

## **STRATEGIC CONTROLLING OF ORGANISATIONAL COMPETENCIES IN INTERNATIONAL SUPPLY NETWORKS (ISN) – CONTRIBUTIONS AND LIMITATIONS FOR GAINING SUSTAINED COMPETITIVE ADVANTAGE IN DYNAMICALLY CHANGING AND COMPLEX ENVIRONMENTS**

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### **Acknowledgement**

This research was supported by the German Research Foundation (DFG) as part of the Collaborative Research Centre 637 "Autonomous Cooperating Logistic Processes - A Paradigm Shift and its Limitations".

### **ABSTRACT**

The main contribution of this paper is to identify the need for a quantitative management-tool to manage organisational competencies in International Supply Chains in order to ensure the long-term survival of an International Supply Networks though complex and dynamic environments. Additionally contributions and limitations of existing tools in strategic controlling in respect to managing organisational competencies in International Supply Networks shall be evaluated.

### **COMPETITIVE ADVANTAGES IN ISN**

International Supply Networks (ISN) can be understood as systems that consist of different companies and supply chains who act interlinked in global markets (Hülsmann and Grapp, 2005). The difficulties and outcomes of the tendency to International Supply Networks can be described by phenomena like hyper-linking which emphasise that companies are not only connected to their direct business partners but as well indirectly to other actors within the business community (Tapscott, 1999). For the management in International Supply Networks these linkages imply that not only changes in the directly linked environment are notable but as well changes in the indirectly linked surrounding which causes complexity and dynamics (Welge and Al-Laham, 2003). This leads to the necessity for companies to generate not only temporary advantages but sustained competitive advantages in order to help the organisation to survive on the long run (Hicks and Gullet, 1975). Even if sustainable competitive advantages are hard to achieve (Williams, 1992), by introducing concepts and routines that enable the organisation to handle environmental complexity and dynamics in a flexible way and therefore to decouple from market developments a sustained competitive advantage might be achieved (Hülsmann et. al., 2008). Therefore, having the ability to react flexibly to changes in the interlinked environment could improve the competitive position of organisations because strategic flexibility enables an organisation to adapt to changes that have a substantial impact (Aaker and Mascarenhas, 1984). For International Supply Networks this could imply, that they would have the ability to react to changes in their hyper-linked environment adequately and in a long-term perspective (Hülsmann et. al, 2008). Referring to Wycisk et. al., who state that Supply Networks can be seen as complex adaptive logistics systems (CALs), autonomous logistics objects like RFID-chips or sensor networks and the organisational structure they are embedded into like an intelligent container

(Jedermann and Lang, 2007) could be a source for flexibility, adaptivity and emergence (Wycisk et. al. 2008). For that reason, logistical actors might develop a sustained competitive advantage by developing and managing technologies and the organizational structures they are embedded into in order to generate a sustained competitive advantage due to their ability to use technologies like RFID to react flexibly to complexity and dynamics in the environment and therefore develop business models that gain company value due to unique services.

## **ORGANISATIONAL COMPETENCIES AS SOURCES FOR SUSTAINED COMPETITIVE ADVANTAGE**

One approach to generate sustained competitive advantages is the competence-based view (CBV) who states that organisational competencies can be an explanation for a sustainable superior performance (Freiling 2004, p. 28). Freiling defines, that a competence is an "organizational, repeatable, learning-based and therefore non-random ability to sustain the coordinated deployment of assets and resources enabling the firm to reach and defend the state of competitiveness and achieve the goals." (Freiling 2004). According to that, having organisational competencies might enable an organisation to sustain competitive success and therefore increase the probability for the survival of the organisation in a long-term perspective (Sanchez 2004). According to Freiling, the competence-based view states, that an organisation can be more successful, if it is able to use available resources more effectively and efficiently than its competitors (Freiling 2004).. Other characteristics of competencies are that they cannot be imitated or substituted easily (Teece et. al. 1997). In the case of International Supply Networks, organisational competencies could emerge e.g. due to the use of autonomous logistical objects like the intelligent container and business models they are embedded in, because unique business processes and services might be developed. For example an intelligent container that is able to report, that transported food is starting to go to seed, could be redirected to a destination that is reached earlier. As a consequence the food could still be sold before being unworthy. This could enable an International Supply Network or a single logistical actor to distinguish from its competitors by offering unique services or by offering popular services with unique characteristics (e.g. traceability or higher flexibility). Therefore, developing and managing organisational competencies oriented by long-term and strategic goals of the organisation might be a way to ensure the long-term survival of International Supply Networks and its logistical actors (Hülsmann and Austerschulte 2008). On the one hand the emergence of organisational competencies might be coincidental on the other hand multiple concepts that aim at developing and using organisational concepts on purpose have been developed (Krüger and Homp 1997; Teece et. al. 1997; Sanchez 2004). But even if there are some concepts that aim at developing and managing organisational competencies, it is noticeable that these are all conceptual and not integrated into the organisational and managerial structures. Referring to Hubbard, one fundamental function to facilitate management of intangible assets and therefore organisational competencies is to operationalize these in order to make them measurable and hence controllable (Hubbard 2007). Therefore, if an organisation is aiming at

generating positive effects by using organisational competencies, the question is what kind of management tool is needed in order to analyze, develop and manage an intangible asset like an organisational competence, which requirements have to be fulfilled and how can such a management tool be integrated in the organisational structure of the organisation?

### **STRATEGIC CONTROLLING OF ORGANISATIONAL COMPETENCIES**

Strategic controlling is a part of the organisational function of strategic management. It comprises all controlling tasks that support the strategic leadership of an organisation like coordination of the supply with relevant information for strategic planning and control (Horváth 1996). Aim of strategic controlling is to imply processes for the controlling of strategies into the cybernetic controlling process in order to ensure the long-term survival of an organisation (Günther and Breiter 2007; Baum et. al. 2007). Therefore, strategic controlling would be the organisational function to enlarge, in order to make organisational competencies usable for strategic management and developing a competitive advantage in International Supply Networks in order to evaluate potentials of new technologies and their ability to enable flexible reactions to changes in the environment. Existing tools within strategic controlling to survey relevant information are for example SWOT-Analysis, strategic records, GAP-Analysis, portfolios or analysis of value chains which are mostly qualitative (Horváth 1996). Especially for knowledge-based strategic assets like organisational competencies different kinds of mapping approaches have been developed. These tools supply a visual landscape of objects and place them into relationships (Huff and Jenkins 2002). Up to know a qualitative approach for strategic competence mapping exists (Johnson and Johnson 2002), but this has not been adapted to the complex and dynamic conditions in International Supply Networks like different logistics actors and heterogeneous organisational structures. In contradiction to this, a need for a qualitative approach for managing organisational competencies in International Supply Networks has been identified earlier, what includes that competencies have to be identified, measured and compared to the intended strategy of the International Supply Network in order to adapt the competencies to future changes in the environment. According to this strategic controlling is still limited in view of facilitating a management-tool that might enable an International Supply Network to gain a sustained competitive advantage based on competencies, because relevant data can not be provided and heterogeneous structures are not taken into account. For this reason existing approaches need to be developed further to include quantitative data on the one hand and to cover special needs of structures in Supply Networks in order to use opportunities within strategic controlling and organisational competencies. Concerning to Hubbard, every intangible asset is measurable and needs to be measured in order to increase the informational bases for managing and to decrease uncertainty (Hubbard 2007). One approach that might overcome existing limitations in strategic controlling of International Supply Networks could be for example a mapping approach that is based on cause-effect structures of the evolution of competencies based on data concerning characteristics of competencies showing past, actual and possible future competence-bases. In addition,

organisational structures of the International Supply Network and its actors in relation to aimed strategies, technological options and possible future developments could be linked to the competence-map in order to detect missing, underdeveloped or outdated competencies. This might provide strategic management with necessary information to manage the competence-base in order to ensure the long-term survival of International Supply Networks due to competitive advantages that place the International Supply Network into position to react flexible to complexity and dynamics in the interlinked environment by embedding new technologies like RFID in unique organisational structures and business models and create unique services.

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