

A Separation between Supply Chain Management and Supply Chain Governance

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Abstract

Governance and management are commonly debated at firm's level as two inter-related concepts. As supply chains and networks of firms tend to become the most important players of the economic world, one question addressed within this article is whether at supply chain level these two concepts have specific and different meanings. A theoretical review is performed. The main conclusion is that a real differentiation has not been yet performed, as long as the interest for supply chain governance between supply chain practitioners and researchers is very low.

Keywords: *supply chain management, supply chain governance, business networks.*

JEL classification: M10, M16, G34

Introduction

The economic theory is related to firm's theory and consequently most economic disciplines are firm focused. Does this approach reflect the real-world situation? The chain paradigm is in our view the practice of the moment, while the classic firm is an old concept. The foundation of the chain paradigm is the Value Chain Model, re-discovered by Porter in 1985. The term chain, referring to transnational corporations, has been previously used in the 1960s and 1970s in mineral-exporting economies, referring to eight main activities performed for producing and selling primary commodities. The competitive advantage is created within each activity performed in order to realize a product. All these activities creating value are called value chain. Within the firm, the value chain analysis of value-adding activities (those for which the value exceeds the costs) and non-adding value activities is one key approach for redesigning firm's processes. Over firm boundaries, the value chain is a set of activities performed by different firms, called value system. The value chain and the value system are both useful for identifying the competitive advantage creation (Porter, 1998: 33-118). The economic activity can be explained within this chain paradigm as a flow of goods.

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One alternative for improving competitiveness is the use of the value chain paradigm over firm boundaries. At theoretical level, this has happened with the appearance of supply chain management. In 1982, Oliver and Webber have introduced the Supply Chain Management (SCM) concept (Oliver and Webber, 1982: 63-75). "What were hitherto considered "mere" logistics problems have now emerged as much more significant issues of strategic management... We needed a new perspective and, following from it, a new approach: Supply Chain Management." The main focus was on fixing the suboptimal deployment of inventory and capacity caused by poor coordination between different groups within the company (Feller et al., 2006: 3). The supply chain is lately defined as "a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances and/or information from a source to a customer" (Mentzer et al., 2001: 4). For sure, supply chain management is the management of this flow, it involves planning, organizing, leadership and control.

The main question we address within this article is whether a superior form of coordination exists within these chains, beside the form of supply chain management form, already observed by numerous researchers. As long as at firm's level the superior form of coordination for management is governance, we have studied whether this form of coordination exists at supply chain level. Does supply chain governance (SCG) exist? One subsequent question is: which are the differences between SCM and SCG? A theoretical separation is built within this article.

The flow of this article is the next one: within the first part governance is presented as an economic and non-economic concept, within the second the SCM frameworks are presented, while SCG frameworks are presented within the third part of the article. The conclusions and the separation between SCM and SCG are presented within the last part of the paper.

1. Governance – economic and non-economic concept

Governance is found at different levels within society: international, national, regional, firms, group of firms, non-profit organizations. A large diversity of research interests and approaches related to governance exists. For this article, governance is defined as the rules, the structures and the institutions that guide, regulate and control social life, which are emanated from power (Barnett and Duvall, 2005: 2). Though the definition is made by political scientists, we think it covers the entire research area of governance. A first simple explanation of the definition shall be made considering the position of a citizen. Since social structures such as tribes, cities, and national states exist, all the citizens are governed. Governance is not about giving orders to citizens, but about establishing the limits where they have to live. The rules (defined nowadays as laws) are the limits. In order to make rules to be followed, structures and institutions are introduced. These institutions ensure guidance, regulating and controlling citizens' life. However, these laws shall be not

followed and these processes shall not take effect if the citizens do not conform. Obedience exists if the institution which establishes the rules and performs the control process has power. Power is shortly defined as the ability to influence others' actions.

Considering the systems to be governed, there are several levels of governance. If we take into account the seven levels of living systems (Haines and Aller-Stead, 2005), we consider that the last five system levels can be governed, and we give examples:

- 1) Cells – cannot be governed;
- 2) Organs – cannot be governed;
- 3) Organisms – humans;
- 4) Groups – teams, departments, units;
- 5) Organizations – companies, public and non-profit organizations;
- 6) Community and or society – communities, cities, regions within countries, nations;
- 7) Supranational systems – regions compound by several countries, earth.

For each system there can exist governance. Within literature, we find several details regarding governance for the third systems level (organisms): national governance affects people. For the fourth and fifth systems levels (groups and organizations) there exists corporate governance within companies, public and non-profit organizations. The sixth level (community and or society) is governed by multiple systems: international, national, regional, and community governance are all forms of governance for communities or society. The seventh level has global governance. There are many concerns during this crisis for reducing the level of malfunctioning within companies over the world and there is a common quest whether actual national and international governance is capable to insure the control and the right path for both companies and individuals.

For each systems' level there can exist institutional, structural or productive power, which will generate governance, will create written or non-written rules, will guide and will control the actors. There is much confusion between national governance and governance in general. The truth is that the national government is only one of the rulers, which acts at the fourth level of living systems. At a rural level – community level – other actors such as farmers' associations, scientific institutes, religious leaders, finance providers or even individuals can be the real governors if they own one power force (Barnett and Duvall, 2005).

Going back to the economic world, governance is not decision-making, is not management, but is the framework wherever decision-making is made, for any system. Not any institution that issues rules is considered a governance creator, a government or governor. Only the institutions which have power are real governance sources. The act of governance is related to power. Power is the capability of one actor to determine the circumstances and fate of another actor. Within firms, power can be identified as the capability of shareholders to influence managers' actions. Between firms, power can be defined as the capability of one firm to influence the actions and the decisions of another firm (Burgess et al., 2006: 3).

2. Supply chain management frameworks

The term supply chain has been highlighted by several researchers. From an organization theory point of view, the concepts of SC and SCM have emerged simultaneously with their systemic perception. The system theory of the 20th century provides a radically different organization-related paradigm, i.e. the transition from an atomistic representation of a company's constituents to a relational representation that marks a leap forward rather than a superficial improvement of older theories regarding organizations. The organization is a system made up of several sub-systems that may in turn be made up of several sub - sub - systems that interact. The organization is part of a greater whole, being a system open to its environment.

There are several groups of authors (generically called schools) that interpret the place and role of SCM at organizational level (Delfmann and Albers, 2001):

- 1) The functional chain school. A definition was provided by Houlihan in 1988: „SCM enables the flow of goods from the supplier to the manufacturer, to the seller and to the final consumer". The emphasis is therefore laid on both flow of materials and agents involved in this flow;
- 2) The relationship or logistics school. This one focuses on the coordination of the relations between the partners, which may lead to the improvement of the competitive advantage. According to Turner (1993) „SCM is a process that includes all the relations within the chain between the suppliers, various levels of production, storage and distribution to the final consumer";
- 3) The informational school emphasizes the flow of information between the partners of a SC. Johansson defines the SCM in these terms (2004): „The SCM's primary requisite is that all members of a SC are well informed. With the SCM, information flow becomes a critical element of a SC's overall performance";
- 4) The integration or process school looks past the various agents of the SC and emphasizes the processes carried out along the supply chain. Cooper, Lambert and Pagh provide a definition in 1997: „the integration of the processes within a SC is what we call SCM". They regard the SCM as a universal strategic alternative, as any company is able to choose this integration and informational & managerial dependence alternative;
- 5) A new school of thought pertaining to SCM has recently emerged: the collaboration school (Verduijn, 2004), with Mentzer as a notable representative. He defines collaboration as a long-term relationship between organizations, in the sense of a common pursuit. Collaboration has become evident in practice, as several companies work together in order to exercise an adequate management of the SC:

planning, execution, performance assessment, all these are performed jointly.

Our understanding is that there are no significant differences between the integration school and the collaboration school. These schools have brought the concept into popular awareness, making a valuable contribution to the development and improvement of the public perception of SC and SCM. However, it was the globalization of the big corporations' activities, the global competition and the advances in IT, rather than the popularization efforts of these experts that persuaded most of the practitioners that collaboration is the only viable solution for the future. SCM is the management of the SC, the understanding of the SC has to be made before.

The definitions regarding the SC are scarce as most authors rather insist on clarifying the concept of SCM. For a given company, three levels of SC can be defined (Mentzer et al., 2001): direct supply chain - it includes the company, a supplier and a customer that participate in the upstream or downstream flow of a product, extended supply chain - it includes the company, the supplier's immediate suppliers as well as the customer's immediate customers and fundamental supply chain - it includes all the suppliers and customers involved in the production and delivery of the product, both downstream and upstream. A similar perception is that a SC can be identified as company-related (the totality of closely-related partner companies upstream and downstream), product-related (the totality of companies that contribute to the manufacturing of a specific product of the company) or generically company-related (all the partners involved in the production and delivery of all products (Quyale, 2006)). It should be noticed that the differences concern the perception of the SC, not the SC itself. Some perceive and understand it to be rather narrow (the extent of the SC depends on the collaboration between the companies), while others think that a SC is extended, as it exists regardless of the collaboration between partners or the lack thereof. Mentzer's analogy is fully fitting (Mentzer et al., 2001): the river exists and the water flows downstream just like the products in a SC, regardless of the fact that someone becomes aware of the possibility of a global management of the river basin or not. If several states share the same river basin, only cooperation enables them to achieve clearly-defined goals pertaining to it, as none of them taken separately would be able to implement decisions for the entire basin because of existing state borders. The SC (the riverbed) and the flow of goods (the water) exist anyway, with or without SCM. It must be noted that most researchers stress the fact that a SC equals the group of companies that participate in the creation and delivery of a product, in the creation of supply and do not insist that SC refers only to those companies involved in the flow of goods, i.e. logistics. It is, in fact, the group of companies that participate in the creation of supply. For that reason, it is called a demand chain. In our view, logistics is only one of the many games that are played within a SC, such as marketing, production, R & D, SC quality and overall performance assurance.

Regarding supply chain management, it is one of the most used concepts in business. But, despite its popularity there isn't a general understanding of its

meaning. SCM is seen either as a collaboration philosophy, either as management processes within a SC, either as just an operational concept from logistics (Mentzer et al., 2001, Burgess and Singh, 2006). The degree to which SCM is implemented should be reflected in the way the partners are collaborating, the success of the operation as a whole. SCM philosophy would require synchronization and convergence, both inter and intra organizational (Mentzer et al., 2001). As a management processes, SCM is defined as all the activities concerning planning, organizing, coordinating, and controlling of the supply chain, aimed at serving customers better and meeting their needs. We refer to management of materials, information, and all business functions at SC level. If we have an integrated management, then we have a successful SCM. Among the managerial processes, we recall (Mentzer et al., 2001): customer relationship management, customer service management, order management, production management, supply management, innovation management, sales management, logistics management.

The activities within SCM have evolved from the management of logistics activities to information management, management of the relationship with partners and of the overall performance. The benefits have evolved from cost and service related to logistics to strategic benefits, increased customer satisfaction, increased effectiveness and efficiency at SC level. The actors have evolved according to the perceptions of the SC. We believe that are important the processes assigned to SCM by specialists. SCM includes the following processes (Burgess et al., 2006, Verduijn, 2004, Van Goor, 2001): strategic leadership, intra-organizational and inter-organizational relationship management, logistics management, continuous improvement - quality management, management information systems, performance management, marketing processes, R&D, product design.

3. Supply chain governance frameworks

Within this paragraph a general review of supply chain governance paradigms is performed.

The main paradigm for chain governance is that launched by Gereffi and collaborators, the global value chain (GVC). Though they found that the international trade is organized by stable networks of firms (Schmitz, 2004: p.29), our opinion is that the GVC framework refers to pair-to-pair governance and not network or chain governance. The classical chain, which the group of researchers following this paradigm refers to, is one with a leading partner (buyer or producer driven) and several small partners. The governance approached by them is that between a leading firm and a partner. In this paradigm, governance is defined as the coordination of the “authority and power relationships that determine how financial, material, and human resources are allocated within and flow within a chain” (Gellynck and Molnár, 2009). They establish a set of alternatives for value chain governance: market, modular, relational, captive and hierarchy (Gereffi et al., 2005). The GVC is dominated by transaction costs economics. In this sense, the passing from one state of governance to another is determined by the costs of transaction.

The most efficient form shall be selected. Our opinion is that this taxonomy refers only to a leading-firm – partner relation. There exist chains which concurrently contain market governance (for new entrants), firms – modules for the chain (modular governance), mutual dependence between partners (relational governance), but also captive firms (captive governance) and in-house or vertical integrated firms (hierarchical governance). Another argument is that there are many similarities with the vertical coordination continuum, a model proposed for explaining the steps a firm shall develop strategic partnerships. The relation within the continuum starts from spot/cash market, the next strategic option is that of contract with specifications, then relation-based alliance, equity based alliance and the last is vertical integration (Peterson et al., 2001). The truth is that both models reflect the steps from market relations to vertical integration. The cases presented by Gereffi et al. are macro-economic tendencies regarding one industry. One example they give is that vegetables' market has evolved from market governance to relational governance. The reality is more complex; those chains are composed from several partners. A multinational company can have thousands of suppliers from different industries, and while one is dominated by relational governance, the other is still in a hierarchical or market paradigm. Within the same industry, one can be a supplier for a great chain with an important brand (hierarchy), while others are at the phase of providing specific services for which they are considered important partners (relational or modular governance).

Multiple issues are approached according to this paradigm: who is the leading firm? (it can be a Multi-National Company (MNC)); knowledge transfer between partners (Pietrobelli and Saliola, 2008); relation governance content (legislative, judicial and executive value chain governance is identified) (Kaplinsky, 2000); quasi-integration mechanisms between partners (Cai et al., 2009); the content and the distribution of contractual and relational governance (Carey and Lawson, 2011); the agency theory in buyer-supplier relationships (Whipple and Roh, 2010); equity versus non-equity alliances (Kuittinen et al., 2009).

This paradigm is supported by many other authors, with similar approaches. One specific model for governance of chains was that of Ghosh and John in 1999, called Governance Value Analysis (GVA). GVA is an extension of transaction costs economics; Ghosh and John transform TCE in a value creation theory (Hammervoll, 2009). Unfortunately, GVA and GVCG are both based on the classical economic theory of the firm. Governance is in this case a problem of allocation of resources between partners, while the exchange is the only issue analyzed in such models (Hammervoll, 2009).

A more complex framework for chain governance is the GPN governance. Yang and Coe (Yang and Coe, 2009) consider the disadvantages of the GVC governance approach, accepting that it does not reproduce the multitude of relations within a network. These relations exist concurrently within the industry and within one industry. They also suggest that dividing buyer and producer chains is no use while facing GPN complexity. There are no details regarding a specific mechanism

for GPN governance, but there are explained many details regarding partners' coordination mechanisms that exist in Taiwan and China.

Another framework is the sustainable chain governance, one responding to the main problems that global chains, as Apple, Nike, H&M, Dell, have at this moment: suppliers' conduct, environmental responsibility and reputation. Long periods of time chain coordinators have used different suppliers who did not take into account any ethical or environmental concerns. Criticisms of perceived social and environmental deficiencies have dramatically increased; there exist several civil organizations acting as advocates for these fair causes. The adoption of sustainable practices aimed at managing and anticipating potential legitimacy and reputation threats due to misconduct along the supply chain is now a common practice for most chains. These criticisms have led to a specific type of governance, called sustainable supply chain governance (Blowfield and Dolan, 2010). The answer is an increased control for these partners, since one lead firm can no longer care about the actions of chain partners. This framework insists on the control mechanisms and incentives for obtaining a better global chain (Vurro et al., 2009).

According to the already presented supply chain governance frameworks, we can estimate that GVC is a partner-to-partner model. The other two presented frameworks underline the importance of real chain governance, which involves the influence of partners' actions and the control of these actions.

Conclusions

Supply chain management is an older concept than supply chain governance. However, the content of supply chain management is still debated by researchers, this fact influencing the answers to our questions.

Can and should exist supply chain governance, as a superior system to supply chain management? If we consider supply chain management as an integrative system for the coordination of operations within the chain (the logistics view), as it is commonly defined, then a superior system is needed. Even if we consider supply chain management as the strategic coordination of partners' actions, still a superior system which ensures the implementation and the control of these actions is needed. It is still to be proofed in practice whether real supply chain governance exists, but in theory it could exist.

Which shall be the differences between the two systems? One is focused on competitive advantage at present (supply chain management through operational and strategic actions focuses on costs of differentiation advantage), while the second should be worried about the evolutionary aspects of the supply chain (SCG). However, strategic supply chain management could be the one element to replace the need for a supply chain governance system. But governance, considering the classical theory, is also about power, about ruling the actions of all partners. SCG is in this case a wider concept which has all chances to exist as a different element in relation to SCM. One question is whether such superior systems really exist within supply chains, but this shall be considered in a future research, containing case studies related to supply chain governance.

References

1. Barnett, M., Duvall, R., 2005. *Power in global governance*, Cambridge University Press, pp. 1-10.
2. Blowfield, M., Dolan, C., 2010. "Outsourcing governance: Fairtrade's message for C21 global governance". *Corporate Governance* 10, 484-499.
3. Burgess, K., Singh, P., 2006. "A proposed integrated framework for analysing supply chains". *Supply Chain Management: An International Journal* 11, 337-344.
4. Cai, S., Yang, Z., Hu, Z., 2009. "Exploring the governance mechanisms of quasi-integration in buyer-supplier relationships". *Journal of Business Research* 62, 660-666.
5. Carey, S., Lawson, B., 2011. "Governance and social capital formation in buyer-supplier relationships". *Journal of Manufacturing Technology Management* 22, 152-170.
6. Delfmann, W., Albers, S., 2001. "Supply Chain Management in the Global Context", *Working Paper* no. 102 Universitat zu Koln, In: <http://www.uni-koeln.de/wiso-fak/planung/download> (Ed.).
7. Feller, A., Shunk, D., Callarman, T., 2006. "Value chains versus supply chains", *BPT Trends*, March 2006, pp. 1-7.
8. Gellynck, X., Molnár, A., 2009. "Chain governance structures: The European traditional food sector". *British Food Journal* 111, 762-775.
9. Gereffi, G., Humphrey, J., Sturgeon, T., 2005. "The governance of global value chains". *Review of international political economy* 12, 78-104.
10. Haines, S., Aller-Stead, G., 2005. *Enterprise-wide change: superior results through systems thinking*. Pfeiffer & Co.
11. Hammervoll, T., 2009. "Value creation in supply chain relationships: a critique of governance value analysis". *European Journal of Marketing* 43, 630-639.
12. Kaplinsky, R., 2000. "Globalisation and unequalisation: What can be learned from value chain analysis?" *Journal of development studies* 37, 117-146.
13. Kuittinen, H., Kyläheiko, K., Sandström, J., Jantunen, A., 2009. "Cooperation governance mode: an extended transaction cost approach." *Journal of Management and Governance* 13, 303-323.
14. Mentzer, J., DeWitt, W., Keebler, J., Min, S., Nix, N., Smith, C., Zacharia, Z., 2001. "Defining supply chain management". *Journal of Business logistics* 22, 1-26.
15. Oliver, R.K., Webber, M.D., 1982. "Supply-chain management: logistics catches up with strategy". *Outlook* 5, 42-47.
16. Peterson, H.C., Wysocki, A., Harsh, S.B., 2001. "Strategic choice along the vertical coordination continuum." *International food and agri business management review* 4, 149-166.
17. Pietrobelli, C., Saliola, F., 2008. "Power relationships along the value chain: multinational firms, global buyers and performance of local suppliers". *Cambridge Journal of Economics* 32, 947-963.

18. Porter, M.E., 1998. *Competitive advantage: creating and sustaining superior performance: with a new introduction*. Free Press.
19. Quayle, M., 2006. *Developments in Purchasing and Supply Chain Management and Logistics, Purchasing and Supply Chain Management: Strategies and Realities*, Michael Quayle 2006, Idea Group Inc., pp. 1-20.
20. Schmitz, H., 2004. *Local enterprises in the global economy. Issues of governance and upgrading*. Edward Elgar Publishing.
21. Verduijn, T., 2004. *Dynamism in Supply Networks: Actor switching in a turbulent business environment*, Netherlands Research School for Transport, Infrastructure Logistics. Netherlands TRAIL Research School.
22. Vurro, C., Russo, A., Perrini, F., 2009. "Shaping Sustainable Value Chains: Network Determinants of Supply Chain Governance Models". *Journal of Business Ethics*, 1-15.
23. Whipple, J.M., Roh, J., 2010. "Agency theory and quality fade in buyer-supplier relationships". *International Journal of Logistics Management, The* 21, 338-352.
24. Yang, D., Coe, N., 2009. "The governance of global production networks and regional development: a case study of Taiwanese PC production networks". *Growth and Change* 40, 30-53.