

THE EVOLVING NATURE OF THE COMPETITIVE ADVANTAGE OF TRIADIC SUPPLY CHAINS. THE PERSPECTIVE OF EMBEDDEDNESS

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Artur Świerczek

Introduction

Establishing and nurturing relationships is a central theme when investigating the competitive advantage of supply chains. Building upon the theory of strategic management, two prominent views regarding relationships as the source of competitive advantage can be distinguished, namely the Resource Based View (RBV) and the relational/network view.

The RBV suggests that the competitive advantage is dependent upon resources, capabilities and assets that are housed within individual companies. Among the intangible resources one may distinguish relationships, which are critical for the competitive advantage of a particular actor (Das, Teng, 2002). In other words, establishing relationships is a way to building own key competences determining the competitive advantage. The second view – the relational/network view underscores that the competitive advantage is derived for all actors involved in the process of resource sharing. Consequently, the network competitive advantage enables all network companies to produce a supernormal profit that cannot be yielded in isolation, and can be only generated through the joint idiosyncratic contributions of the supply chain actors (Dyer, Singh, 1998). The common premise of the resource-based view and the network view is underscoring the role of relationships in deriving the competitive advantage of supply chains. However, in line with these two views, relationships contribute differently to the competitive advantage. Essentially, the RBV considers the firm as the primary unit of analysis, and emphasizes the importance of internal resources residing within individual companies (Dyer, Singh, 1998). Consequently, an individual company as a beneficiary, is able to improve its competitive advantage. On the other hand, the network view highlights the network as the unit of analysis, and emphasizes the role of reciprocal resource sharing in achieving and sustaining the competitive position of all companies involved (Dyer, Singh, 1998).

Prior research predominantly investigated the effects of relationships on performance from the standpoint of either one actor in the network or the dyadic arrangement (Son et al., 2016). As a consequence, this has left a gap between traditional theories of the firm and findings concerning the interconnected firms, that can potentially form supply chains. To bridge this gap, we employ the network perspective by referring to triads, more specifically – triadic supply chains depicted as the smallest unit of network (Choi, Wu, 2009).

Moreover, prior studies, when elaborating on performance within supply chains, are mostly anchored in either the resource-based view or the dyadic view, as two complementary, but distinct concepts. Consequently, there is a dearth of studies that expand the concept of network competitive advantage as the extension of relational view, and subsequently compare the RBV and network views of competitive advantage from the supply chain perspective. In order to address the above-mentioned gap, we seek to combine two prominent views of the competitive advantage, namely the resource-based view and network view with embeddedness as an important facet of the social capital. Generally, embeddedness is a denial of atomization and highlights that exchange relations are embedded within the larger social system in which they occur and develop. In essence, “Embeddedness refers to the fact that economic action and outcomes ... are affected by actors’ dyadic (pairwise) relations and by the structure of the overall network of relations” (Granovetter, 1992, p. 33). Therefore, embeddedness suggests, that no organization is ‘suspended in a vacuum’ and each operates under the influence of social network in which the companies are embedded. In the supply chain context embeddedness can be defined as the extent a firm relies on a network of other actors (Kim, 2014).

Accordingly, the goal of the paper is twofold. First, it aims to provide cumulative additions to our understanding the role of embeddedness in shaping distinct, but complementary views on the competitive advantage of supply chains. Second, it seeks to demonstrate that the competitive advantage of supply chains has a dynamic and evolving character. Consequently, by giving practical examples, we show that in some situations, the resource-based competitive advantage might migrate into the network competitive advantage, and vice versa. To achieve these goals, we employ the narrative literature review method to depict verbal descriptions of past studies concentrating on the theories and empirical frameworks which are of interest in this paper (King, He, 2005). Consequently, this method was used to aid in deeper understanding of how the relationships are shaped by the social capital to derive the competitive advantage of supply chains. Likewise, the narrative literature review method was also applied to underscore that the competitive advantage of supply chains is not given once and for all, and due

to its dynamic and evolving character, it may migrate from one type to the other. It is worth noting that the competitive advantage may also migrate beyond the scope of these two models, but as embeddedness is of particular interest of this study, we primarily refer to them. More importantly, embeddedness is considered as an inherent component of the supply chain concept, therefore these two models play a significant role in deriving the competitive advantage.

In this paper, we consider structural and relational embeddedness as two, the most common conceptualizations of social capital (Uzzi, 1997). The former determines the extent and range of resources that are within supply chain's reach, while the latter indicates how much of this potential will be actually used to derive the competitive advantage. Having linked structural embeddedness with the configuration of supply chain structure and relational embeddedness with the quality of relationships, we then demonstrate how these both types affect the resource-based and network competitive advantages of supply chains. Through these theoretical lenses, we offer a discussion on the conceptual development, with particular emphasis on two models of the competitive advantage of supply chains. These two models apply some portion of embeddedness, making relationships the primary source of the competitive advantage of supply chains. Although these models are distinct, they complement each other, and underline a dynamic and evolving character of relationships that bring the resource-based and network competitive advantages of supply chains¹.

Relationships and the competitive advantage of supply chains

The issue of gaining and sustaining the competitive advantage of companies has received widespread attention for the last few decades. However, more recently the studies dealing with the competitive advantage shifted

the focus from individual firms to interorganizational arrangements, such as supply chains. This new research perspective was aptly expressed by Christopher (2016) who posits that nowadays not only is the real competition run between individual companies, as suggested within the traditional strategic management literature, but mostly between the whole supply chains. This catchy phrase underscores the role of relationships in gaining and sustaining the competitive advantage of supply chains. For instance, Melnyk et al. (2010) argues that the concept of supply chain management expands the reach of the company beyond its immediate grasp to other links where the competitive advantage may be derived. Figure 1 depicts the evolutionary role of relationships as a source of competitive advantage of supply chains. The classical concept of RBV assumes that individual companies do not establish any collaborative relationships, instead they concentrate on their internal competitive capabilities. As depicted in Figure 1, firms are not linked with other partners, as they are focused on nurturing their own resources. Further development of RBV has led to the increase of interest in establishing relationships with external partners. In line with this extended Resource-Based-View, the formation of relationships is the way to build own key competences determining the competitive advantage (Das, Teng, 2000).

As indicated in Figure 1, there are unidirectional and asymmetric relationships established by the strongest link in the supply chain structure. However, this evolutionary stage is particularly appealing, as it shifts the research interest from internal resources of individual companies to the interorganizational level. In other words, it implies that the competitive advantage stems from a hierarchical approach that promotes the focal firm perspective and neglects inter-dependences between other links in a supply chain.

The role of relationships in building the competitive advantage of supply chains is fully conceptualized in the

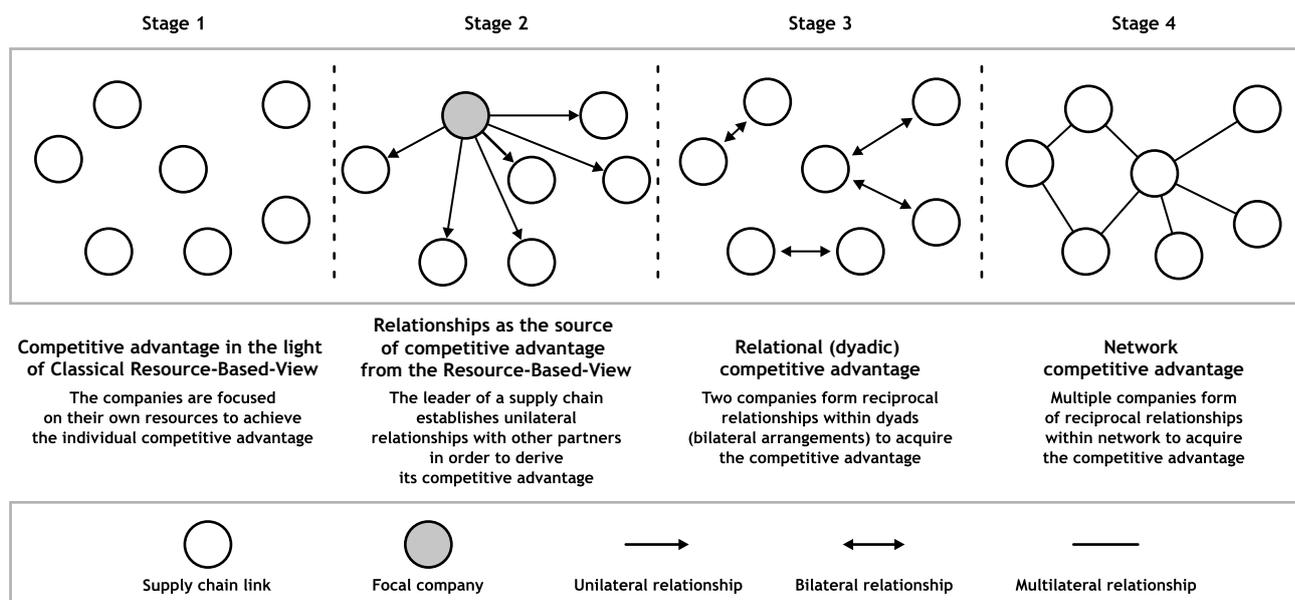


Figure 1. An illustrative evolution of approaches to the relationships as the source of competitive advantage of supply chains
Source: own elaboration

following two evolutionary stages of relational and network competitive advantages. The concept of relational advantage puts emphasis on value created by partners within bilateral arrangements. In line with this approach, benefits are reaped through the shared capabilities of both parties involved. However, due to a limited number of links participating in such arrangements, superior value generated through the relational competitive advantage is usually unsatisfying. Therefore, establishing partner-based relationships within dyads provides the first step in the development of network competitive advantage. In other words, the relational competitive advantage is an initial step that can be improved by establishing ties with other supply chain partners. Hence, it moves beyond the merely instrumental use of relationships demonstrated by the resource-based view, and the limited benefits reaped from the relational competitive advantage. Therefore, recently, the concept of supply chain has experienced a noticeable shift in the research focus from dyadic arrangements to the network perspective.

Research method

To achieve the goal of the paper this study employs the method of literature review that is an explicit and reproducible design for identifying, evaluating and interpreting the existing publication record. It enables to bring scattered pieces of literature together and thus can be an effective way in theory development (Yawar, Seuring, 2017). As our paper is conceptual in nature, it should rather be discursive and cover philosophical discussions and comparative studies of others' work and thinking (Bhakar, Mehta, 2011). Therefore, we followed the narrative literature review approach, that is particularly useful, when it is necessary to pull together many studies on different topics, either for purposes of reinterpretation or interconnection (Nicholls, Mohsen, 2015). There are three major but distinct themes in our research, namely: social capital theory, supply chain concept and competitive advantage. Therefore, the narrative literature review was used to examine existing research themes to shed new light on their combination. The narrative literature review method con-

sisted of the following three stages (Grant, Booth, 2009): searching and selecting relevant papers, reviewing the papers, and identifying the major insights depicted from the papers.

Search method

As the research topic covers multiple fields of management theory, social capital theory, supply chain theory, we selected previous works from three major databases: ProQuest, Emerald and Wiley Online Library. It is worth noting that certain papers might appear in more than one database. The following keywords were used: embeddedness, supply chain, competitive advantage. As the application of social capital theory in the field of management has proliferated only in the past two decades, we searched for papers, book chapters and case studies that have been published within the period 2000–2019. Nonetheless, some seminal works which appeared before 2000 were also included to discuss the foundational research. Figure 2 depicts the results of the search regarding the number of publications across three databases in 2000–2017.

As shown in Figure 2, one may observe a progressive increase of the number of publications linking the issue of embeddedness, supply chain and competitive advantage. However, the most significant growth can be noticed over the past ten years.

Analysis of the papers and identifying major insights

When the database displayed the works in response to our keywords, we reviewed the abstracts and determined their relevancy. Having read the abstracts, we perused the discussion and conclusion sections to ensure the relevancy of the articles for the literature review. Next, we analysed the work thoroughly to understand its research. Finally, we categorized the works using content analysis method to generate the themes. In the result of analysis and screening, we included a total number of 312 articles for further review. Among them, a group of 45 (roughly 15 per cent) pertaining to the role of embeddedness in shaping the competitive advantage of supply chains were included in the final analysis.

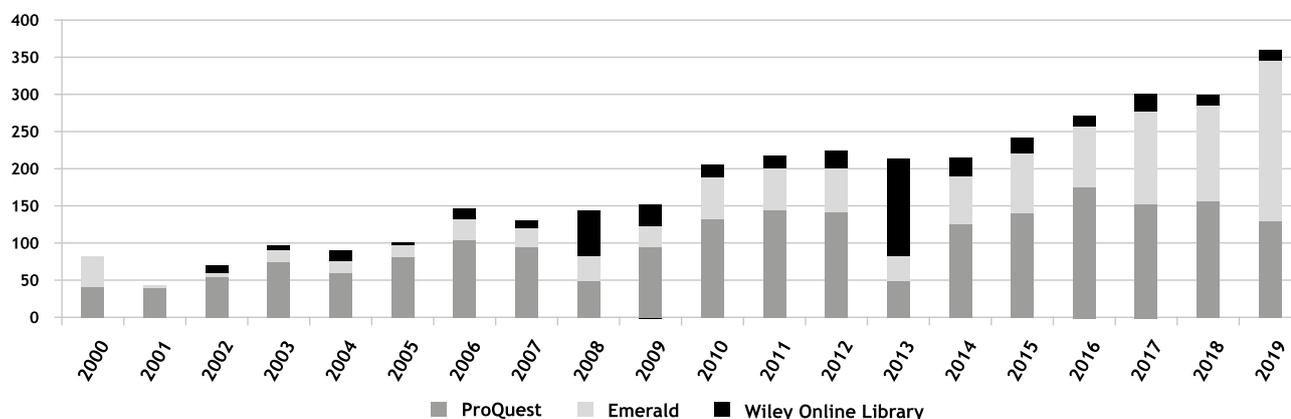


Figure 2. Number of publications concerning the role of embeddedness in the competitive advantage of supply chains across three databases with 2000-2017

Source: own elaboration



Competitive advantage of triadic supply chains in the light of structural embeddedness

Structural embeddedness is depicted as conceptualization of social capital (Nahapiet, Ghoshal, 2000) and, as such, it refers to the overall pattern of network interactions. These interactions define who a particular actor reaches and how it reaches others in a network (Burt, 1992). Consequently, structural embeddedness indicates whether the certain ties that determine the network configuration, actually exist (Nahapiet, Ghoshal, 2000). The network configuration of supply chains should involve at least three actors that participate in one or more of the upstream and downstream flows of products, information and finances from a source to a customer. In other words, in its primary configuration, a supply chain is a triad, which is referred to as the triadic supply chain in this study. Regarding the number of dyads, one may distinguish between two types of triadic arrangements. The first one, referred to as the structural hole, is composed of two dyads (constituted by three nodes and two links), and the second one, considered as closure, embraces three dyads (composed of three nodes and three links) (Choi, Wu, 2009). Nevertheless, both types of triadic arrangements shape relationships differently to derive the competitive advantage of supply chains.

The structural hole and the resourced-based competitive advantage of triadic supply chains

The privileged position of a certain actor in the structural hole stems from the fact that it establishes direct relationships with two other actors that do not have a direct link with each other (Choi, Wu, 2009). Therefore, within a triadic setting, the structural hole can be referred to the concept of “ego network” of a particular firm. “An ego network is comprised of an ego, the ego’s immediate ties (i.e. first-degree connections)...” (Carnovale, Yenyurt, 2015, p. 23). Building upon the structural hole concept, we argue that the focal actor in a triad is the one, who seeks for an opportunity to obtain the competitive advantage by filling the gap between two other actors that remain disconnected (Burt, 1992). In other words, the privileged position in a triad is used to maximize own competitive advantage even at the expense of two other actors (Burt, 1992). In line with this concept, the company sitting on the structural hole can play two actors against each other or can form a coalition with one actor against the other one (Choi, Wu, 2009). The actor sitting on the top of structural hole can exploit the lack of connection by reaping the competitive advantage from bridging other disconnected actors (Podolny, Baron, 1997). This advantage stems from the brokerage opportunities (Burt, 1992), that the focal actor is likely to undertake. It plays the role of “gatekeeper” with the ability to exert more power and control over peripheral firms (Bellamy, Basole, 2013). Thus, the focal company holds the position of *tertius*, the third one that benefits (Burt, 1992) by deriving advantages. In the role of *tertius*, the focal company has an opportunity to access, aggregate, and finally protect resources in a triad to obtain

otherwise unavailable competitive advantages. Therefore, we argue that the structural hole is the type of interorganizational arrangement that enables the focal company to create and take the most value out of others’ resources (Das, Teng, 2000) for its individual benefit. In practice this type of advantage can take the form of *co called* ‘Burt-rent’ which underscores the outcome of competitive struggle of one actor sitting on the top of structural hole that is encouraged by envy and self-interest (Kogut, 2000).

Closure and the network competitive advantage of triadic supply chains

The concept of closure assumes that the power of social capital stems from direct relationships established in closed networks (Coleman, 1988). The term of direct ties refers to the ties established between an actor and its partners (Podolny, Baron, 1997). From the perspective of structural embeddedness, closure demonstrates that some of the firms’ crucial resources can be expanded or constructed beyond the boundaries of individual firms and framed within the interorganizational arrangement (Espino-Rodriguez, Rodriguez-Diaz, 2014). If the number of connections among actors increases, there are more alternatives for deriving a valued resource (Baum et al., 2000). Consequently, a dense network of contacts promotes higher availability of redundant resources (Nakauchi et al., 2017; Parmentola et al., 2018). Closure also promotes a low level of network centrality that ensures a more balanced supply chain structure whose actors manifest less opportunism and eagerness to obtain particular interests (Zang, 2018). In such a network, no single company has enough power and prominence to profoundly exert influence on the other actors. They rather act impartially, to quell conflicts, and ensure the triad’s continued existence. In the light of the aforementioned, we argue that a high level of network density, on the one hand, and low level of centrality characterizing closure, on the other hand, contribute to deriving the network competitive advantage of supply chain.

The network competitive advantage in closure is anchored in the triple dyadic structures. They denote that three dyads forming closure yield effects stronger than these dyads would ever generate individually. In other words, actors in closure are capable of yielding synergy that is unattainable by either dyad acting in isolation. Accordingly, the outcome of interplay among dyads enables to yield synergistic effects. This synergy is referred to as the ‘Coleman-rent’ highlighting that benefits are accrued to all three actors in closure (Kogut, 2000). In the same vein, Duschek (2002) underscored that although there are redundant ties among actors in closure, the Coleman-rent is still generated and brings benefits for all participating companies.

Relational embeddedness and the competitive advantage of supply chains

To characterize relational embeddedness the notions of closeness and trust are used (Nahapiet, Ghoshal, 2000). As stated by Moran (2005, p. 1135), closeness and trust “represent progressively deeper degrees of relational

quality: from proclivity to provide resources vis-a-vis personal familiarity (relational closeness) to a deep sense of the contact's reliability and faithfulness in resource exchange (interpersonal trust)".

Relational closeness in building the competitive advantage of supply chains

Relational closeness reflects the strength of ties (Moran, 2005), and as such it can be described as either a strong or weak tie (Granovetter, 1973). Accordingly, the stronger relationships in a network, the more frequent interaction among the actors (Granovetter, 1973). Although, the concept of 'tie-strength' is originally derived from the structural hole theory (Granovetter, 1973; Burt, 1992), it can be also easily applied in closure (Coleman, 1988). It brings several benefits to both types of structural embeddedness. First, relational closeness has influence on the spread of information in a network (Granovetter, 1973). This can be beneficial to the central actor in the structural hole arrangement as well as a group of actors forming closure. Consequently, the actor sitting on the top of structural hole has the ability to gain two major advantages: information and control (Xiao, Tsui, 2007). More specifically, it is capable of either exploiting, manipulating and arbitrating information flow between disconnected parties, or taking control over the projects that bring together actors positioned on the opposite sides of structural hole (Burt, 1992). Information is also a paramount issue in closure, as it provides partners with superior knowledge about each other (Gulati, 1995). Similarly, Johansson and Quigley (2004) highlighted that closure enhances the information circulation to other partners, and thus mitigates the potential problems with distorted communication. Furthermore, strong ties are also more beneficial than weak ties, as they allow a greater volume of resources to be transferred among actors (Podolny, Baron, 1997). Closure fosters robust individual and collective actions as all actors know and interact with each other. In other words, closure mitigates exchange risk, enhances the likelihood that actors will establish collaboration through sharing and reinforcing resource exchange (Moran, 2005). Interestingly, in case of closure, certain resources are redundant, which prevents the actors from exploitive behaviour and concomitantly encourages collaboration, typical for the network competitive advantage. In the light of the aforementioned, we argue that relational closeness can contribute both to the resource-based and network competitive advantages.

Relational trust in building the competitive advantage of triadic supply chains

Trust and distrust are viewed as mutually exclusive terms (Parris et al., 2016). While trust can be expressed as the belief that an exchange actor will not be selfish and will not act in self-interest at another's expense (Uzzi, 1997), distrust, usually conceived as the absence of trust demonstrates the belief that an exchange actor is selfish and self-interested, and thus may act harmfully (Schoorman et al., 2007). Though prior studies perceived trust as a bipolar concept opposite

to distrust, a large body of literature defends the existence of different levels of trust and distrust (Gago-Rodríguez, Naranjo-Gil, 2016).

The level of trust/distrust has profound implications for the competitive advantage of supply chains. Interestingly, as highlighted by Podolny and Baron (1997), the structural hole does not seem to recognize the importance of trust and support from others, to access crucial resources necessary for the competitive advantage. Quite the contrary, it is very difficult to generate trust as actors act on their own in the structural hole arrangements. In this type of structure, long-term contracts are not maintained, as it is a pulsing swirl of mixed, conflicting demands. This specifically refers to the focal company, that is lured and prone to act opportunistically (Burt, 1992). On the other hand, Coleman (1988) argued that closure is important for the trustworthiness of social structures that allows proliferation of obligations and expectations. In other words, closure highlights the importance of solidarity and trust among actors (Coleman, 1988) and, in the result, it contributes to mitigating the tie unreliability. In other words, closure supports trust that encourages cooperation and curbs opportunism. We argue that trust-building initiatives play a vital role in deterring potential opportunistic behaviour of supply chain actors, and thus enhancing the network competitive advantage.

Dynamic character of the competitive advantage of triadic supply chains

In contemporary supply chains both types of the competitive advantage of supply chains seem to be simultaneously combined, as supply chains are often depicted as a 'mixture of collaboration and competition', bidding wars, negotiations and attempts to take control over the decisions of some actors by others. Not all of the relationships have the same importance in the network, and not all of them are created equal (Granovetter, 1973). They differ in terms of pivotal features such as closeness, interdependence, and rent-generating function. In fact, extant research demonstrated that maintaining the balance between close and long-term relationships on the one hand, and estranged relationships with new partners might be beneficial, as it may provide fresh ideas, and thus prevent negative aspects of too strong relational embeddedness (Dittrich, Duysters, 2007). Too strong embeddedness is the dark side of relationships, as it can reduce the ability of actors to be objective and make effective decisions. Consequently, different levels of the strength of relational embeddedness simultaneously coexist in a triadic arrangement (Lambert, Cooper, 2000).

In the light of the aforementioned, combining structural and relational embeddedness does not always result in producing certain patterns of relationships, characteristic for the specific configuration of network. In practice, actors forming closure may establish closely-tied and distrusted relationships, typical for the structural hole. For instance, Rossetti, Choi (2005) described closure that operates in the aerospace industry, which led to the chain

of destructive actions undertaken by the actors. On the other hand, actors can form closely tied and trust-based relationships in the structural hole arrangements, that are actually characteristic for closure. A classic example is provided by the US textile company Milliken, Seminole – a manufacturer of men's slacks and the retailer Wal-Mart (Christopher, 2016), two flagship manufacturers: Procter and Gamble, and Gillette (Drayer, 1999), and Miller SQA, a furniture manufacturer that established closely-tied and trust-based relationships with its suppliers and customers (Bovet, Martha, 2000). Although these situations may occur in practice, they will arguably last only periodically, and will lead to profound changes to the existing structure of arrangement and quality of relationships. Having said that, the resource-based competitive advantage might migrate into the network competitive advantage when, for instance the manufacturer, having trusted relationships with both suppliers in the structural hole context, brings these two disconnected suppliers together in a joint project and, in this way, forms closure (Lambert, Cooper, 2000). This can be observed in the supply chain of Benetton, in which both the upstream and downstream actors (mainly wool growers and retailers) were brought together to apply the overall strategy (Daprian, 1992). Similarly, in the automotive industry, the supply chain of Chrysler used to encourage noncompeting suppliers to share best practices with the downstream actors (Stallkamp, 1998). Though admittedly, the manufacturer loses some of the power, as it does not fill the structural hole anymore, the whole triad is likely to gain the network competitive advantage. Moreover, an initially adversarial tie between two partners in the triadic supply chain can also migrate into the trust-based relationship, which in turn, contributes to yielding the network competitive advantage. For instance, Wu and Choi (2005) provided the example of company named Coach, which pressured its suppliers to establish trusted relationships on production and quality issues, and consequently tap into the aggregated engineering capability between them. Similarly, Mena et al. (2013) delivered a case of the Bread Supply Chain in order to describe trust-based and closely-tied relationships in closure. Figure 3 depicts the basic stages in the migration process

from the resource-based competitive advantage towards the network competitive advantage. The simplified process of migration from the resource-based competitive advantage towards the network competitive advantage covers the transitory stage. In this stage the three actors seek to build trust in two dyads in their structural hole arrangement, and then, usually the focal actors aim to bring together the two disconnected actors positioned at both ends of the triad.

This way, they start to form the third link which may finally evolve into a trusted relationship. However, sometimes, despite of the effort made by the actor to bring the two other partners together, there is little chance for closure and the network competitive advantage to be established. For instance, Wu and Choi (2005) provided the case of a company called Mediator which put a tremendous effort to encourage its two competing suppliers to establish a trust-based relationship. Despite several attempts, undertaken by Mediator, both suppliers were incapable of forming a trust-based relationship between each other. In a result, the network competitive advantage was never derived, the resource-based competitive advantage was still held. On the other hand, the network competitive advantage might evolve into the resource based competitive advantage. For instance, when the company in closure starts favouring one partner over the other, it provokes inequity and animosity that can finally lead to forming distrusted relationship between two partners (Choi, Wu, 2009). For instance, Wu and Choi (2005) delivered several examples of companies (i.e. Plotter, Flip-Flop), that favoured one supplier over the other. Both of them preferred to establish or continue trust-based relationships with the partner they have been working with for many years, while the second partner was only involved to secure the current superior position of the mentioned companies. This situation will primarily bring benefits to the focal companies that started the process of disintegration in their triads, highlighting the prominence of resource-based competitive advantage – Figure 4. The trusted relationships in closure, determining the network competitive advantage, may turn into the distrusted ones in the result of unequal treatment and animosity among the actors. In the transitory stage, closure is exposed to

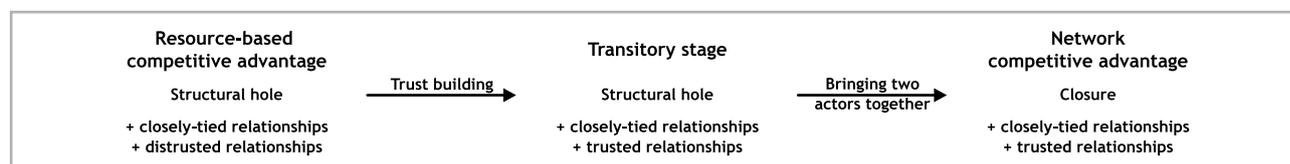


Figure 3. The migration of the resource-based competitive advantage towards the network competitive advantage
Source: own elaboration

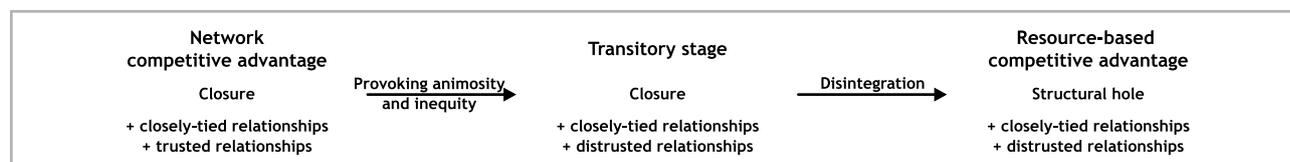


Figure 4. The migration of the network competitive advantage towards the resource-based competitive advantage
Source: own elaboration

strong disintegration which finally leads to breaking ties and decreasing the quality of relationships. If the actors are still willing to form the arrangement, and the connection between only two actors is broken, then closure can evolve to the structural hole, and thus the network competitive advantage can migrate into the resource-based competitive advantage. In our study, closure and the structural hole are depicted as not opposite ones, but rather as two sides of the same coin. In other words, both closure and the structural hole complement each other, when applied to depict the resource-based and network competitive advantages of supply chains. Moreover, in line with the previous studies (e.g. Kim, 2014), our research also showed that structural embeddedness might be depicted as an antecedent of relational embeddedness. More specifically, in order to share resources, a tie should be first established to provide the potential of accessing necessary resources available from other actors (Granovetter, 1973; Moran, 2005). Accordingly, the presence of ties determines the possibility of establishing exchange relationships of certain quality, as depicted by the concept of relational embeddedness. Therefore, we argue that the quality of relationships is, to some extent, dependent upon the configuration of a triad.

The highlighted evolution of the patterns of relationships evidences its dynamic character that can be investigated at several different angles: from the actor layer, the role of relationships in mediating the size and extent of change, transformation processes, perceptions of network change, learning processes etc. Moreover, the evolution of the patterns of competitive advantage is situation dependent, and as such it is most often affected by several contextual factors. The past studies do not provide examples of all possible situations concerning the migration of the competitive advantage of supply chains. Our study depicts only one example that leads to the competitive advantage and its evolution. Apart from that, one may enumerate several other outcomes of the interconnectedness of relationships that lead to lobbyism, competition or even a decay of arrangements (Ritter, 2000). In addition, Smith and Laage-Hellman (1992) underscore different postures of actors (e.g. flanking, combination, displacement) that may finally affect the resultant pattern of the interactions, other than the competitive advantage. Interestingly, they may produce different resulting outcomes that may have a profound impact on the competitive advantage of supply chains, namely: assistance effects, hindrance effects, lack effects, synergistic effects (Pardo, Michel, 2015).

Conclusions

In this paper, we have juxtaposed two dimensions of embeddedness (both structural and relational) with two models of the competitive advantage of triadic supply chains (resource-based and network). This aided in deeper understanding of how the competitive advantage of supply chains can be shaped by structural and relational embeddedness. However, since relational behaviours of actors in the triadic supply chains are complex and develop over time, changes of embeddedness determine a dynamic and evolving nature of the competitive advantage of supply

chains. Accordingly, the resource-based competitive advantage can migrate into the network competitive advantage, while the network competitive advantage might evolve into the resource based competitive advantage. The major contribution of this study is providing conceptual underpinnings of the link between embeddedness and competitive advantage of supply chains which can be further investigated in empirical research. Validation and verification of the model is the issue of particular interest as the study draws upon the narrative literature review which might at times result in obtaining the subjective interpretation. The study can also have profound implications for managers who should be aware of certain changes their supply chains are exposed to, that initiate the process of competitive advantage migration. Consequently, the managers ought to be capable of selecting appropriate managerial solutions to shape the desired model of the competitive advantage of their supply chains.

Artur Świerczek, Ph.D., D.Sc.
University of Economics in Katowice
College of Management
ORCID: 0000-0001-6198-6377
e-mail: artur.swierczek@uekat.pl

Endnote

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References

- [1] Baum J.A.C., Calabrese T., Silverman B.S. (2000), *Don't Go It Alone: Alliance Network Composition and Startups' Performance in Canadian Biotechnology*, „Strategic Management Journal”, Vol. 21, No. 3, pp. 267–294.
- [2] Bellamy M.A., Basole R.C. (2013), *Network Analysis of Supply Chain Systems: A Systematic Review and Future Research*, „System Engineering”, Vol. 16, No. 2, pp. 235–249.
- [3] Bhakar S.S., Mehta S. (2011), *A Systematic Guide to Write a Research Paper*, Prestige Institute of Management, New Dehli.
- [4] Bovet D., Martha J. (2000), *Value Nets: Breaking the Supply Chain to Unlock Hidden Profits*, John Wiley & Sons, New York.
- [5] Burt R.S. (1992), *Structural Holes*, Harvard University Press, Cambridge, Massachusetts.
- [6] Carnovale S., Yenyurt S. (2015), *The Role of Ego Networks in Manufacturing Joint Venture Formations*, „Journal of Supply Chain Management”, Vol. 51, No. 2, pp. 22–46.
- [7] Choi T.Y., Wu Z. (2009), *Triads in Supply Networks: Theorizing Buyer-supplier-supplier Relationships*, „Journal of Supply Chain Management”, Vol. 45, No. 1, pp. 8–25.
- [8] Christopher M. (2016), *Logistics & Supply Chain Management*, Pearson Education Limited 5th Edition, Harlow, UK.
- [9] Coleman J.S. (1988), *Social Capital in the Creation of Human Capital*, „American Journal of Sociology”, Vol. 94, pp. 95–120.

- [10] Dapiran P. (1992), *Benetton – Global Logistics in Action*, „International Journal of Physical Distribution & Logistics Management”, Vol. 22, No. 6, pp. 7–11.
- [11] Das T., Teng B. (2002), *Alliance Constellations: A Social Exchange Perspective*, „Academy of Management Review”, Vol. 27, No. 3, pp. 445–456.
- [12] Das T.K., Teng B. (2000), *A Resource-Based Theory of Strategic Alliances*, „Journal of Management”, Vol. 26, No. 1, pp. 31–61.
- [13] Dittrich K., Duysters G. (2007), *Networking as a Means to Strategy Change: The Case of Open Innovation in Mobile Telephony*, „Journal of Product Innovation Management”, Vol. 24, No. 6, pp. 510–521.
- [14] Drayer R. (1999), *Procter & Gamble’s Streamlined Logistics Initiatives*, „Supply Chain Management Review”, Vol. 3, No. 2, pp. 32–43.
- [15] Duschek S. (2002), *Innovation in Netzwerken: Renten, Relationen, Regeln* [Innovation in networks: Rents, relations, rules], DUV, Wiesbaden.
- [16] Dyer J.H., Singh H. (1998), *The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage*, „Academy of Management Review”, Vol. 23, No. 4, pp. 660–679.
- [17] Espino-Rodríguez T.F., Rodríguez-Díaz M. (2014), *Determining the Core Activities in the Order Fulfillment Process: An Empirical Application*, „Business Process Management Journal”, Vol. 20, No. 1, pp. 2–24.
- [18] Gago-Rodríguez S., Naranjo-Gil D. (2016), *Effects of Trust and Distrust on Effort and Budgetary Slack: An Experiment*, „Management Decision”, Vol. 54, No. 8, pp. 1908–1928.
- [19] Granovetter M.S. (1973), *The Strength of Weak Ties*, „American Journal of Sociology”, Vol. 78, No. 6, pp. 1360–1380.
- [20] Granovetter M.S. (1992), *Problems of Explanation in Economic Sociology*, [in:] N. Nohria, R.G. Eccles (eds.), *Networks and Organizations*, Harvard Business School Press, Boston, MA, pp. 25–56.
- [21] Grant M.J., Booth A. (2009), *A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodologies*, „Health Information & Libraries Journal”, Vol. 26, No. 2, pp. 91–108.
- [22] Gulati R. (1995), *Social Structure and Alliance Formation Patterns: A Longitudinal Analysis*, „Administrative Science Quarterly”, Vol. 40, No. 4, pp. 619–652.
- [23] Johansson B., Quigley J.M. (2004), *Agglomeration and Networks in Spatial Economies*, „Regional Science”, Vol. 83, No. 1, pp. 165–176.
- [24] Kim D.Y. (2014), *Understanding Supplier Structural Embeddedness: A Social Network Perspective*, „Journal of Operations Management”, Vol. 32, No. 5, pp. 219–231.
- [25] King W., He J. (2005), *Understanding the Role and Methods of Meta-Analysis in IS Research*, „Communications of the Association for Information Systems”, Vol. 16, Article 32.
- [26] Kogut B. (2000), *The Network as Knowledge: Generative Rules and the Emergence of Structure*, „Strategic Management Journal”, Vol. 21, No. 3, pp. 405–425.
- [27] Lambert D.M., Cooper M.C. (2000), *Issues in Supply Chain Management*, „Industrial Marketing Management”, Vol. 29, pp. 65–83.
- [28] Melnyk S., Davis E., Spekman R., Sandor J. (2010), *Outcome Driven Supply Chains*, „MIT Sloan Management Review”, Vol. 51, No. 2, pp. 33–38.
- [29] Mena C., Humphries A., Choi T.Y. (2013), *Toward a Theory of Multi-Tier Supply Chain Management*, „Journal of Supply Chain Management”, Vol. 49, No. 2, pp. 58–77.
- [30] Moran P. (2005), *Structural vs. Relational Embeddedness: Social Capital and Managerial Performance*, „Strategic Management Journal”, Vol. 26, No. 12, pp. 1129–1151.
- [31] Nahapiet J., Ghoshal S. (2000), *Social Capital, Intellectual Capital, and the Organizational Advantage*, „Knowledge & Social Capital”, Vol. 23, No. 2, pp. 119–157.
- [32] Nakauchi M., Washburn M., Klein K. (2017), *Differences Between Inter- and Intra-group Dynamics in Knowledge Transfer Processes*, „Management Decision”, Vol. 55, No. 4, pp. 766–782.
- [33] Nicholls R., Mohsen M. (2015), *Other Customer Age: Exploring Customer Age-difference Related CCI*, „Journal of Services Marketing”, Vol. 29, No. 4, pp. 255–267.
- [34] Pardo C., Michel S. (2015), *Dynamics in a Distribution Triad – A Case Study*, „Journal of Business & Industrial Marketing”, Vol. 30, No. 8, pp. 915–925.
- [35] Parmentola A., Simoni M., Tutore I. (2018), *Fast and Furious: How the Open vs. Closed Dilemma Affects the Technology Diffusion Dynamic*, „Management Decision”, Vol. 56, No. 4, pp. 867–890.
- [36] Parris D.L., Dapko J.L., Arnold R.W., Arnold D. (2016), *Exploring Transparency: A New Framework for Responsible Business Management*, „Management Decision”, Vol. 54, No. 1, pp. 222–247.
- [37] Podolny J.M., Baron J.N. (1997), *Resources and Relationships: Social Networks and Mobility in the Workplace*, „American Sociological Review”, Vol. 62, No. 5, pp. 673–693.
- [38] Ritter T. (2000), *A Framework for Analyzing Interconnectedness of Relationships*, „Industrial Marketing Management”, Vol. 29, No. 4, pp. 317–326.
- [39] Rossetti C., Choi T.Y. (2005), *On the Dark Side of Strategic Sourcing: Experiences from the Aerospace Industry*, „Academy of Management Executive (1993–2005)”, Vol. 19, No. 1, pp. 46–60.
- [40] Schoorman F.D., Mayer R.C., Davis J.H. (2007), *An Integrative Model of Organizational Trust: Past, Present, and Future*, „Academy of Management Review”, Vol. 32, No. 2, pp. 344–354.
- [41] Smith P.C., Laage-Hellman J. (1992), *Small Group Analysis in Industrial Networks*, [in:] B. Axelsson, G. Easton (eds.), *Industrial Networks: A New View of Reality*, Routledge, London, New York, pp. 37–61.
- [42] Son B.G., Kocabasoglu-Hillmer C., Roden S. (2016), *A Dyadic Perspective on Retailer-supplier Relationships through the Lens of Social Capital*, „International Journal of Production Economics”, Vol. 178, pp. 120–131.
- [43] Stallkamp T.T. (1998), *Chrysler’s Leap of Faith: Redefining the Supplier Relationship*, „Supply Chain Management Review”, Vol. 2, No. 2, pp. 16–23.
- [44] Uzzi B. (1997), *Social Structure and Competition in Inter-firm Networks: The Paradox of Embeddedness*, „Administrative Science Quarterly”, Vol. 42, No. 1, pp. 35–67.
- [45] Wu Z., Choi T.Y. (2005), *Supplier-supplier Relationships in the Buyer-supplier Triad: Building Theories from Eight Case Studies*, „Journal of Operations Management”, Vol. 24, No. 1, pp. 27–52.

- [46] Xiao Z., Tsui A.S. (2007), *When Brokers May not Work: The Cultural Contingency of Social Capital in Chinese High-tech Firms*, „Administrative Science Quarterly”, Vol. 52, No. 1, pp. 1–31.
- [47] Yawar S.A., Seuring S. (2017), *Management of Social Issues in Supply Chains: A Literature Review Exploring Social Issues, Actions and Performance Outcomes*, „Journal of Business Ethics”, Vol. 141, No. 3, pp. 621–643.
- [48] Zhang J. (2018), *Structural Hole, Explanatory Innovation and Exploitative Innovation*, „Management Decision”, Vol. 56, No. 8, pp. 1683–1695.

Ewolucyjny charakter przewagi konkurencyjnej triadycznych łańcuchów dostaw. Perspektywa zakorzenienia społecznego

Streszczenie

W badaniu roli relacji międzyorganizacyjnych, służących osiągnięciu przewagi konkurencyjnej łańcuchów dostaw, można wykorzystać teorię zasobową oraz teorię sieciową. Niemniej wcześniejsze badania, które odwołują się do wyróżnionych teorii (przede wszyst-

kim teorii zasobowej), rzadko wspominają znaczenie kapitału społecznego w kształtowaniu relacji międzyorganizacyjnych, które umożliwiają dostęp do zasobów innych firm. W niniejszym artykule wykorzystano koncepcję zakorzenienia strukturalnego i relacyjnego w celu przeprowadzenia rozważań dotyczących zasobowej oraz sieciowej przewagi konkurencyjnej łańcuchów dostaw. Celem artykułu jest, po pierwsze, identyfikacja roli zakorzenienia w kształtowaniu zróżnicowanych, ale wzajemnie uzupełniających się poglądów na temat przewagi konkurencyjnej łańcuchów dostaw. Po drugie, celem niniejszej pracy jest rozpoznanie dynamicznego i ewolucyjnego charakteru przewagi konkurencyjnej łańcuchów dostaw. Przedstawione przykłady praktyczne świadczą o tym, że w określonych okolicznościach zasobowa przewaga konkurencyjna może migrować w kierunku sieciowej przewagi konkurencyjnej i, odwrotnie, sieciowa przewaga konkurencyjna może ewoluować w kierunku zasobowej.

Słowa kluczowe

zakorzenienie strukturalne, zakorzenienie relacyjne, układ zamknięty, luka strukturalna