

Innovation and Differentiation Strategies Integrating the Business Strategies and Production in Companies Networks

Francisco Santos Milreu, Pedro De Oliveira Costa Neto, Sergio Luiz Kyrillos, José De Souza, Marcelo Shibuya

▶ To cite this version:

Francisco Santos Milreu, Pedro De Oliveira Costa Neto, Sergio Luiz Kyrillos, José De Souza, Marcelo Shibuya. Innovation and Differentiation Strategies Integrating the Business Strategies and Production in Companies Networks. IFIP International Conference on Advances in Production Management Systems (APMS), Sep 2015, Tokyo, Japan. pp.45-52, 10.1007/978-3-319-22756-6_6. hal-01417397

HAL Id: hal-01417397 https://hal.science/hal-01417397v1

Submitted on 16 Dec 2016

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Innovation and differentiation strategies integrating the Business Strategies and Production in Companies Networks

Francisco José Santos Milreu^{1,2,3}, Pedro Luiz de Oliveira Costa Neto¹, Sergio Luiz Kyrillos^{1,4}, José Barrozo de Souza^{1,5}, Marcelo Shibuya¹

{Francisco José Santos Milreu, milreu@uol.com.br}

Abstract. This study presents an overview of the business and production strategies with a focus on innovation and differentiation strategies as main factors for competitiveness in companies networks (NetC), developed through a qualitative and exploratory approach with data from multiple sources in interviews with the automotive industry business managers from suppliers in Stamping, Forged and Machined segment of São Paulo, in which the participation of governance of corporation as a key element for the success of NetC was highlighted, bringing competitive advantages by acquired know-how, promoting the strengthening and consolidation among partners, developing productive sets as many focuses of action, as well as providing shorter delivery times and order fulfilment, enabling the standardisation of programs and growth of social capital among the involved companies.

Keywords: Companies networks, Business strategies, Production strategies, Inovation, Diferentiation strategies.

1 Introduction

In the way organisations are being structured in NetC, which occurs almost as paradigm shift, corporate strategies do not exhaust the dimensions of analysis, which means that managers have to resort to multiple research sources to compose an alternative that best suits the needs of their operations.

¹ Paulista University-UNIP, Graduate Program in Production Engineering, Dr. Bacelar St. 1212, São Paulo, Brazil

² São Caetano do Sul Municipal University - USCS, School Engineering, Goias Ave. 3400, São Caetano do Sul, Brazil

³ Santo André Fundation - FSA, School Engineering, Principe de Gales Ave. 821, Santo André, Brazil

⁴ São Paulo Federal Institute - IFSP, School Engineering, Pedro Vicente St. 625, São Paulo, Brazil

⁵ Espírito Santo Federal Institute of Education, Science and Technology - IFES, School Engineering, Vitória Ave. 1729, Vitória, Brazil

Productive organisations are each time more concerned with the positive or negative impacts on the strategic plan of operations, plus the reflection of the development of its activity in the social environment as a player in the network.

In business activities, especially in the manufacturing area, there is a great dependence on factors linked to the production, because the movement of goods and services should pursue objectives aligned to the needs of adding both values and sustainable economic outcomes.

On the other hand, the fall of consumer markets barriers and political changes have built different economic blocs, as globalisation, allowing the growing impact of new players from different competitive dimensions and local and global interests, stokes competition.

For companies, in order to adequate to this competitive environment, there are options for integration into production networks, considering the demands of the environment and the market.

The purpose of this paper is to identify in the Stamping, Forged and Machined segment of São Paulo innovative and strategic attributes that provide integration between business strategies and production in the studied productive networks.

2 Bibliographic Review

2.1 Governance of corporations

The theme of the governance role in corporations, considering the business strategies and production, involves several actors participating in NetC and [1] defines it as a set of delivery mechanisms of a social system and organised actions taken towards ensure security, prosperity, coherence, order and continuity of the system.

The rules for governance act systemically in corporations, in the market, in society and in government agencies, each with its established rules and seeking balance regarding its goals, aimed at interaction between the parties and the systemic interdependence as stated in [2] regarding the theoretical approaches that address the governance theme in six different areas: the agency theory, the stewardship theory, the theory of resource dependence, democratic perspective, stakeholder theory and the theory of managerial hegemony.

So, these theoretical perspectives emphasise what each of them understands as being the role for the development of governance, their responsibilities and nature of its intervention in the organisation.

This ability to expand and enhance the results through the simultaneous efforts of all members of a system at a higher level, which is the sum of the individual results of the parties, is called synergy, a basic feature of a organisation when seen by the systemic approach.

Therefore, this governance corresponds to the administration forms of this system that best meet the wishes of the majority of the people involved, generating sound management of development and thus highlighting the importance of this concept of organization that values the effects of dynamic interaction of the corporation with other market players, which represents key aspect to their competitiveness.

2.2 Competitive strategy

Regarding strategies, [3] define it as a global set of decisions and actions that place the organisation in its environment and aim the accomplishment of its long term goals. At the same time, [4] say strategy is an integrated set of commitments and actions, which aims to explore the core competencies and achieve competitive advantage.

As every strategy has a goal, prior to the adoption of measures, to which it applies and demonstrates a common understanding of the vision and strategic mission of the company, what is seen is that organisations develop and exploit core competencies in many different functional areas to implement their strategies.

[5] postulates that the competitive strategy is associated with the search of a favourable position in the competitor environment, which competitive advantages originate from the set of activities that the company performs in design, production, marketing and product logistics and support by setting what the author calls the value chain, which in turn fits into a larger stream of activities, the value system, which includes suppliers, distributors and customers.

For [5], the activities are related by links and thus open up the opportunity for obtaining a competitive advantage from the management of such links.

2.3 Operations strategy.

Regarding operations, [6] define it as a set of objectives, policies and self-imposed restrictions which together describe how the organisation has tried to manage and develop all the resources invested in operations, in order to run better (and possibly redefine) their mission, guiding in the school of strategic planning, through a formal process and from top to bottom that covers the strategic, tactical and operational levels.

From the perspective of strategic planning, operations strategy is a functional strategy and therefore should promote support to the competitive strategy, given the fact that the elements that make up the production system have to be designed to achieve certain ends and perform certain tasks. So, different competitive strategies may require different configurations of the production system, which for [7], the industrial production systems represent the transformation of inputs into outputs, with inherent value.

Thus, it is necessary to systemically study the internal processes of manufacturing, so that we can decisively prevent the incidence of failures, encourage improvements in the efficiency of operations and better use of the inputs.

2.3.1 Strategic planning and production control

To plan, to control and to produce mean to unite the productive organisation in order to obtain an integrated work in all the chain, structured to simplify the activity and to eliminate time on unnecessary activities. As the manufacturing systems to [8] represent the set of interrelated elements (human, physical and management procedures) that are designed to generate final products, whose commercial value exceeds the total costs incurred to get them, the PPC system needs to properly inform the current situation of the availability of resources and make decisions about what, when, how and with which resources to work in order to produce goods and services.

Planning involves design and formalisation of future activities and aspirations, being essential to have controls and the possible adoption of correction strategies to the materialisation and confirmation of the plans.

2.4 Competitiveness

Competitiveness is the characteristic or ability of an organisation to fulfil its purposes more successfully than other competing organisations, which is based on the ability to meet the needs and expectations of customers or citizens that they serve according to their specific mission, for which the company has been created.

[5] states that companies achieve of competitive advantage through innovation initiatives, that addresses it in the broadest sense, encompassing new technologies and new ways of doing things and perceive a new basis for competition or find better ways to compete in an old fashion manner.

2.5 Innovation and business networks

Innovation comes from knowledge and, according [9], it represents a process of creating new possibilities through the combination of different perceptions that results in the search for technologies, markets or actions of competition. Therefore, innovation, integrated in business networks, according to [10] offers a favourable environment for strategic intelligence activities, generation of new knowledge, internal and external information related to the existing experience and skills in the organisation, what contributes to innovation processes environments.

To [5], innovation is manifested in new product designs, new production processes, in new marketing approaches or new training methods. It always requires investments in skill and knowledge, as well as physical assets and reputation of brands.

Considering this theoretical framework and to support this article, the model showed in Fig. 1 and developed by [11] links the business strategy, production and PPC in companies networks. This model has evolved into the profile expressed through the governance of corporations, involving business strategies and operations strategies, and arises from the business network with business strategies directing the actions in network operations.

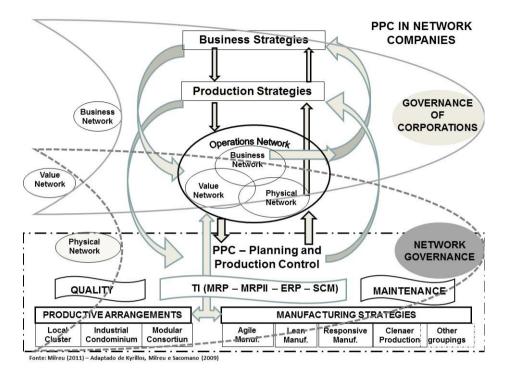


Fig. 1. PPC in NetC. Source: author based on conceptual map [11]

3 Methodology

According to [12], inductive process of analysis can be used in case studies to verify the trend of relations between two or more phenomena, with instruments and ways of data collection in multiple cases and inclusion of academic literature.

In this study, as the goal was in the search of affirmatives, it was considered the qualitative and exploratory approach, gathering data from multiple sources through a research with 47 managers of the automotive chain companies that deal with suppliers related to Stamping, Forged and Machined segment in São Paulo, involving various verifications, detailed in [11], structured in the model developed in Fig. 1 and contemplating innovation and differentiation strategies integrating business and production strategies in companies networks, providing meaningful results for the players.

4 Summary of observations in the studied cases

Current models cannot provide answers to complex agreements between companies that are organised in networks - which have established deep functional relationships - to the demands promoted by an organised society and the changes that have occurred on governance in recent times.

According to [13], making intra and intercompanies governances is an ability to govern relations including class interests and ways of understanding them, which interfere in hierarchy and control aspects, contracts and monitoring, motivation based on trust and loyalty, reflecting on intended targets and conditions of alliances, which are based on dependent cooperation. The process of governance in NetC has the ability to guide the course of a business unit maintaining interfaces with the stakeholders involved.

In the pursuit of success, aiming the competitiveness of organisations, competent management, coupled with the high degree of trust and commitment, lead to the achievement of goals.

These groups of suppliers become strategic in the development of this network of companies, meeting the demands with quality, production capacity, supply costs and capacity for innovation, exchanging information and updating their production processes seeking to innovate in processes and develop new opportunities of products and/or services.

It must be maintained a coordination and control mechanisms to implement rapid changes in product design, in its mix, in the fast introduction of new versions of existing and/or completely new products, offering opportunities to clients as a way to differentiate themselves in the market, favouring innovation, observed by 72.3% the of respondents, indicating a moment of targeted intervention to maintain and/or increase the aggregate efficiency of the network.

Also, the capacity of human resources involved, training and joint professionalization may add value in sharing skills and knowledge of common processes to establish an even greater trust among the network partners, which were confirmed by 89.4% of the respondents, indicating that working together has provided improvements in the production processes and has encouraged them to keep going with the adopted model.

Considering innovative and low cost strategies, a traditional company may find it hard to practice both simultaneously, resulting in an option of strategy. Then, NetC can promote this competitive advantage, given that in its participation, the company can develop productive sets with different focuses of action, answering to both strategies, which were identified by 93.6% of the respondents, favouring specialisation, allowing a reduction on the aggregated expenditure of the operation, reducing the complexity of the tasks and the volume of the stocks involved, implying directly in decreasing the volume of required investment, the costs involved and the final price.

Thus, considering the proposed discussion and the research summary performed, focusing on innovation and differentiation strategies factors, it is shown that in this companies network, the activities have brought improvements in the processes, favouring differentiation, obtaining competitive advantages, as well as strengthening and consolidating relationships on the network through the governance of corporations, an effective tool for network management.

5 Conclusions and recommendations

A thoughtful look to the satisfaction of the customers served by the NetC also deserves attention, focusing on shorter lead times and order fulfillment on the dates and amounts requested, innovating in the relationship.

Learning and the dissemination of the techniques used by the network participants, combining their skills and using the acquired know-how, can provide a competitive advantage for the NetC in addition to the standardisation of programs combining quality, sharing internal standards and certifications to meet international standards, differing themselves in their business.

Another important factor that can be considered is the economic gain to the accumulation of social capital among the companies involved, because the bonds relating to alliances and trust promotes the strengthening and consolidation of activities among the partners, thereby inhibiting opportunistic actions and facilitating development of innovation processes.

Finally, several proactive triggered actions, considering the proposed arguments, show the competitive priorities and innovation and differentiation factors.

Given the dynamic environment in which companies operate, the movement of goods and services pursues the objectives aligned to the needs of adding both value and economic sustainable outcomes with the use of competitive advantage by integrating business strategies in the context of corporations' governance with the operations strategies. In this sense, companies involved in the network must necessarily rethink their corporate strategies and use the strategic attribute sets for its network integration, innovation and thus they will be competitively differentiated in the market.

Some issues need to be part of this integrated environment prospects of NetC, thus demonstrating the effective participation of governance, and so, one of the contributions of this paper focuses on the possibility and feasibility of studying the competitive advantages when opting for functional strategies to set answers to the above questions, confronting standards required with reality, with the scenarios that can be built considering, obviously, the feedback from the market, reducing costs, diminishing response time for production, facilities availability, workforce training, systems and technology availability, among many other determining factors for companies that are part of the networking environment.

Some issues must be part of the prospection in this integrated environment of companies networks, demonstrating the effective participation of governance. Thus, one of the contributions of this article focuses on the possibility and feasibility of studying the competitive advantages when opting for functional strategies to indicate answers to the questions above, comparing requested standards in terms of the set reality with the scenarios that can be built considering, obviously, market feedback, cutting costs, reducing response time for production, available facilities, workforce training, available systems and technology among many other determining factors for companies inserted in the networking environment.

References

- Milani, C. R. S. Governança global e meio ambiente: como compatibilizar economia, política e ecologia. In: Fundação Konrad-Adenauer Stiftung. Pesquisas: Governança Global Reorganização da política em todos os níveis de ação. São Paulo, nº 16, 1999.
- Cornforth, C. The governance of public and non-profit organisations. What do boards do? Routledge studies in the management of voluntary and non-profit organizations. London: 2003
- 3. Slack, N.; Chambers, S.; Johnston, R. Administração da produção. São Paulo: Atlas, 2002.
- 4. Hitt, M. A.; Ireland, R. D.; Hoskisson, R. E. Administração estratégica. São Paulo: Pioneira Thomson Learning, 2003.
- Porter, M. E. On competition: estratégias competitivas essenciais. Rio de Janeiro: Campus, 1999.
- 6. Hayes, R. H.; Pisano, G. P.; Upton, D. M.; Wheelwright, S. C. Operations, strategy and technology, pursuing the competitive edge. New York: John Willey & Sons, 2004.
- Sipper, D.; Bulfin Jr.; R. L. Production: Planning, Control and Integration. New York: Mc Graw Hill, 1997.
- 8. Maccarthy, B. L.; Fernandes, F. C. F. A multi-dimensional classification of production systems for the design and selection of production planning and control systems. Production Planning & Control, v. 11, n. 5, p.
- Tidd, J.; Bessant, J.; Pavitt, K. Gestão da Inovação. Tradução: Elizamari Rodrigues Becker et al. 3ª.Edição, Porto Alegre: Bookman, 2008.
- Faggion, G.A.; Balestrin, A.; Weyh, C. Geração de Conhecimento e Inteligência Estratégica no Universo das Redes Interorganizacionais. Revista Inteligência Empresarial, 2002, número 12, Julho.
- 11. Milreu, F. J. S. Estratégias, fatores e atributos para a estruturação do Planejamento e Controle da Produção em Redes de Empresas. São Paulo, 2011. Tese de Doutorado Engenharia de Produção Universidade Paulista. Orientador Professor José Benedito Sacomano.
- 12. Yin, R. K. Estudo de caso, planejamento e métodos. São Paulo: Bookmam, 2001.
- 13. Noteboom, B. Inter-firm alliances Analysis and Design. Routledge, London, 1999.