same margin (i.e., low price) or by selling the same number of units at a greater margin (i.e., parity price)”.

The notion of value creation in terms of enhancing net value (perceived customer willingness-to-pay less economic costs) can be seen as an established concept for practitioners as well as a scientific basic for resource-based view(s).

Assuming that business-partners focus on customer demand [34] or customer satisfaction [35], they focus on value creation. Therefore, they reduce waste and offer special value to customers. Hence, value creation is a common goal within participating companies forming a relationship. This is on one hand a joint perspective of involved business-partners and on the other hand also the individual firm’s perspective. Applying this definition enables us to look at value creation from a joint perspective.

According to the increasing importance of cooperation [36, 37], Dyer and Singh suggest that firm’s resources may span firm boundaries founding the relational view of competitive advantage and define relational rents as supernormal profits “jointly generated from an exchange relationship that cannot be generated by a firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners” [38]. They define four sources of supernormal profit returns within business-partner relationships: (1) relation-specific investments, (2) interfirm knowledge-sharing routines, (3) complementary resource endowments, and (4) effective governance.

We will concentrate on both introduced concepts of value-creating mechanisms within business-partner

relationships. We apply either the net-value approach within resource-based view and lean management as practitioner's concept or the relational view as a theoretical framework for realizing competitive advantage through cooperation. This extended view satisfies the notion of Huemer: "value creation occurs between, as well as within, firms in supply relationships" [39].

The trade-off between cooperation and competition as the general question according to the increasing cooperation of firms because of high business dynamics and market volatility can only be answered on an organizational level. However, we assume that value creation within business-partner relationships is realized on the human level (i.e., managers and employees). Therefore, we look at the individuals' contribution to create value in the following chapter.

2.2 Value creation focusing on the human level

While researchers approve the role of humans as a resource, for example, within resource-based view [e.g., 16] or as important for knowledge-sharing routines as a mechanism for generating relational rents within relational view [e.g., 40], lean management can be characterized as a widely spread practical management approach relying on the individual's potential [4]. Hence, we focus on lean management as a people-oriented management approach explaining value creation on a human level.

Acknowledging that there are several conceptions about lean management, lean production, just-in-time, continuous improvement process, etc. [e.g., 41–43], we refer to a comprehensive management approach founding on the Toyota Production System [44]. Firms following this vision aim at the improvement of quality, cost, and time parameters for creating value. Liker [20] explains the implementation of lean management following the Toyota way in focusing on the four levels: (1) philosophy, (2) process, (3) people and partner, and (4) problem solving. Looking at the specifications of those four categories in Table 1 shows that individuals and their potentials are crucial for all four levels. Value creation in terms of waste reduction or creating special value is realized by humans who carry out problem-solving routines or generate creative ideas for innovation and process improvement. Sugimori et al. [45] furthermore describe the respect-for-human system next to the just-in-time production as one of the "major distinctive features". It gets obvious that merely focusing on processes is not enough for being lean. A long-term philosophy, continuous exploitation of humans' potential, and an ongoing willingness to learn are crucial.

Relying on individuals' potential and their continuous further development characterizes lean management as a people-oriented management approach [46, 47].

Table 1 Lean management approach: four categories [51]

Category	Specification
Problem solving	Continuous improvement and organizational learning
People and partners	Respecting, challenging, and growing people and partners
Process	Value creation by eliminating waste
Philosophy	Long-term thinking as foundation for management decisions

Researchers have already examined employees as success factors of lean approaches. Thun et al. [48] find empirically that individual's capabilities and training facilitate implementation of lean management. Other authors also contemplate humans as cornerstones or important elements of lean approaches [29, 43, 47].

People-oriented concepts take distinctive competences, capabilities, personalities, and attitudes of every individual into account. Value creation is enabled by the people. Creative ideas gathered and realized in workshops for improving shopfloor, logistics, and administrative processes are traced back to those individual capabilities and wills for improvement. Lander and Liker highlight this individual view and derive the necessity for a performing social system as a basis for value creation by being lean [49].

Regarding the importance of people and the fact that many firms have trouble in implementing lean management as their value-creating strategy [28, 49, 50], we focus on the management of the human level and human relationships to improve (lean) business-partnerships.

3 Using social exchange theory for complementing relational views of value creation

3.1 Social exchange theory in business-partner relationships

More than 30 years ago, Van de Ven has already highlighted the human level in explaining the development and functionality of interorganizational business-relationships. He states a theoretical framework arguing that those relationships are social action systems comprising the following three aspects: (1) Behavior among members is aimed at attaining collective and self-interest goals, (2) interdependent processes emerge through division of tasks and functions among members, (3) an interorganizational relationship can act as a unit and has a unique identity additionally to individual members' identities [52]. Applied to value creation within dynamic business environments and increasing cooperation within business-

partners value creation might be a collective goal. As an individual self-interest goal, we assume job performance to be increased like value creation. Interdependent processes emerge through involved business-partners on human levels, who develop routines (e.g., knowledge-sharing routines referring to relational view). The development of an interorganizational identity or commitment [e.g., 12, 53] might be drivers for value creation following a joint perspective assuming that a common identity and commitment facilitate performance by transparency about purpose of cooperation [53] on the human level.

Focusing value creation in business-partner relationships and regarding their underlying social action systems, we will use social exchange theory (SET) which roots in sociology and social psychology [54]. Frenzen and Nakamoto [55], who investigate SET in the context of information flow within cooperation, find that information flow depends on the decisions of actors to cooperate and the structural characteristics of the relationship. We therefore assume that SET also has the potential to identify value-creating aspects and mechanisms. Defining SET, we use the assumptions stated by Burns [56]:

1. Social behavior can be explained in terms of rewards (rewards are goods or services, tangible or intangible, that satisfy a person's needs or goals).
2. Individuals attempt to maximize rewards and minimize losses or punishments.
3. Social interaction results because others control variables or necessities and can therefore reward a person. In order to induce another to reward him, a person has to provide rewards to the other in return.
4. Social interaction is thus viewed as an exchange of mutually rewarding activities in which the receipt of a needed variable (good or service) is contingent on the supply of a favor in return (usually immediate).

Thibaut and Kelley [57] further introduce the concept of comparison levels that explain the retention of humans in exchange relationships in comparing current relationships with other potential relationships.

Having found existing links between social exchange theory and business-partner relationships in our literature research, we deepen those constructs and develop a framework for investigating business-partner relationships on a human level. While micro-foundation is done very fragmented so far [e.g., 53], we will develop a framework using social exchange theory in the following. For explaining value creation within business-partner relationships, we look at three units: (1) unit of individual human assets regarding that an involved person has designated competencies, attitudes that influence exchange within relationships; (2) unit of exchange resources regarding the resource flow which can comprise intangible resources like

information or tangible resources like money; and (3) characteristics of the relationship assuming that structural and cultural aspects have the potential to influence the exchange relationship.

3.2 Individual human assets

Tangible and intangible assets of humans are crucial for exchange relationships because according to SET humans hold resources that satisfy other's needs and goals. We suggest that according to SET, there are four aspects support value creating on an individual level by facilitating individual exchanges.

3.2.1 Absorptive capacity

While Cohen and Levinthal [58] apply absorptive capacity as the ability of a firm to identify and evaluate new, external knowledge, assimilate it, and apply it to a commercial end on a firm-level. They deduce it from an individual human level. Prior knowledge and experience is important for identifying and evaluating new knowledge. Following the knowledge spiral developed by Nonaka [59], new knowledge can be created by transforming tacit and explicit knowledge. We assume that regarding value creation in business-partner relationships, prior knowledge and experience therefore are important. They help involved individuals evaluating information and identifying mechanisms for improvement. In lean business-partner relationships, this can be the transfer of an established improvement to the partner due to recognition of an individual who joined the improvement process and transferred his new knowledge.

3.2.2 Individual exchange attitude

We assume an individual exchange attitude to be important as this exchange orientation can be strong or low [13]. Individuals with strong exchange attitudes will be more likely to exchange resources and cooperate. Individuals with a low exchange attitude will be less willing to exchange and to cooperate [60, 61]. Most likely value creation in business-partner relationships is mainly improved by individuals with a high exchange orientation.

3.2.3 Individual expectations

According to Thibaut and Kelley [57], individual expectations are important for the intention to stay within a relationship [see further: 62, 63]. Due to the fact that individuals expecting the end of an existing relationship will reduce their efforts, we assume this concept to be important for value creation within business-partner

relationships. Most likely positive individual expectations will facilitate value creation.

3.2.4 Individual work attitude and personality traits

Regarding individual attitudes and personality traits, we assume two concepts to be relevant for value creation. First, individual work attitudes have influence on the working behavior [64–66] and therefore as well on the behavior within exchange relationships. Looking second at individual personality traits, we assume the concept of proactive personality to be relevant. Proactive personality is defined as a stable behavioral tendency of a person who effects environmental change and therefore acts actively rather than passively [67]. While proactive personality affects performance and success of individuals [68–72], we assume proactive individuals to better identify and realize opportunities for value creation within business-partner relationships. Additionally one important aspect is the fit of work attitude as well as the level of proactivity within a relationship. So find the findings of Zhang, Wang and Shi who show a positive effect on work outcome in regard to the leader-follower congruence of proactive personality levels [73].

3.3 Exchange resources

According to SET, resources are the reason for exchange. In the following, we look at the exchange resources stated by Foa and Foa [74]. The authors categorize the resources regarding their degree of particularism (high particularism means that the value of a resource depends highly on the persons involved and their relationship) and their degree of concreteness (ranges from concrete to symbolic where information due to communication and interpretation, e.g., is more symbolic than goods or services that are exchanged). In Table 2, we have listed the six resources, adapted them to business-partner relationships, and noted their degree of particularism and concreteness. Love has been replaced by respect, appreciation, and trust. This seems appropriate as these are the most particularistic resources

that can be exchanged in a business context. There is a strong link between love and status as Foa and Foa [75] already mentioned in their work. However, we listed both resources separately assuming that resources derived from love are generally permanent in contrast to the exchange of status resources like a praise, e.g., which can be situational. We have extended the original resource information because in a business context the exchange of knowledge becomes increasingly important [76]. We further assume that communication is an important aspect of value creation within business-partner relationships.

In their review of SET, Cropanzano and Mitchell [13] point out that resources that are less particularistic and more concrete are exchanged short-term, while resources that are more particularistic and more symbolic than concrete tend to be exchanged open-ended. Therefore, we assume that respect, status, explicit, and implicit knowledge—as well as communication—might found long-term business-partner relationships and therefore are able to create value for involved parties. Regarding Cropanzano and Mitchell [13], we have complemented the aspect of time horizon in Table 2.

3.4 Characteristics of relationships

Considering the characteristics of relationships, we look at established concepts. Palmatier [77] provides a comprehensive basis characterizing business-partner relationships.

3.4.1 Relationship quality

Considering customer value from a relationship-marketing perspective, Palmatier [77] states relationship quality as one relational driver influencing customer value. Founding on prior research, he applies relationship quality as a higher-order construct consisting of commitment, trust, reciprocity norms, and exchange efficiency. While we treat trust as an exchange resource, we agree with commitment to a relationship, reciprocity norms, and exchange efficiency as characteristics of a relationship. Lawler and Yoon define in their investigation of how and when humans

Table 2 (Adapted) Exchange resources [13, 74]

Resources	Adapted to business-partner relationships	Particularism	Concreteness	Time horizon for exchange
Love	Respect, appreciation, trust	High	Middle	Open-ended
Status	Praise, reputation	Middle	Low	Open-ended
Information	Explicit and implicit knowledge, communication	Middle	Low	Open-ended
Money	Money	Low	Middle	Temporary
Goods	Goods	Middle	High	Temporary
Services	Services	Middle	High	Temporary

become committed to their relationships. According to Kanter, commitment is “the attachment an individual feels to a collective entity such as a relation, or group, or organization” [78, 79]. Therefore, a high attachment to the business-partner relationship might be accompanied by a higher effort by the individuals. Reciprocity norms might be seen as one possible operationalization of the relational view’s knowledge-sharing routines. These reciprocity norms can explain individual behavior within relationships. Exchange efficiency is closely linked to the lean approaches. Therefore, increasing efficiency in exchanges means reducing waste and improving productivity.

The three aspects of commitment, reciprocity norms, and exchange efficiency can be transferred from a marketing perspective to a comprehensive management perspective as both perspectives focus on the human level.

3.4.2 Contact density and the strength-of-ties approach

Palmatier [77] furthermore examines contact density as a driver for customer value from a relationship-marketing perspective. He operationalizes contact density as the number of relational ties. It is similar to the strength-of-tie concept and comprises time spend in relationship,

Table 3 Value creation realized on an individual level

Value creation approaches		Social exchange theory realizing value creation on an individual level		
		Individual human assets	Exchange resources	Characteristics of relationships
Value creation from a resource-based view (equals value creation in lean management approaches)	Value creation by offering the same benefit for lower costs (reducing internal waste)	Individual absorptive capacity enables individuals to apply (new) knowledge and to improve workflows	Explicit and implicit knowledge enables individuals to improve workflows	Relations quality and common identity might create a reciprocal obligation supporting each other in improving workflows; increasing exchange efficiency (part of relationship quality) is obviously value creating
	Value creation by offering greater benefits to the same costs	Individual absorptive capacity enables individuals to apply (new) knowledge and find/develop additional benefits	Explicit and implicit knowledge enables individuals to improve product/service features; customer is valued and treated respectfully	Relationship quality and common identity might create a reciprocal obligation improving products and services
Value creation in (inter-)firm relations focusing the relational view (four mechanisms)	Relation specific investments	Investments can increase individual expectations (signals long-term relationship; effort will be worth it)	Common investment requires financial input; while a trust exchange is needed	Contact authority enables decision-making within a relationship, e.g., about common investments
	Interfirm knowledge-sharing routines	Individual exchange and work attitudes, as well as personality traits will influence the development of knowledge-sharing routines	Exchange of explicit and implicit knowledge and information; direct interaction of individuals enables exchange of respect, appreciation and trust	Relationship quality, contact density, contact authority, and common identity can facilitate the development and the maintenance of knowledge-sharing routines
	Complementary resources	Individual absorptive capacity enables individuals to identify and apply complementary resources	Goods and services are exchanged but knowledge can be a complementary resource as well	Contact authority enables decision-making within a relationship (e.g., allocation of resources)
	Effective governance	Individual exchange and work attitudes as well as personality traits will influence behavior of involved individuals; informal exchange will develop additionally	The exchange of <i>love-</i> and <i>status</i> resources will influence and facilitate the effective behavior of individuals; knowledge about partners facilitates effective governance; financial input might act as an incentive for effective behavior	Relationship quality, contact density, contact authority and common identity can facilitate the effective governance of relationships

intensity, intimacy, and reciprocal services within ties [80, 81]. Both concepts have in common that structural aspects are regarded. We assume that relationships having higher contact densities and stronger ties have the potential to create more value because they are able to exchange resources strengthening the relationship like mentioned above.

3.4.3 Contact authority

Contact authority is the third driver for customer value Palmatiers examines in his work on relationship marketing. He states contact authority indicates the decision-making capability of relational contacts. This aspect therefore parallels the concept of core or nodal firms [82, 83]. Dyer and Nobeoka investigate learning mechanisms within Toyota’s supplier network. Doing this they define Toyota as a core firm. Toyota is the ‘core’ or nodal firm in the network because it has direct ties to all other firms in the network, has economic interdependencies with all partners, and “has the most to gain from developing learning routines that increase the efficiency of the entire production network” [82]. Another example for a core firm is Airbus in the aerospace industry with its complex supplier network [84, 85].

We assume that this aspect as well is important for value creation within business-partner relationships. On an individual human level, it might be important if partners feel equal.

3.4.4 Common identity

McLeish and Oxoby [86] find in their experimental setting that individuals are most cooperative when they share a common identity. We assume that this concept parallels the commitment to a relationship but comprises furthermore the aspect of a common goal. In their analysis, they find that fair behavior is important for facilitating cooperation. Hence, reciprocity norms can give orientation here. Mael and Ashforth [87] state that a high organizational identification means individuals experience success or failures as their own. Therefore, a common identity within an exchange relationship enables individuals to experience success and to be motivated for further efforts.

4 Implications for managing business-partner relationships in operations and logistics

In the previous chapter, we have shown which aspects are starting points for improving value creation on a relational level. We have explained that social exchange theory indicates which individual human assets are important for interfirm exchanges, what kind of resources are exchanged, and which aspects characterizing the relationships themselves are important for high-quality exchange relationships.

In Table 3, we have linked mechanisms of value creation from a theoretical (resource-based and relational view) and a practical (value creation in lean management

Fig. 1 Framework for value creation by managing human exchange relationships

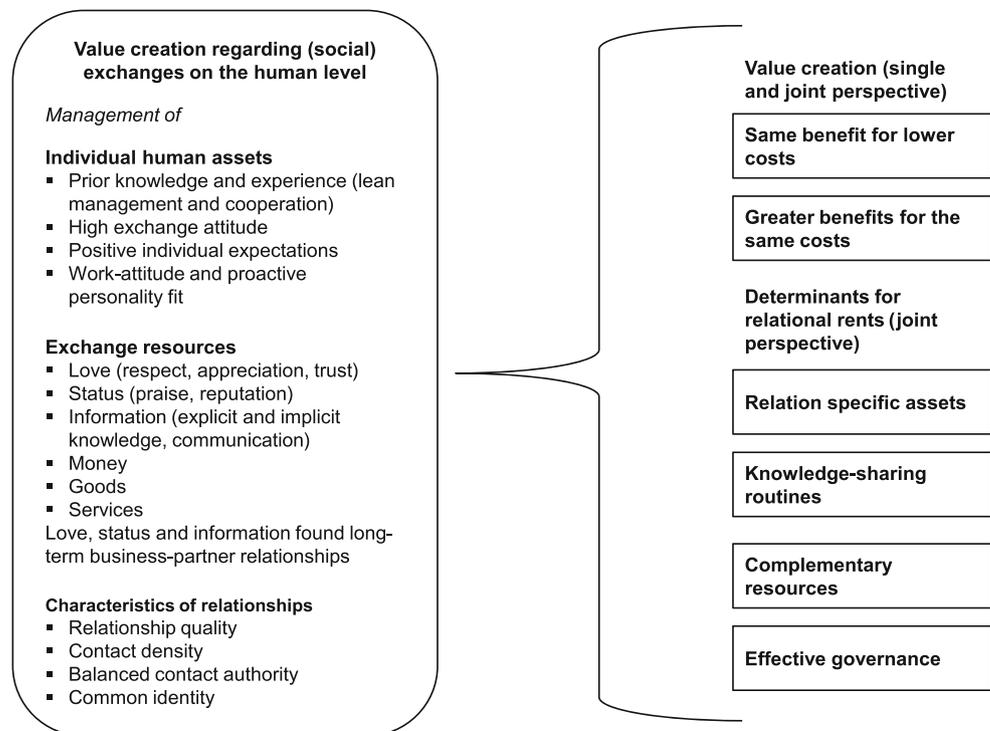


Table 4 Implications for managing business-partner relationships regarding the individual level

Individual level	Implications for management	
Individual human assets	Absorptive capacity	Prior knowledge and experience are important for assuming and applying new and extern knowledge; Hence, we suggest that individuals responsible for cooperation in operations and logistics have experience in realizing improvements and as well as in cooperation with (external) partners. Individuals can be selected founding on this or can be coached for those tasks
	Individual exchange attitude	People with a high exchange attitude should be selected for positions closely involved in business-partner relationships
	Individual expectations	Individual expectations can be managed by transparency about intention and planned duration of the relationship
	Individual work attitude and personality traits	Proactive personalities can—notably in initial stages—start and improve cooperation
Exchange resources	Respect, appreciation, trust/status, praise, reputation	Management can act as role model and courage individuals to respect and trust the preferred business-partners
	Explicit and implicit knowledge, communication	Common trainings and workshops facilitate exchange of information and knowledge
	Money/goods/services	Exchanges of money, goods and services are underlying; flows of goods and services are improved within business-partner relationships
Characteristics of relationships	Relationship quality	Common workshops, trainings, and events may improve commitment to the relationship; reciprocity norms can be analyzed and improved; exchange efficiency can be improved as a common project, e.g., developing key performance indicators
	Contact density and strength of ties	Enhancing contact density broadens the range of possible contact persons
	Contact authority	It is important to check which party owns contact authority; reflection how contact authority should be applied
	Common identity	Defining common goals and realizing closeness, e.g., by common workshops, trainings, or expert exchange

approaches which equals value creation in the resource-based view) with those mechanisms to the three identified components of exchange relationships founding on social exchange theory. Hence, we show with this concept how individual human assets, exchange resources, and relationship characteristics facilitate or constitute value-creating relationships. We find that the importance for value creation of the elements on the three stated individual levels (individual human assets, exchange resources and characteristics of the relationship) varies and that only a comprehensive approach is able to explain value creation on the human level.

As a theoretical implication for managing business-partner relationships notably in operations and logistics, we state that social exchange theory can act as a framework for micro-foundation by explaining value creation within relationships on a human level. The stated framework operationalizes resource-based and relational view.

Practical implications focus on the management of relationships that involve or are close to operations and logistics. This limitation is important because we have discussed the support of improving workflows, processes, and product features. The mechanisms following our approach for value

creation in operations and logistics business-partner relationships are shown in Fig. 1. According to these mechanisms following our value creation concept, we derive in Table 4 concrete implications for management to increase value creation regarding our approach.

5 Conclusion

Increasing competition and environment dynamics forces firms to enhance value creation and extend cooperation with business-partners in many fields. In this article, we argue that value creation can be enhanced between business-partnerships. We find that the individual level and particularly the aspects derived from social exchange theory complement existing practical and scientific approaches for value creation. As a result, we have enhanced theory by the development of a micro-foundation framework explaining value creation in business-partner relationships.

While the trade-off between cooperation and competition between specific firms should be decided on an organizational level, we explain using a stated framework how

relationships can create value. We therefore derive individual assets, exchange resources, and characteristics of relationships as three levels affecting value creation from a single and joint perspective in business-partner relationship. In our concept of value creation on a human level, we find that different aspects of the three stated levels (individual human assets, exchange resources, and characteristics of relationships) affect the types of value creation mechanisms differently. We find that only a comprehensive approach is able to explain value creation on a human level.

While we have introduced a framework based on a literature review, we recommend the development of a mixed-method design including variables derived from our micro-foundation framework for further research. Therefore, business-partnerships can be examined using case

studies, and our framework can be evaluated and further developed.

With this article, we have on the one hand developed a concept of value creation on an individual level linking resource-based and relational view in an interdisciplinary way with social exchange theory from sociology and social psychology. On the other hand, we show practitioners according to our theoretical findings approaches for improving value creation in business-partner relationships.

Acknowledgments We would like to thank the anonymous reviewer for his/her valuable comments.

Appendix

No.	Title	Author(s)	Journal	Publication	Reason for value creation
1	Organizational integration of process innovation	Ettlie JE, Reza EM	Academy of Manag Rev	(1992) 35: 795–827	Innovation
2	Improving the effectiveness of gainsharing: the Role of fairness and participation	Cooper CL, Dyck B, Frohlich N	Organ Sci	(1992) 37: 471–490	Productivity
3	Macrocultures: determinants and consequences	Abrahamson E, Fombrun CJ	Academy of Manag Rev	(1994) 19: 728–755	Input–output structure
4	International-business political behavior: new theoretical directions	Boddewyn JJ, Brewer TL	Academy of Manag Rev	(1994) 19: 119–143	Productivity
5	Shareholder value creation during R&D innovation and commercialization stages	Kelm KM, Narayanan VK, Pinches GE	Academy of Manag J	(1995) 38: 770–786	Cash flows
6	Competitiveness through Management of diversity: effects on stock price valuation	Wright P, Ferris SP, Hiller JS, Kroll M	Academy of Manag J	(1995) 38: 272–287	Resources
7	Modes of theorizing in strategic human resource management: tests of universalistic, contingency, and configurations. Performance predictions	Delery JE, Doty, DH	Academy of Manag J	(1996) 39: 802–835	Cash flows
8	Social capital and value creation: the role of intrafirm networks	Tsai W, Ghoshal S	Academy of Manag J	(1998) 41: 464–476	Innovation
9	Resources, transactions and rents: managing values through interfirm collaborative relationships	Madhok A, Tallman SB	Organ Sci	(1998) 9: 326–339	Cooperation
10	Production of collective action in alliance-based interorganizational communication and information systems	Monge PR, Fulk J, Kalman ME, Flanagan AJ, Parnassa C, Rumsey S	Organ Sci	(1998) 9: 411–433	Shared (public) goods from cooperation
11	Markets, firms and the process of economic development	Moran P, Ghoshal S	Academy of Manag Rev	(1999) 24: 390–412	Resource combination and exchange
12	Developmental financial institutions as catalysts of entrepreneurship in emerging economies	George G, Rabhu GN	Academy of Manag Rev	(2000) 25: 620–629	Innovation
13	Balancing act: learning from organization practices in cultural industries	Lampel J, Lant T, Shamsie J	Organ Sci	(2000) 11: 263–269	Diverse
14	Internal capital markets: benefits, costs, and organizational arrangements	Liebeskind JP	Organ Sci	(2000) 11: 58–76	Efficiency
15	Linking organizational values to relationships with external constituents: a study of nonprofit professional theaters	Voss GB, Cable DM, Voss ZG	Organ Sci	(2000) 11: 330–347	Values as beliefs

continued

No.	Title	Author(s)	Journal	Publication	Reason for value creation
16	Across the great divide: knowledge creation and transfer between practitioners and academics	Rynes SL, Bartunek JM, Daft RL	Academy of Manag J	(2001) 44: 340–355	Cooperation
17	Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty	Waldman DA, Ramirez GG, House RJ, Puranam P	Academy of Manag J	(2001) 44: 134–143	Net profit and costs
18	Information policy: shaping the value of agency relationships	Jacobides MG, Croson DC	Academy of Manag Rev	(2001) 26: 202–223	Information
19	Reimagining the differentiation and integration of work for sustained product innovation	Dougherty D	Organ Sci	(2001) 12: 612–621	Problem solving
20	The assimilation of knowledge platforms in organizations: an empirical investigation	Purvis RL, Sambamurthy V, Zmud RW	Organ Sci	(2001) 12: 117–135	Knowledge
21	Designing virtual customer environments for new product development: toward a theory	Nambisan S	Academy of Manag Rev	(2002) 27: 392–413	Resource combination and exchange
22	Motivating individuals and groups at work: a social identity perspective on leadership and group performance	Ellemers N, De Gilder D, Haslam SA	Academy of Manag Rev	(2004) 29: 459–478	Motivation
23	Stakeholder theory and “the corporate objective revisited”	Freeman RE, Wicks AC, Parmar B	Organ Sci	(2004) 15: 364–369	Motivation
24	Time to break up: social and instrumental antecedents of firm exits from exchange	Rowley TJ, Greve HR, Rao H, Baum JAC, Shipilov AV	Academy of Manag J	(2005) 48: 499–520	Cooperation
25	Orchestrating innovation networks	Dhanaraj C, Parkhe A	Academy of Manag Rev	(2006) 31: 659–669	Innovation
26	Shifting the lens on organizational life: the added value of positive scholarship	Roberts LM	Academy of Manag Rev	(2006) 31: 292–305	Human development
27	A resource-based theory of market structure and organizational form	Van Witteloostuijn A, Boone C	Academy of Manag Rev	(2006) 31: 409–426	Resources
28	Why do users contribute to firm-hosted user communities? The case of computer-controlled music instruments	Jeppesen LB, Frederiksen L	Organ Sci	(2006) 17: 45–63	Innovation
29	The knowledge-based view, nested heterogeneity, and new value creation: philosophical considerations on the focus of knowledge	Felin T, Hesterly WS	Academy of Manag Rev	(2007) 32: 195–218	Humans, knowledge
30	Relational archetypes, organizational learning, and value creation: extending the human resource architecture	Kang SC, Morris SS, Snell SA	Academy of Manag Rev	(2007) 32: 236–256	Customer benefit, organizational learning
31	Value creation and value capture: a multilevel perspective	Lepak DP, Smith KG, Taylor MS	Academy of Manag Rev	(2007) 32: 180–194	Benefit and exchange
32	A consumer perspective of value creation	Priem RL	Academy of Manag Rev	(2007) 32: 219–235	Customer benefit
33	Managing firm resources in dynamic environments to create value: looking inside the black box	Sirmon DG, Hitt MA, Ireland RD	Academy of Manag Rev	(2007) 32: 273–292	Customer benefit, marginal return
34	Do cultural differences matter in mergers and acquisitions? A tentative model and examination	Stahl GK, Voigt A	Organ Sci	(2008) 19: 160–176	Expectations from capital markets
35	An interpretive systems view of knowledge investments	Reus TH, Ranft AL, Lamont BT, Adams GL	Academy of Manag Rev	(2009) 34: 382–400	Knowledge
36	The interdependence of private and public interests	Mahoney JT, McGahan AM, Pitelis CN	Organ Sci	(2009) 20: 1034–1052	Innovation, efficiency, market-structures, agency
37	Value of strong ties to disconnected others: examining knowledge creation in biomedicine	McFadyen MA, Semadeni M, Cannella, Jr AA	Organ Sci	(2009) 20: 1034–1052	Knowledge

continued

No.	Title	Author(s)	Journal	Publication	Reason for value creation
38	Process capabilities and value generation in alliance portfolios	Sarkar MB, Aulakh PS, Madhok A	Organ Sci	(2009) 20: 583–600	Cooperation
39	Rewiring: cross-business-unit collaborations in multibusiness organizations	Martin JA, Eisenhardt KM	Academy of Manag J	(2010) 53: 265–301	Cash flows
40	Differential gains between partners in joint ventures: role of resource appropriation and private benefits	Kumar MV, Shyam	Organ Sci	(2010) 21: 232–248	Cooperation
41	When do relational resources matter? Leveraging portfolio technological resources for breakthrough innovation	Srivastava MK, Gnywali DR	Academy of Manag J	(2011) 54: 797–810	Resources
42	Heterogeneous motives and the collective creation of value	Bridoux F, Coeurderoy R, Durand R	Academy of Manag Rev	(2011) 36: 711–730	Cooperation, resources, motivation
43	Overcoming relational inertia: how organizational members respond to acquisition events in a law firm	Briscoe F, Tsai W	Administrative Sci. Q	(2011) 56: 408–440	Resources, cooperation
44	Creating and capturing value in public–private ties: a private actor's perspective	Kivleniece I, Quelin BV	Academy of Manag Rev	(2012) 37: 272–299	Exchange, customer benefit
45	Incentive life cycles: learning and the division of value	Obloj T, Sengul M	Administrative Sci. Q	(2012) 57: 305–347	Learning, motivation, productivity
46	Collaborating for knowledge creation and application: the case of nanotechnology research programs	Lavie D, Drori I	Organ Sci	(2012) May–June: 704–724	Cooperation, knowledge
47	Toward a theory of extended contact: the incentives and opportunities for bridging across network communities	Sytch M, Tatarynowicz A, Gulati R	Organ Sci	(2012) 23: 1658–1681	Knowledge, new markets

References

- Taylor FW (1999) What is scientific management? In: Matteson MT, Ivancevich JM (eds) *Management and behavior classics*, 7th edn. Irwin/McGraw-Hill, Boston, pp 12–15
- Knowles WH (1958) Human relations in industry: research and concepts. *Calif Manag Rev* 1:87–105. ISSN:00081256
- Rappaport A (2006) 10 ways to create shareholder value. *Harv Bus Rev* 84: 66–77. ISSN:00178012
- Liker JK (2004) *The Toyota way: 14 management principles from the world's greatest manufacturer*. McGraw-Hill, New York
- Priem RL (2007) A consumer perspective on value creation. *Acad Manag Rev* 32:219–235. doi:10.5465/AMR.2007.23464055
- Boddeyn JJ, Brewer TL (1994) International-business political behavior: new theoretical directions. *Acad Manag Rev* 19:119–148. doi:10.5465/AMR.1994.9410122010
- Bridoux F, Coeurderoy R, Durand R (2011) Heterogeneous motives and the collective creation of value. *Acad Manag Rev* 36:711–730. doi:10.5465/AMR.2011.65554704
- Felin T, Foss NJ (2005) Strategic organization: a field in search of micro-foundations. *Strateg Organ* 3:441–455. doi:10.1177/1476127005055796
- Coff R, Kryscynski D (2011) Invited editorial: drilling for micro-foundations of human capital-based competitive advantages. *J Manag* 37:429–1443. doi:10.1177/0149206310397772
- Foss NJ (2011) Why micro-foundations for resource-based theory are needed and what they may look like. *J Manag* 37:1413–1428. doi:10.1177/0149206310390218
- Felin T, Foss NJ, Heimeriks KH, Madsen TL (2012) Microfoundations of routines and capabilities: individuals, processes, and structure. *J Manag Stud* 49:1351–1374. doi:10.1111/j.1467-6486.2012.01052.x
- Hammervoll T, Toften K (2010) Value-creation initiatives in buyer-seller relationships. *Eur Bus Rev* 22:539–555. doi:10.1108/09555341011068930
- Cropanzano R, Mitchell MS (2005) Social exchange theory: an interdisciplinary review. *J Manag* 31:874–900. doi:10.1177/0149206305279602
- Muthusamy SK, White MA (2005) Learning and knowledge transfer in strategic alliances: a social exchange view. *Organ Stud* 26:415–441. doi:10.1177/0170840605050874
- Felin T, Foss NJ, Heimeriks KH, Madsen TL (2012) Microfoundations of routines and capabilities: individuals, processes, and structure. *J Manag Stud* 49:1366. doi:10.1111/j.1467-6486.2012.01052.x
- Wernerfelt B (1984) A resource-based view of the firm. *Strateg Manag J* 5:171–180. ISSN:01432095
- Barney JB (1991) Firm resources and sustained competitive advantage. *J Manag* 17:99–120. ISSN:01492063
- Wang HC, He J, Mahoney JT (2009) Firm-specific knowledge resources and competitive advantage: the roles of economic- and relationship-based employee governance mechanisms. *Strateg Manag J* 30:1265–1285. doi:10.1002/smj.787
- Womack JP, Jones DT, Roos D (1994) *Die zweite Revolution in der Autoindustrie: Konsequenzen aus der weltweiten Studie des Massachusetts Institute of Technology*. Campus Verlag, Frankfurt
- Liker JK (2004) *The Toyota way: 14 management principles from the world's greatest manufacturer*. McGraw-Hill, New York, p 6
- Hines P, Holweg M, Rich N (2004) Learning to evolve: a review of contemporary lean thinking. *Ind J Prod Manag* 24:994–1011. doi:10.1108/01443570410558049

22. Jayaraman V, Luo Y (2007) Creating competitive advantages through new value creation: a reverse logistics perspective. *Acad Manag Perspect* 21:56–73. doi:[10.5465/AMP.2007.25356512](https://doi.org/10.5465/AMP.2007.25356512)
23. Hammervoll T (2009) Value creation in supply chain relationships: a critique of governance value analysis. *Eur J Manag* 43:630–639. doi:[10.1108/03090560910946963](https://doi.org/10.1108/03090560910946963)
24. Cui L, Hertz S (2011) Networks and capabilities as characteristics of logistics firms. *Ind Mark Manag* 40:1004–1011. doi:[10.1016/j.indmarman.2011.06.039](https://doi.org/10.1016/j.indmarman.2011.06.039)
25. Christopher M (2005) *Logistics and supply chain management: creating value-adding networks*. Pearson Education Limited, Harlow
26. Ghosh M, John G (1999) Governance value analysis and marketing strategy. *J Mark* 63:131–145. ISSN:00222429
27. Staats BR, Upton DM (2011) Lean knowledge work. *Harv Bus Rev Oct*:100–110, p 97. ISSN:00178012
28. Spear BR, Bowen DM (1999) Decoding the dna of the Toyota production system. *Harv Bus Rev Sep–Oct*: 96–106. ISSN: 00178012
29. Pfeiffer W, Weiß E (1994) *Lean management: Grundlagen der Führung und Organisation lernender Unternehmen*. Erich Schmidt Verlag, Berlin
30. Hines P, Holweg M, Rich N (2004) Learning to evolve: a review of contemporary lean thinking. *Ind J Prod Manag* 24(994–1011):997. doi:[10.1108/01443570410558049](https://doi.org/10.1108/01443570410558049)
31. Hines P, Silvi R, Bartolini M (2002) Demand chain management: an integrative approach in automotive retailing. *J Manag* 20:707–728. ISSN:02726963
32. Newbert SL (2008) Value, rareness, competitive advantage and performance: a conceptual-level empirical investigation of the resource-based view of the firm. *Strateg Manag J* 29:745–768. doi:[10.1002/smj.686](https://doi.org/10.1002/smj.686)
33. Peteraf MA, Barney JB (2003) Unraveling the resource-based tangle. *Manag Decis Econ* 24:309–323. doi:[10.002/mde.1126](https://doi.org/10.002/mde.1126)
34. Holweg M, Pil FK (2001) Successful build-to-order strategies: start with the customer. *MIT Sloan Manag Rev* 43:74–83. ISSN:15329194
35. Tan CK (2001) A framework of supply chain management literature. *Eur J Purch Supply Manag* 7:39–48
36. Smith KG, Carroll SJ, Ashford SJ (1995) Intra- and interorganizational cooperation: toward a research agenda. *Acad Manag Rev* 35:7–23. doi:[10.2307/256726](https://doi.org/10.2307/256726)
37. Bradach JL, Eccles RG (1989) Price, authority, and trust: from ideal types to plural forms. *Annu Rev Soc* 15:97–118. doi:[10.1146/annurev.so.15.080189.000525](https://doi.org/10.1146/annurev.so.15.080189.000525)
38. Dyer JH, Singh H (1998) The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Acad Manag Rev* 23(660–679):662. doi:[10.5465/AMR.1998.1255632](https://doi.org/10.5465/AMR.1998.1255632)
39. Huemer L (2006) Supply management: value creation, coordination and positioning in supply relationships. *Long Range Plan* 39(133–153):134. doi:[10.1016/j.lrp.2006.04.005](https://doi.org/10.1016/j.lrp.2006.04.005)
40. Dyer JH, Singh H (1998) The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Acad Manag Rev* 23:660–679. doi:[10.5465/AMR.1998.1255632](https://doi.org/10.5465/AMR.1998.1255632)
41. Amasaka K, Sakai H (2010) Evolution of TPS fundamentals using new JIT strategy: proposal and validity of advanced TPS at Toyota. *J Adv Manuf Syst* 9:85–99. doi:[10.1142/S0219686710001831](https://doi.org/10.1142/S0219686710001831)
42. Lee BH, Ho HJ (2007) The mutation of the Toyota production system: adapting the TPS at hyundai motor company. *Int J Prod Res* 45:3665–3679. doi:[10.1080/00207540701223493](https://doi.org/10.1080/00207540701223493)
43. Sakakibara S, Flynn BB, Schroeder RC, Morris WT (1997) The impact of just-in-time manufacturing and its infrastructure on manufacturing performance. *Manag Sci* 43:1246–1257. ISSN: 00251909
44. Sugimori Y, Kusunoki K, Cho F, Uchikawa S (1977) Toyota production system and Kanban system materialization of just-in-time and respect-for-human system. *Int J Prod Res* 77:553–564. ISSN:00207543
45. Sugimori Y, Kusunoki K, Cho F, Uchikawa S (1977) Toyota production system and Kanban system materialization of just-in-time and respect-for-human system. *Int J Prod Res* 77:553–564, p 553. ISSN:00207543
46. Imai M (1986) *Kaizen (ky'zen): the key to Japan's competitive success*. McGraw-Hill Higher Education, New York
47. Reiß M (1993) Die Rolle der Personalführung im Lean Management. Vom Erfüllungsgehilfen zum Schrittmacher einer Management-Revolution. *Z. für Personalforschung* 7:171–194
48. Thun JH, Drüke M, Grübner A (2010) Empowering Kanban through TPS-principles—an empirical analysis of the Toyota production system. *Int J Prod Res* 48:7089–7106. doi:[10.1080/00207540903436695](https://doi.org/10.1080/00207540903436695)
49. Lander E, Liker JK (2007) The Toyota production system and art: making highly customized and creative products the Toyota way. *Int J Prod Res* 45:3681–3698. doi:[10.1080/00207540701223519](https://doi.org/10.1080/00207540701223519)
50. New SJ (2007) Celebrating the enigma: the continuing puzzle of the Toyota production system. *Int J Prod Res* 45:3545–3554. doi:[10.1080/00207540701223386](https://doi.org/10.1080/00207540701223386)
51. Liker JK (2004) *The Toyota Way: 14 management principles from the world's greatest manufacturer*. McGraw-Hill, New York, p 13
52. Van de Ven AH (1976) On the nature, formation, and maintenance of relations among organizations. *Acad Manag Rev* October: 24–36, p 25. ISSN:03637425
53. Borys B, Jemison DB (1989) Hybrid arrangements as strategic alliances: theoretical issues in organizational combinations. *Acad Manag Rev* 14:234–249. doi:[10.5465/AMR.1989.4282106](https://doi.org/10.5465/AMR.1989.4282106)
54. Emerson RM (1976) Social exchange theory. *Annu Rev Soc* 2:335–362. doi:[10.1146/annurev.so.02.080176.002003](https://doi.org/10.1146/annurev.so.02.080176.002003)
55. Frenzen J, Nakamoto K (1993) Structure, cooperation, and the flow of market information. *J Consum Res* 20:360–375. ISSN:00935301
56. Burns T (1973) A structural theory of social exchange. *Acta Sociol* 16(188–208):188. doi:[10.1177/000169937301600303](https://doi.org/10.1177/000169937301600303)
57. Thibaut JW, Kelley HH (1986) *The social psychology of groups*. Transaction Books, New Brunswick
58. Cohen WM, Levinthal DA (1990) Absorptive capacity: a new perspective on learning and innovation. *Adm Sci Q* 35:128–152. ISSN:00018392
59. Nonaka I (2007) The knowledge-creating company. *Harv Bus Rev* 85:162–171. ISSN:00178012
60. Eisenberger R, Cotterell N, Marvel J (1987) Reciprocation ideology. *J Pers Soc Psychol* 53:743–750. doi:[10.1037/0022-3514.53.4.743](https://doi.org/10.1037/0022-3514.53.4.743)
61. Witt AL (1992) Exchange ideology as a moderator of the relationships between importance of participation in decision making and job attitude. *Hum Relat* 45:73–85. ISSN:00187267
62. Crosby LA, Evans KA, Cowles D (1990) Relationship quality in services selling: an interpersonal influence perspective. *J Mark* 54:68–81. ISSN:00222429
63. Gefen D, Ridings CM (2002) Implementation team responsiveness and user evaluation of customer relationship management: a quasi-experimental design study of social exchange theory. *J Manag Inf Syst* 19:47–69. ISSN:07421222
64. Dose JJ (1997) Work values: an integrative framework and illustrative application to organizational socialization. *J Occup Organ Psychol* 70:219–240. ISSN:09631798
65. Nystrom PC (1986) Comparing beliefs of line and technostructure managers. *Acad Manag J* 29:812–819. doi:[10.2307/25947](https://doi.org/10.2307/25947)
66. Sidani Y, Jamali D (2010) The Egyptian worker: work beliefs and attitudes. *J Bus Ethics* 92:433–450. doi:[10.1007/s10551-009-0166-1](https://doi.org/10.1007/s10551-009-0166-1)

67. Bateman TS, Crant JM (1993) The proactive component of organizational behavior: a measure and correlates. *J Organ Behav* 14:103–118. ISSN:08943796
68. Chan D (2006) Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. *J Appl Psychol* 91:475–481. ISSN:00219010
69. Crant JM (1995) The proactive personality scale and objective job performance among real estate agents. *J Appl Psychol* 80:532–537. ISSN:00219010
70. Erdogan B, Bauer TN (2005) Enhancing career benefits of employee proactive personality: the role of fit with jobs and organizations. *Pers Psychol* 58:859–891. doi:10.1111/j.1744-6570.2005.00772.x
71. Seibert SE, Crant JM, Krainer ML (1999) Proactive personality and career success. *J Appl Psychol* 84:16–427. ISSN:00219010
72. Seibert SE, Kraimer ML, Crant JM (2001) What do proactive people do? A longitudinal model linking proactive personality and career success. *Pers Psychol* 54:845–874. ISSN:00219010
73. Zhang Z, Wang M, Shi J (2012) Leader-follower congruence in proactive personality and work outcomes: the mediating role of leader-member exchange. *Acad Manag J* 55:111–130. doi:10.5465/amj.2009.0865
74. Foa UG, Foa EB (1974) Societal structures of the mind. Charles C Thomas, Springfield
75. Foa UG, Foa EB (1974) Societal structures of the mind. Charles C Thomas, Springfield, p 37
76. Grant RM, Baden-Fuller C (2004) A knowledge accessing theory of strategic alliances. *J Manag Stud* 4:61–84. doi:10.1111/j.1467-6486.2004.00421.x
77. Palmatier RW (2008) Interfirm relational drivers of customer value. *J Mark* 72:76–89. doi:10.1509/jmkg.72.4.76
78. Lawler EJ, Yoon J (1996) Commitment in exchange relations: test of a theory of relational cohesion. *Am Sociol Rev* 61:89–108, 90. ISSN:00031224
79. Kanter RM (1968) Commitment and social organization: a study of commitment mechanisms in utopian communities. *Am Sociol Rev* 33:499–517. ISSN:00031224
80. Marsden PV, Campbell KE (1984) Measuring tie strength. *Soc Forces* 63:482–501. ISSN:00377732
81. Granovetter MS (1973) The strength of weak ties. *Am J Sociol* 78:1360–1830. Stable URL: <http://www.jstor.org/stable/2776392>
82. Dyer J, Nobeoka K (2000) Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strateg Manag J* 21:345–367, 349. ISSN:01432095
83. Nobeoka K, Dyer JF, Madhok A (2002) The influence of customer scope on supplier learning and performance on Japanese Automobile Industry. *J Int Bus Stud* 33:717–736
84. IBM Global Services (2009) The smarter supply chain of the future: global chief supply chain officer study. http://www-148.ibm.com/tela/servlet/Asset/297861/CSCO%20Study%2010_21_09.PDF. Accessed 26 Oct 2012
85. Pritchard D, MacPherson A (2004) Industrial subsidies and the politics of world trade: the case of Boeing 7e7. *Ind Geogr* 1:57–73
86. McLeish KN, Oxoby RJ (2011) Social interactions and the salience of social identity. *J Econ Psychol* 32:172–178. doi:10.1016/j.joep.2010.11.003
87. Mael F, Ashforth BE (1992) Alumni and their alma mater: a partial test of the reformulated model of organizational identification. *J Organ Behav* 13:103–123. ISSN:08943796