

WHY DO SERVICE LOGISTICS NEED SELF-ORGANIZATION? – A COMPETENCE-BASED ANALYSIS OF GLOBAL SUPPLY CHAINS IN THE MOVIE PRODUCTION INDUSTRY

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Abstract

Service Logistics presently are confronted with challenges like increasing environmental complexity and dynamics. On the one hand service demands of customers are rapidly changing and on the other hand there are multiple business partners, disposing of different competencies, involved in Global Service Supply Chains. To cope with these conditions, the need for flexibility as well as stability in global logistic planning processes becomes evident. Therefore this paper shall examine if competence building and leveraging can be improved by a management approach such as self-organization. Furthermore, it will be questioned if this approach offers any potential of application in international co-productions of the movie industry, focusing on logistics management.

Keywords: Global Service Logistics, Self-Organization, Competence Building & Leveraging, Movie Production

1. Introduction

In general, services can be defined as every kind of activity that contributes to the satisfaction of human needs (dimension of activity). Other characteristics are the capability to combine production factors (dimension of potential), the existence of a result or process benefit for a service consumer (dimension of result) and their process character, i.e. that services only develop through the participation of a service consumer as an external factor (dimension of process) (Meffert & Bruhn, 1995). A concrete managerial perspective in this understanding of services has to be seen in a globalized context. From such a perspective, service companies are involved in service supply chain networks, where they could be service consumer of another service producer themselves, and vice versa. "Activities, processes and structures of a number of organizations are interwoven worldwide, where the management has to deal with multiple interrelations between actors situated in distinctive economic, political and social environments." (Hülsmann, Grapp & Li, 2006: 495) Organizations which are part of those structures are legally separate, but depend economically to a certain degree on each other (Hülsmann & Grapp, 2005). This perspective represents one possible interpretation of »Global Service Supply Chains« (=GSSC).

In the sector of »movie production logistics« (=MPL), service logistics feature typical needs which are increasingly globalizing, too. Often movie productions are planned and organized among international companies in so called co-productions (Thiermeyer, 1994; Kindem, 2000; Wirtz, 2003). That means that a certain movie production project is realized by combining different services which contribute to the same project (i.e. that competencies are exchanged and resources are shared or service companies procure them for the mainly responsible movie production company). Despite global linkages among service companies, from a network perspective, resources and competencies (e.g. actors, costumes, technical support) have to be delivered to the set (Haase, 2003) »just-in-time« (Wildemann, 1990), in order to ensure effectiveness as well as efficiency of the movie production process.

This might lead to problems of complexity and dynamics which seem to be typical in GSSCs. A complex system could be considered as "the existence of many characteristics depending on one another in a section of reality [...]" (Dörner, 2001: 60). But not the quantity of elements is decisive for the complexity of a system. The existence of various inter-relations between the elements of a system and between a system and its environment determines the degree of its complexity (Dörner, 2001; Malik, 2000). In general, a logistic system such as GSSC is dynamic (Bäck, 1984), because its structure of elements, sub-systems etc. changes over time. For GSSC as a logistics system,

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institutions, persons and places as well as every resource or competence could be regarded as elements among which a spatial and temporal transfer takes place, e.g. between customers and service suppliers (Delfmann, 1998). In typical movie production logistic structures, there are existing many different and often rapidly changing service needs (e.g. technical, financial, and informational support), because of the temporal, project-based existence of such movie production systems (Picker, 2001), i.e. that different companies are involved. Therefore, by focusing especially on competencies in the movie production industry (=MPI), increasing complexity and dynamics in global service logistics planning processes can be assumed.

In consideration of the outlined problem context for GSSCs, different hypotheses shall be deduced: first, from the perspective of the competence-based view, there is a ubiquitous competence bundling and allocation takes place as an original logistic function in GSSC as well as in the MPI under complexity and dynamics (hypothesis no. 1). Therefore it should be asked how the ubiquitous competence bundling and allocation in the MPI is realized efficiently in service logistics management and how MPL-management is able to fulfill this task in a globalized context. Secondly, it is assumed that a selected management approach could advance competence building and leveraging in global service logistics which in turn might contribute to increase efficiency of the original function competence bundling and allocation for the MPI, too (hypothesis no. 2). The first main question of this paper is, how far competencies are required in GSSCs (e.g. MPI). Therefore, in a first step the paper analyses increasing complexity and dynamics as overarching problems of GSSC from a competence-based perspective. In a second step, the aforementioned problems will be illustrated from an MPI view. The second main question asks, if self-organization as one possible competence-orientated management approach can serve to deal with the occurring problems in GSSC. Therefore, the idea of self-organization, will be presented. The third main question is, how far a self-organized competence building and competence leveraging in GSSCs (here focusing on MPI as field of application) could be achieved efficiently. Therefore possible theoretical contributions of self-organization as an approach to cope with the mentioned difficulties will be described.

2. The Need of Balancing Flexibility and Stability in Global Service Supply Chains

2.1. Changing Challenges for Global Service Supply Chains

From the perspective of an interacting symbiotic eco-system, organizational structures such as GSSCs constantly have to adapt to changing and diverse environmental conditions in order to acquire necessary resources (e.g. information) and opportunities (e.g. consumer demands) to ensure their existence in a long-term perspective (Hicks & Gullett, 1975). For MPL-management this could lead to the necessity of exclusive cooperation with adequate partners that offer the needed services for a specific movie production project (e.g. to monitor the quantity and quality of service companies) and look for potentially successful movie projects (e.g. to produce corresponding to the demands of the viewer). However, access to resources and opportunities of the environment is limited (Sanchez and Heene, 1997) which is for example reflected by limited purchasing power because MPL-management is facing budget restrictions according to the individual movie budget.

Currently, GSSCs are facing hyper-competition (D'Aveni, 1995; Thomas, 1996). This describes a phenomenon under which businesses have to act proactively or react immediately on changing environments to compete in the fields of price-quality positioning or creation of new knowledge to build up services etc. (D'Aveni, 1995). Further phenomena influencing GSSCs are hyper-linking (i.e. that many different service partners are involved in the global service logistic chain) and hyper-turbulence (e.g. a current change of market demands for services) (D'Aveni & Gunther, 1994; Monge, 1995; D'Aveni, 1998; Xiao Li & Chuang, 2001). The mentioned phenomena lead to increasing complexity and dynamics in GSSCs. The consequence for the GSSC-management seems to be dilemmatic because on the one hand it should follow a strategy of rationalism. But on the other hand while there is an expanding complexity of its highly dynamic environment (e.g. pressure to develop and offer new services) it has to cope with rational decisions for single strategic alternatives that cannot be logically substantiated (Hülsmann & Berry, 2004). Especially in MPL-management a relatively long planning period is followed by a shorter production period. As a consequence, whatever has been strategically planned beforehand concerning the optimal coordination of its logistic service processes might lead to ad-hoc decisions of MPL-management during the production process if unexpected situations occur (e.g. a service partner, actor or crew member cannot participate in the specific movie production project). Presumably such ad-hoc decisions are less effective. That happens as reaction time for MPL-management is shorter and in consequence endangers a sustainable strategic MPL-management which has to decide based upon a limited quantity of information (Bronner, 1999).

To cope with this kind of increasing complexity and dynamics as problems, GSSCs have to focus on their system flexibility which from a social system perspective is needed for processes of integration (i.e. absorbing environmental complexity by opening the system's boundaries) and stability to preserve the system's identity (i.e. coping with internal complexity and differentiating from its environment) (Luhmann, 1973). Flexibility in GSSCs could mean to absorb for example service demands from the environment which can be understood as complexity, but in turn to gain stability and to end up with the absorption at the point in time when the maximum of processable service demands is reached. One possible alternative which relates to this kind of flexibilization and stabilization of companies (e.g. GSSC) could be the idea of competence management. In the competence-based concept, on the one

hand flexibility is a requirement for competence management as well as its result and then represents a competence itself. It represents a basic requirement for GSSCs as systems and permits the system to build and leverage competencies, such as networking competence (Zadek, 2004) or complexity absorption competence (Froschmayer, 2004). At the same time, flexibility is required to endow the system with the necessary adaptiveness to secure a sustainable existence of the system in a complex and dynamic environment (Hülsmann & Wycisk, 2005). Following this assumption, the competence-based perspective may offer a concept for GSSCs to integrate flexibility into its organizational structures. But in order to do so, organizational flexibility first of all must be generated. Three main aspects seem to be necessary for a system to increase its adaptivity: "flexibility as a basic requirement", "stability as a basic requirement" and "the need of a balancing between flexibility and stability".

But which is the competence-orientated background to focus on flexibility as well as stability as basic requirements for GSSCs? Both requirements are assumed to contribute to competence building and leveraging (Hülsmann & Wycisk, 2005). Considering flexibility as a basic requirement is necessary for every organization to adequately respond to potentially changing and diverse environmental conditions (Sanchez, 1993, 1995), e.g. new service logistic demands. An adaptation of corporate strategies is required, if circumstances are changing (Sanchez, 1997). A competence can be understood as „[...] the ability to sustain the coordinated deployment of assets in ways that help a firm achieve its goals” (Sanchez & Heene, 1996: 8; Sanchez, 2004: 521). From a GSSC perspective, strategic competence-based management could be one application of the competence-based theory. In a general meaning, competence-based management includes the identification, evaluation, arrangement, building and leveraging of the competencies of a company (e.g. Barney, 1996; Thiele, 1997, Hamel & Prahalad, 1997). Regarding the required flexibility, adequate (service orientated) competencies have to be built and leveraged (Volberda 1998) for GSSCs which ensure the existence and survival in a global competitive environment. In this context, Sanchez differentiates five “modes” of competencies: 1) cognitive flexibility to imagine alternative strategic logics (i.e. depending from the GSSC-management’s ability to perceive service market needs); 2) cognitive flexibility to imagine alternative management processes (i.e. creation of effective service organization designs as well as the definition of appropriate controls and incentives for monitoring and motivating the service-value creating processes); 3) coordination flexibility to identify, configure, and deploy resources (i.e. ability of GSSC-management to acquire or access, configure, and deploy chains of service-relevant resources); 4) resource flexibility to be used in alternative operations (i.e. range of benefits a service-relevant resource could have) and 5) operating flexibility in applying skills and capabilities to available resources (i.e. ability to make efficient and effective use of the system’s service resources) (Sanchez 2004).

Regarding general implications of the competence-orientated perspective, it has to be stated that a GSSC-management has to realize a strategic “fit” between the different modes of competencies and its environment. That in turn requires in the first place flexibility of the management itself. Management has to identify which modes have to be improved to finally optimize skill profiles of individuals as well as capabilities of work groups (e.g. capabilities in achieving logistic goals more efficiently) (Sanchez 2004). However, in an ideal case every key success factor should be considered, and a set of interrelating and balanced success factors has to be developed. This is necessary as it is assumed on the basis of the present status of research on competence management that only through a strategic “fit” organizational competencies could be improved for the whole organization (Bove et al., 2000) (i.e. for all service partners involved in the GSSC).

2.2. Transfer of Competence-Oriented from Global Service Supply Chains to the Movie Production Sector

How could the problem of balancing flexibility and stability in GSSCs from a competence-based view be interpreted for the MPI? Additionally it should be asked which competencies are needed by MPL-management to fulfill its logistic task efficiently, facing changing challenges of complexity and dynamics. Adapting this management perspective to the MPI regarding its logistic structures, a “dual competence-understanding” for MPL can be deduced. On the one hand, service competencies (e.g. technical support, transportation services) can be considered as a part of MPL. Such service competencies are needed for the realization of movie production processes. On the other hand, MPL-management must have an organizational competence as meta-competence (Bouncken, 2003), i.e. a competence to coordinate other competencies. It is necessary to plan (allocate) and arrange (bundle) the mentioned service competencies optimally (Purcell & Gregory, 2000). This demand for competencies has to be satisfied to fulfill logistic service goals efficiently (i.e. to ensure service quality, quantity, time, costs) (Arnold, 2002). In the following, this understanding of competencies in MPI shall be linked to the general requirement to GSSCs to build and leverage competencies by balancing flexibility and stability of the respective system. Competence building in general for GSSCs could be assumed as the acquisition and integration of competencies as well as the generation of required service knowledge, skills, and technology. Competence leveraging could be considered as the application of GSSC’s existing competence pool to market opportunities (Bellini, Capaldo, Raffa & Zollo, 2000; Purcell & Gregory, 2000). Analysing the original logistic function of MPL in the view of a strategic competence-based management, the focus seems to go beyond a perspective of a simple competence allocation and bundling. MPL-management so far focuses on generating a portfolio of competencies which is needed for the coordination of requirements for one specific movie production project, and arranges them

individually (Gaitanides, 2001). Probably, this is the case because of the mostly temporarily limited existence (short-term perspective) of a MPL-system (Picker, 2001) which in turn only allows a temporarily limited bundling and allocation, changing from project to project (Keil, 1999; Jones & Walsh, 1997). However, GSSCs from a competence-based view have the opportunity to build up a portfolio and even optimize the acquired, integrated competence pool in order to be adaptive, e.g. to logistic service market challenges (long-term perspective). Competencies of the involved GSSC-companies are part of a strategic competence management process (Purcell & Gregory, 2000). In a social system perspective, the status quo of MPL-management mainly seems to be based on a focus of flexibility to cope with its environmental complexity and dynamics in a short-term view (i.e. to cope with unexpected loss of service competencies). But problems might occur if MPL-management will not consider – as a regular GSSC-management – the stability of its service logistic processes (i.e. that needed services might not be available in an emergency case, if nobody is in charge of managing the competence pool). Following this line of argumentation, the question arises if there couldn't be any service logistic orientated potential for MPL-management from a competence-based perspective to widen its view. Should MPL-management maybe not only plan or bundle its set of competencies, but also leverage it for future demands for service competencies and thereby balance between flexibility and stability?

The decisive problem in the transferability of the idea of competence building and leveraging from GSSCs to MPL is that competencies are bundled for only one movie production logistic process. But even during the production (i.e. in pre-production, production, post-production), the quantity of service partners' competencies varies during different production phases (Picker, 2001; Wirtz, 2003, Lange, 1999). Service partners in this regard could be often seen as critical resources or competencies (Sydow & Manning, 2004) in "temporary systems" (Goodman, 1981). The changes in the competence pool and therefore also the structures of an MPL-system finally even seem to increase the above stated problems of complexity and dynamics. Except from bigger movie production firms (e.g. Warner Bros. or Bavaria Film) most competencies are not bundled for a long period of time in the MPI, and firms mainly focus on their core competencies (Wirtz 2003; Picker, 2001). From a general GSSC-perspective, the main risk is that effectiveness as well as efficiency are endangered as it could be just too expensive to permanently hold competencies as for example actors (Gaitanides, 2001). This is why especially inefficient service logistic planning seems to lower service quality (i.e. if specific service competencies are not available) as well as quantity (i.e. if the needed set of service competencies is not available), time (i.e. if service competencies are not available when needed) and place (i.e. if service competencies are not available where needed), originating from a lack in competence-orientation. Two questions finally seem to become evident: 1) How can GSSC leverage and build competencies more efficiently? 2) And furthermore, transferring the potential competence-oriented contributions to MPL, how MPL-management in a globalized context could be capable to fulfill competence bundling and allocation referring to the outlined competence building and leveraging effects?

3. Self-Organization as a Management Approach

Building and leveraging competencies in GSSCs is assumed to be one opportunity to cope with the problems of complexity and dynamics. However, how can the identified need for balancing flexibility and stability as a prerequisite of a service-oriented global competence-management of logistics be generated? Self-organization could be a concept to create the desired effects – a point to be examined later. Now, the concept of self-organization shall be presented briefly concerning its origins, main statements, and regarding its development as a management approach.

Self-organization emerged from multiple sources. Its historical roots are spread over various academic fields, e.g. natural science, philosophy, and sociology, and goes back to at least 500 BC to Heraklit and Aristoteles who identified self-organized processes in natural phenomena (Paslack & Knost, 1990; Paslack, 1991). All studies of self-organization had one thing in common: they aimed to identify and to explain general principles concerning the question of how complex systems autonomously create ordered structures, e.g. the research of Von Foerster (1960) (cybernetics), Prigogine and Glansdorff (1971) (chemistry), Haken and Graham (1971) (physics), Maturana and Varela (1980) (biology). The approach of autopoiesis of Maturana and Varela (1987) for example analyses and describes the self-organizing processes of living systems, diffused into various scientific fields, such as sociology with reference to Luhmann's systems theory (Luhmann, 1994) or as well as to business science (Probst, 1987; Kirsch, 1992; Malik, 2000; Hülsmann, Grapp & Li, 2006).

The main statement showing the convergence between the different research fields is that all studies equally deal with dynamic and complex systems, no matter if such phenomena are natural or social, but the focus of study is rather the complexity of their internal and external relationships, comprising and constituting their behaviour (Dörner, 2001; Malik, 2000). In the present discussion, the terminological differentiation into self-management, self-organization and autonomous cooperation shows the variety in the understanding of this approach. Self-management is considered to be the most extensive understanding. It could be regarded as the completely autonomous design of a system by itself: autonomous goal, planning, organizational, and resource decisions (Manz & Siems, 1980). Self-organization as part of management describes the way of creating ordered structures in a system out of itself, i.e. the process and structure design of a system based upon its own capability (Probst, 1992; Bea & Göbel, 1999). From the

basic idea of self-organization, the specified understanding of autonomous cooperation evolved. Autonomous cooperation in a general sense means the capability of a system to form itself with its own facilities. Whereas autonomous cooperation in a narrow sense describes decisions of system members in externally organized processes based upon specific situative parameters (Herzog et al., 2003).

One current definition of this approach, developed in an interdisciplinary research center, is that "autonomous cooperation describes processes of decentralized decision-making in heterarchical structures. It presumes interacting elements in non-deterministic systems which possess the capability and possibility to render decisions independently. The objective of autonomous cooperation is the achievement of increased robustness and positive emergence of the total system due to a distributed and flexible coping with dynamics and complexity." (Hülsmann & Windt, 2006). In the concept of self-organization there are attributes such as autonomy, interaction, redundancy and non-determinism as overarching characteristics which can be derived from the perception of the concept of self-organization, the origin of autonomous cooperation.

What do these attributes mean referring to their origins? *Autonomy* describes structures that evolve on their own, e.g. that they autonomously arrange themselves from a chaotic state to a profoundly structured state (Haken, 1987) and are named autonomous patterns (Prigogine & Glansdorff, 1971). In the context of business science, this attribute is characterized by processes of delegation and decentralization. Consequently, autonomy can be understood as the degree of autonomous decision-making processes among the company's employees (Kappler, 1992). The development of a self-organized order within a system can be seen as the result of *interactions* of different system elements (Haken, 1987), e.g. between employees, departments etc. It is expected that these are not related to individual system components. However, researchers emphasise that their interactive behaviour is the result of synergistic effects. Through self-organization, an increased level of quality can be gained which can be measured by an improved ability to cope with complexity and in turn by a better fit of system structures and environmental challenges (Hülsmann & Wycisk, 2005). The characteristic of *redundancy* describes that each element or subsystem in the whole system is equipped with the same assets and abilities (e.g. individual qualifications of the employees). Whether the function of ordering in the process of self-organization is taken over by a specific element mainly depends on the quantity of information it has (Probst, 1987) and the possibility to render decisions. *Non-determinism* can also be found in all self-organizing systems. This characteristic means that the system behaviour cannot be causally predetermined (Haken, 1983; Prigogine, 1996). However, in a social self-organized system, general rules of decision-making have to be predetermined (Hülsmann & Windt, 2006) so that the system reaches the desired state (e.g. attaining its goals).

What could this understanding of self-organization mean in a theoretical management context? From a social system perspective, this concept means shifting operative decision-making to its sub-systems, -units, and -elements while the individual system components operate independently from centralized decision-making structures (Probst, 1987). Intelligent systems with adaptive capabilities on a local level a required which however follow global goals such as service levels. The application of this management approach results in positive as well as negative effects which show some possible theoretical contributions to management. One positive effect among others could be that higher flexibility and stability could be achieved by shifting the responsibility of decision-making and coordination to smaller organizational units as well as their relation to other units inside or outside the respective system. Thereby, especially managing capacities will be improved as less coordination of a central planning is needed. One negative effect among others could be that risks evolve. For example, the total stability of a system could decrease due to a diminished identity of the system as a whole caused by sub-system egoism (Hülsmann & Grapp, 2005). That means for single systems that their individual degree of autonomous cooperation is probably too high so that they might misuse the freedom for decision-making (i.e. to render decisions which do not serve the system's global goal of service orientation).

4. Possible Contributions of Self-Organization to Competence Building & Leveraging in Global Service Supply Chains

4.1. Effects of Self-Organization to Global Service Logistics

After having presented self-organization as one possible management approach to allow competence building and leveraging, it is the aim of the following chapter to show some theoretical contributions of self-organized processes to competence building and leveraging in GSSC on a first level of analysis, i.e. it is intended to analyse how GSSC leverage and build competencies more efficiently by the application of self-organization (1st level of analysis). On a second level of analysis, the potential competence-orientated contributions shall be transferred to MPL, i.e. how MPL-management could be capable in a globalized context to fulfill competence bundling and allocation referring to the outlined competence building and leveraging (2nd level of analysis). In this section, some possible contributions of self-organization to build and leverage competencies in GSSC shall be shown and illustrated for MPI by examples. To analyse effects of self-organization, it is intended to use the dimensions of quality, quantity, space, and time as general analytical criteria of business science contexts. As flexibilization of GSSC is supposed to represent the counterpart of the system's stabilization, a trade-off between both poles always has to be assumed. That means a positive effect of self-organization on flexibility implies a negative effect on

stability, and vice-versa (Hülsmann & Wycisk, 2005). The main focus of analysis will be on flexibility, because the creation of flexibility always seems to be the first step for coping with environmental challenges by opening the system's borders before they have to be closed again to stabilize the system in the second step.

4.1.1. Qualitative Aspects

For example, regarding the characteristic of autonomy, self-organization contributes to develop various patterns of competencies along with constantly changing environmental conditions because GSSCs as systems as well as their sub-units attain the required flexibility to let evolutionary processes regarding competencies take place (Hülsmann & Wycisk, 2005). Whenever e.g. service competencies are needed in a GSSC, they could be autonomously formed exactly fitting to the respective needs of the system as well as to the service partners involved or to the affected customers' demands. This adaptivity of GSSC implies a higher quality of its competencies which need to be build up in the ideal case whenever it is required (e.g. MPL-management might be burdened with less risk for its logistic planning: quality of competence bundling as well as allocation as in the case of an unexpected situation such as unavailable resources on the set could be covered because a flexible reaction is possible, i.e. that problem solution could be managed by professionally educated movie production staff with fundamental knowledge in service logistic management).

4.1.2. Quantitative Aspects

In terms of quantitative aspects, self-organized GSSC could improve competence building and leveraging through processes of decentralization, e.g. by a heterarchically organized structure, all the absorbed complexity is distributed among its diverse sub-units and elements (Kappler, 1992), e.g. local service partners which are globally situated. This means that the total complexity is reduced to a partial one for GSSC-management. GSSCs seem to gain flexibility and act flexible as competencies do not have to be planned and designed for every involved service partner individually anymore. But it is possible to hand over the competence for decision-making on competence-building and leveraging to a certain degree to the responsibility of companies involved in GSSC (e.g. MPL-management could set up a pool consisting of specific core competencies from logistics service providers: bundling and allocation depends on the specific movie production project (e.g. small movie or block buster) but could be optimized by systematically building and leveraging a pool of competencies out of which the needed ones can be integrated into the specific movie production logistic process).

4.1.3. Spatial Aspects

A spatial closeness to the operational level of work could be assumed if service companies in GSSCs are empowered to make autonomous decisions through delegation (Mullins, 2005). Only the specific service partners in GSSCs know which competencies are needed at which point of time as they operate at the direct point of action and therefore get the relevant information how to leverage competencies for necessary decisions for the production logistic process. Therefore a high degree of interaction among the employees in a self-organized GSSC, provided by the spatial closeness of the service partners, is important. They exchange information directly and not via a centralized planning unit (GSSC-Top-management level). This could mean that processes of delegation and decentralization in GSSC require a higher degree of interaction between the involved service companies (Laux & Liermann, 1993). It could be assumed that self-organization especially contributes to leverage existing competencies in GSSC. For example, if certain employees are talented in communicating they should be further educated and supported so that they can be installed in interface management between the different companies of GSSC (e.g. MPL-management needs a relationship management: leveraging its competencies in terms of spatial aspects of self-organization goes beyond the bundling and allocation and emphasizes the need to install long-term relationships among its service partners, i.e. to be always well informed about the capabilities of each specific company that could be potentially part of the next movie production project; this ensures an up-to-date competence pool from the perspective of an MPL-management, but also gives service partners the opportunity to constantly adapt their logistic competencies which are needed in movie production).

4.1.4. Temporal Aspects

Because of the existing context of a temporal effect of flexibility in autonomous cooperating structures and spatial closeness of autonomous decision-making, it can be stated on the one hand that the process of decision-making becomes less time-intensive and on the other hand easier to handle as the information flow among GSSC-companies becomes faster. For example, improved personal customer services can be immediately generated. This means required information can be made available in the right place and at the right point of time. Thereby, GSSC could flexibly react towards environmental changes (Hülsmann & Wycisk, 2005). Furthermore, with a high degree of interaction and exchanged information, the elements learn increasingly more about each other's capabilities and know-how, e.g. realized by job rotation or job enlargement (Schreyögg, 1998; Mullins, 2005). Referring to the characteristic of redundancy, every GSSC-company or -employee could fulfill the same logistic task. By such processes of competence building and leveraging there would be no delays anymore because a flexible reaction is possible at any time (e.g. MPL-management has the opportunity to react faster: even though a certain set of

competencies has been bundled and chosen for a specific movie production project, it will be possible to react to the many different changes and challenges during one production logistical process, i.e. that it should be the goal for MPL-management to employ crew members who are all equipped and educated on the same needed level to cope with whatever situation might occur).

4.2. Implications of a Self-organized Movie Production Logistics Management

As it has been shown, flexibility as prerequisite and competence as well as stability could be partially generated by the application of self-organization and in turn be enabler for competence building and leveraging processes. In the section above it was stated that flexibility and stability are both needed to cope with complexity and dynamics in GSSC-structures as well as in the MPI. In consequence, the question arises what from a competence-based perspective the most important implications for the MPI that should be reminded by a MPL-management are? Therefore now possible results of a competence-based orientation enabled by self-organization in MPI will be outlined and the main effects for MPL-management will be sketched in a brief overview. This will be explained systematically for the two general levels of management from an operational (i.e. short-term, specific, and concrete) and strategic (i.e. long-term, general, and abstract) perspective. In MPL-management, the operative management perspective has to be understood as situation-related realization of the strategic logistic goals (Remer, 2004). From an operational perspective in MPL-management, especially flexibility seems to be necessary for the movie production process as a project, if it takes place in an unpredictable, changing and uncertain environment. In contrary, a strategic perspective MPL-management is mainly based on stability because it refers on production from the view of a movie production studio, e.g. representing a more stable environment with fewer changes. Coming from a resource-based management approach which emphasizes the differences in effectiveness for property-based (e.g. long-term contracts with actors) and knowledge-based (e.g. the development of particular technical or creative skills) resources (Miller & Shamsie, 1996) in this paper a perspective on competence building and leveraging in the MPI has been developed. The main implication of a self-organized MPL-management on the operational level seems to be that a fast reaction will be possible regarding its arrangement of competencies, if unexpected situations lead to a competence loss. As a short-term effect, single competencies are always available and could potentially satisfy the competence demand for a movie production project which is realized among global partners. This in turn is closely linked to the strategic management perspective of MPL-management. In such a strategic view imponderabilities lead to less risk for a movie production, as competence building and leveraging in MPI could be managed by a competence portfolio which contains the relevant competencies for providing its operative management with the needed competence input. This implies that MPL-management has to take care for its portfolio and systematically build and leverage its competence pool that should always contain strategic logistic management competencies. Thereby, operational management gains the opportunity to act more flexible but also needs to give a feedback to strategic management. This is necessary, if the installed competencies cannot be adequately integrated into the logistic process of a movie production (e.g. because of missing knowledge about movie production business). By this feedback system MPL-management could maybe adapt its future competence building and leveraging based on direct information out of movie production processes.

5. Prospective Research on Service Logistics in the Movie Production Industry

In theory, it is expected that there are positive effects on competence-building and leveraging for GSSC as well as in the MPI which can improve its basic logistic function of competence bundling and allocation through self-organized processes. However, these mainly theoretical contributions still bear realization problems regarding the application of the theory of self-organization. Such limitations regarding its realization can be identified, coming from the characteristics of GSSC and the MPI. A general criticism on competence-based management in MPI has been presented focusing the fact that movie production is a more or less project based enterprise. But to develop and leverage competencies is assumed to be a process over a long period of time (DeFillippi & Arthur, 1998). This section will reflect about some possible realization problems in GSSC and illustrate the existing problems for MPL-management, which represent a potential for prospective research questions. As a starting point, the characteristics of service logistic structures such as GSSC (introduced in the 1st chapter) will be taken as criteria for a possible realization of the thoughts developed in this paper. In GSSC, service partners can be considered as globally dispersed. Does the statement “think global, act local” (Sjurts, 2004) not bear realization problems for competence building and leveraging in movie production companies? It could happen that egoistic behaviour of those service partners who only pursue their own competence needs evolves. For MPL-management in an international co-production, this could lead to difficulties in monitoring, if preparations of service partners (e.g. during pre-production phase) are done properly. In consequence, the risk could evolve that certain competencies are not leveraged the way the MPL-management wants them to be. A further characteristic is the service hybridization between service consumer and provider in GSSC. The question for GSSC then always is, if services should be made or bought (Walter, 2003). In MPL-management, depending on the size of the respective movie production project (i.e. regarding its budget), it could be risky besides the question of costs to shift responsibility for competence-based management to an unknown partner because of insecurity concerning the quality of the service partner’s competence

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building and leveraging. Another characteristic of GSSC describes the multiple interrelations between service partners. But how can long-term relationships among service partners be established, while many different interests and changing service demands have to be considered? As a realization problem for MPL-management, not every service partner will be available for specific projects, e.g. a relationship management is needed (Paul & Kleingartner, 1994) for a constant improvement of service partners' competencies. In reality, it is typical for movie productions that they are limited to a short period of time and availability of competencies.

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