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ABSTRACT MEASURING AND MANAGING PROJECTS

in extended enterprise:

A VALUE CREATION FOCUS based on intangible assets

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✓ ABSTRACT

Some suppliers are key business resources. Their management requires more sophisticated tools than simply measuring cost savings. These tools must be integrated into the overall strategy of growth and development of competitive advantages. This is especially the case with project-based-mode complex interactions. This article uses the experience of intangible assets to propose an approach to measure the performance of key suppliers geared to maximize their value-creation potential.

INTRODUCTION

Firms which rely on technology and innovation to compete are increasingly aware of the importance of suppliers in providing that innovation. In their publications, some companies mention their suppliers as strategic levers for competitiveness in terms of costs, quality, innovation and shared value creation, or show their concern for their suppliers' financial well-being. How can they measure the relationship with those suppliers in order to benefit from their expertise and contribute to the firm's ability to achieve its strategic goals?

The objective of companies is to develop and strengthen sustainable, competitive advantages to obtain an economic rent. This rent is the result of customer-perceived value by the firm's clients which is greater than the costs of the production factors. It can be very different from the acquisition costs of the means of production (*Bowman and Ambrosini 2000*). Usage value is issued from the fulfillment of clients' expectations, an external perspective, while shareholder value is an internal perspective (*Martinez-Hernandez 2003*). The price paid to suppliers is only one component of the internal value. How can suppliers help to create more value for the final users, strengthening the competitive position of the firm and, therefore, create value?

Managers trained with Michael Porter's models focused on extracting existing value from suppliers by obtaining a superior relative bargaining power (*Gulati and Sytch 2007*). This was encouraged by the teaching of purchasing and negotiation that begins with the illustration of the leverage

effect of a lower acquisition prices on profit and return on investment. They primarily consider the exchange value with the supplier even if the concept of use value becomes important with regard to the objectives of the purchase function (*"Les Priorités des Services Achat en 2013" 2013*).

All the suppliers do not have the same role within the firm in terms of strategic positioning, or balance of power. Performance management tools need to be adapted to effectively manage the relation with suppliers who have different profiles (*Gelderman and Van Weele 2003*).

In this article we will build a measurement methodology adapted to handle the complex relationships between companies and their key suppliers: those who contribute to strengthening the firm's competitive position. Those relations often take the form of projects rather than simple transactions. They link the cooperation between partners within the extended enterprise, defined as a system composed of a client and its suppliers who strongly collaborate in order to maximize the benefits of each partner (*Childe 1998*). These suppliers should not be managed through arm's length transactions, but within alliances developed to optimize different dimensions ranging from transaction costs (*Geyskens, Steenkamp, and Kumar 2006*) to value creation (*Bititci et al. 2004*). The aerospace and automotive industries, among others, often exhibit interdependence in the design and implementation of projects. These suppliers are often referred to as 'partners'; both parties benefit from the cooperation by increasing the value for their shareholders while bringing value

to end customers. The projects with this type of suppliers are the topic of this discussion.

1. Methodology

Performance measurement is a challenge facing other functions, such as Human Resources, which have moved beyond the simple measurement of payroll as a measure of effectiveness by integrating new scales of analysis in their measurement tools to build career plans that ensure that the future needs of the business are met and to keep key personnel motivated. In general, measuring performance beyond what is recorded by accounting is a problem researchers are faced with in the field of intangible assets. Better measurement instruments allow to formulate and evaluate strategies based on intangibles (*Andriessen 2004; Marr, Gray, and Neely 2003*). The implementation of intangible asset measurement is associated with superior performance (*Ittner 2008*). These measurement systems rely on questionnaires, for example to measure employee satisfaction and motivation, or internal collaboration, often incorporated into composite measures such as dashboards that incorporate financial as well as non-financial results.

Can this research on the measurement of internal intangible assets be extended to supplier relationships?

Is it possible to develop a measurement and management tool aimed – not at the selection of a supplier within panel developed after a strategic source-

ing initiative – but rather geared to improving the effectiveness of the extended enterprise to achieve common goals?

First, this article validates the applicability of the intangible assets reference for key suppliers. It then identifies existing relevant supplier measurement tools to develop a discussion about a measurement approach better suited to managing suppliers as intangible resources for the firm. Finally, it proposes an innovative measurement approach for the extended enterprise.

1.1 Suppliers as intangible capital for the firm

Intangible assets, or simply “Intangibles”, consist of intellectual resources, know-how, work methods, and cultures, which are used to create value. Traditionally, it includes innovation, human resources, and organizational practices. This intangible capital contributes to the creation of value without appearing in financial and accounting statements. It is a claim on future earnings that cannot be recognized in the balance sheet of the firm, which cannot be easily exchanged, whose property is hard to defend, and which offers the potential for an increase in return on investment as this intangible is exploited (*Lev 2001*).

Do key suppliers, partners of the firm, meet the criteria? The use of the intangible framework for the management of suppliers may seem surprising at first, but suppliers share intangible capital with several elements. Several studies have briefly observed that many sectors, starting with the automobile industry, associate suppliers to the design phase in order to benefit from a contribution of intangible resources (*Calvi, 2000*). For the Organization for Cooperation and Economic Development, these include: resources and human capacity, structural means and ‘relational’ capital, including supplier networks (“*Intellectual assets and value creation*”, 2008). These supplier partners have traits that characterize the intangibles, as we will be discussed.

1.1.1. Claim on a future benefit which does not appear on the balance sheet

Suppliers, on average, represent more than 50% of the added value of the firm and are, therefore, the most important resource from the budgetary point of view, which needs to be deployed as part of a firm’s strategy implementation. Examples of special relationships exist and have been documented. Numerous studies have made a link between supplier contribution and the value

created by the firm, such as Frito-Lay and Repower (*Philippart, Verstraete, and Wynen 2005*) and Toyota and Honda (*Henke Jr. and Chun Zhang 2010*). They show that collaboration between suppliers and customers provides exclusive benefits to the firm and contributes to strengthening its competitive position. Suppliers can thus become contributors to the future benefits of the firm.

What is the mechanism used to obtain this future income? The intense pressure economic globalization has imposed on businesses has pushed them to differentiate their products and services through innovation, to which key suppliers contribute. An innovation or collaboration offered by a supplier to all its customers in a similar manner will create less value for them than if it is available on a limited or exclusive basis. Value creation can also occur in project mode when partners work together to create value beyond what each one can accomplish alone, by integrating their competences.

The relationship between a supplier and its client firm can therefore contribute to value creation, although this potential is not recognized in the companies’ financial statements. Suppliers meet the first part of Lev’s definition of intangible assets.

1.1.2. A resource that is difficult to exchange and control

Lev highlighted the difficulty of controlling intangibles, especially those pertaining to knowledge. The property of a physical resource is guaranteed by a legal framework. Ownership of a trademark is protected by copyright mechanisms and internal ownership of innovation by patents. However, many components of the quality of a relationship between a firm and its suppliers cannot be secured through contractual approaches.

Suppliers who are identified as partners make specific resources available to their client. It is the complexity of these interactions that makes these relationships specific: the experience of working together (*Gulati, Lavie, and Madhavan 2011*) and interdependencies (*Gulati and Sytch 2007*) are positively correlated to value creation. Combined with the rationalization of the supplier base, companies are increasingly dependent on key suppliers to continue providing competitive subsystems and subassemblies which incorporate advanced product and process technology. Suppliers in turn rely on their customers for innovation information (*Reed and Walsh 2002*). The collaborative relationship, strong interactions between teams, and common work experiences can be extended

on a long-term basis outside the context in which it was developed. On the other hand, a supplier’s potential value is not automatically transferred for the benefit of its client. In order for buyers to make this transfer, they must moderate the pressure they put on their suppliers by considering only the financial objectives of the purchasing firm (*Peters 2000; Henke Jr. and Chun Zhang 2010*). Confidence (*Barney & Hansen, 1994*), working methods or team spirit are important factors to succeed in a collaborative effort. This relational capital (*Kale, Dyer, and Singh 2002*) is, therefore, essential to protect owners within a dyad.

Obviously, some strategic decisions can increase the control over a supplier’s expertise and protect this source of knowledge. The acquisition of a supplier may be an option, but the necessary capital may not be available or may need to be allocated to more critical objectives. The acquisition may also lack industrial logic, when the competence sought is only one of many of the target firm. Finally, some studies indicate that the success rate of acquisitions is less than 50% (*Marks and Mirvis 2010*). If acquisition is not possible, the firm must realize that suppliers can choose to engage in a client’s extended enterprise after comparing their options with other clients. Since they also have a choice to participate in a partnership, they can also refuse. The buying firm must handle the relationships with key suppliers in order to sustain and isolate them from its competitors.

We have shown that the control of the supplier as a resource is difficult and cannot be achieved through simple agreements. Key suppliers may, therefore, be considered as intangible assets since they are sources of future profits and the relationship cannot be protected specifically through a contractual approach.

1.2 A Constructivist approach

To broaden the considerations with regard to current practices and to propose an approach better suited to manage a supplier relationship with a value creation objective, this article uses the construction management approach introduced in accounting research (*Kasanen, Lukka, and Siitonen 1993*). They had already observed that few articles in accounting journals had an approach oriented to developing solutions adapted to the needs of the business world and wanted to develop propositions adapted to the practical needs of firms.

The constructivist approach is a research procedure that produces solutions grounded in theory, but adapted to provide answers to the needs of companies. This approach is at the origin of the “Balanced Score Card” (*Kaplan 1994; Kaplan and Norton 1996*). The constructive approach is relevant because suppliers can be considered as intangible assets and that the objectives of this paper are similar to those that led to the construction of the BSC.

2. Structuring a Measurement Approach

Performance measurement tools for purchases must be developed to help a firm’s strategic management and measure progress (*Pohl and Förstl 2011*), and their contribution to the value creation and the development of sustainable competitive advantages. Major trends in supplier performance measurement will be reviewed in order to identify elements that can be used to develop a tool suitable for measuring the performance of a relationship whose objective is value creation. Since our approach was structured on suppliers as intangible assets of the firm, the analysis will be based on the measurement of the two characteristics of intangibles: the claim on future earnings and the need to secure control over those assets in the long term.

2.1 Future benefit : Measuring the potential for value creation

Supplier performance measurement and management (*or: Measuring the performance of supplier management*) begins with cost reduction, documented since the first articles appeared on the subject (*Monczka and Trecha 1988*). The simplest approach is to focus on a narrow mesh, the historical evolution of the price of goods or services purchased. This approach quickly showed its limitations as soon as a longer, strategic horizon was taken into account and that the consequences of the decision to purchase exceed the instant use of identical products. The total cost of ownership, or TCO, improves the evaluation from the historical evolution of the acquisition price (*Ellram 1993*). TCO integrates and evaluates all budget items affected by the decision, for example acquisition costs and installation, non-recurring and operating costs, impact on yield, present and future, taking into account labor as well as consumables

and end-of-life costs. TCO is an element that aims to identify future earnings, but, as with the evolution of price on a historical basis, TCO remains mainly as a cost-based accounting approach and not as the creation of value.

Why are those approaches insufficient? Cost reduction is associated with delivering value in the common Purchasing vocabulary. But it is effective at delivering value only for those firms who can successfully implement a differentiation strategy that enables them to maintain their sale prices. If all stakeholders in the same sector reduce their costs by applying similar operational approaches, internal productivity or the pressure on suppliers, lower costs will generally translate into a reduction of the selling price. Their clients' buyers apply the same methods and recover, to their benefit, productivity or purchase gains, up to the final customer. In today's hypercompetitive environment, markets tend towards perfect competition where no economic rents are available (D'Aveni, Canger, and Doyle 1995).

Moreover, the external value of a collaborative relationship is delivered several months or several years after the collaboration with a supplier begins, when goods or services are successfully marketed. As it is a future benefit that is expected, the accounting approach cannot, therefore, suffice to recognize all the benefits of partnerships or guide the management of projects in which suppliers contribute with their unique skills. The transactional financial results cannot measure the contribution to future enhancements of the firm's competitive position.

The accounting approach must be complemented by measuring the value creation precursors and replacing the future value measurement by measuring the levers of this value creation. This approach can be implemented using tools that contribute to identifying the solutions that will most likely give the customer the most creative value solution. The "Linear Performance Pricing", which has been used in the automotive industry to facilitate projects related to the optimization of specifications and vendor selection (Newman and Krehbiel 2007) suggested to link the price to a value proxy, usually the technical element that drives usefulness for the final user. This tool enables focusing on the collaborative work by bringing more clarity to the source of value. It remains confined to a technical optimization, but paves the way for using a value proxy to evaluate the performance in the supplier relationship.

2.2 An asset difficult to control: Measuring the relationship

A contractual framework is not sufficient to protect the resource provided by the collaboration between client and supplier to contribute to value creation. It is necessary to strengthen and secure the relationship. Therefore, the structuring elements of the collaborative relationship essential to defend privileged access to the skills of service providers need to be assessed. As with all efforts aimed at creating benefits, it is not enough that the relationship with the supplier be good. It must be better than the one between the supplier and the competing corporate networks.

The quality of the relationship between the parties is not limited to confidence, but is also established through socialization mechanisms that are positively correlated to the firm's performance (Cousins, Lawson, and Squire 2008). The first efforts to assess the relationship date back to the 1990s, with the Relationship Assessment Program or RAP (Lamming, Cousins, and Notman 1996). This model developed the relationship concept as an independent entity that unites two organizations to mutually create beneficiary streams. It allowed both sides to jointly evaluate the relationship to improve its performance and its potential development of value/reduction of inefficiencies. Supplier and client dimensions were parallel and included external factors such as the competitive environment, and internal factors such as the availability of partners' expertise. The participants expressed their perception of the important elements that affect or facilitate the relationship. An evolution of RAP, the SCRIA is used in the aerospace industry in Great Britain. Today, it has evolved to applications driven by private entities (Johnsen, Johnsen, and Lamming 2008) and is no longer a valid standard used by research and applicable by all. Recently, the need to better measure the presence of projects aimed at contributing to the improvement of proactivity and the decrease of risk has been identified in the project "PRAXIS" (Le Dain, Calvi, and Cheriti 2011).

The "Working Relation Index" or WRI measures the quality of the relationship between suppliers and their clients by means of a questionnaire focused on five dimensions; relationship, buyer communication, buyer help, buyer hindrance and supplier profit opportunity. This is probably the best-known measure because since 2001 its results for the North American automotive industry have been made public every year ("Annual Automotive Industry TM Study /

Planning Perspectives Inc." 2013). The improvement of this index has been linked to the reduction of costs (Henke, Sengun, and Chun 2009), the improvement of quality and innovation, and optimization of inventories (Milas 2005). The methodology, the questionnaires, the approach to administration and analysis for the WRI are confidential, the property of Planning Perspectives Inc. and therefore not available as a tool broadly used by practitioners.

Another approach to measure the relationship is assessing the supplier's innovation and skills contribution. Those are frequently mentioned as constituent elements of the intangible assets. The analysis of the potential for value creation by the supplier's skills is discussed in terms of efficiency, capacity for innovation and network capacity by highlighting the difference between efficiency, which is a short-term indicator and the production of value through innovation in the medium- and long-term (Möller and Törrönen 2003). This highlights the importance of the range of the supplier's value creation skills. One shortcoming is that it only takes into account supplier evaluation and not the dyad.

Innovation, the suppliers' intellectual input, is not limited to technical performance but also to their contribution in terms of innovation process, and joint development alternatives (Le Dain, Calvi, and Cheriti, 2011). The upstream involvement of suppliers in research projects is another indicator of the quality of the supplier-buyer relationship (Johnsen 2009). The "Early Supplier Involvement" index or ESI (Bidault, Despres, and Butler 1998) was built using responses to three questions about the choice of hiring proactive suppliers with regard to process development or innovation. However, this study only used 24 observations and did not show a correlation between the ESI index and business performance of the companies studied.

2.3 The composite measurement approaches

The need to better measure intangibles has led to developing composite measures like the Balanced Scorecard (BSC) or the 'Intangible Asset Monitor' (Sveiby 1997), which seek to evaluate intangibles using proxies. Similarly, CAPS Research proposed adapting the Balanced Scorecard / BSC to the procurement function, based on Kaplan's study (Carter, Monczka, and Mosconi 2005). However, this BSC does not take into account the above mentioned dimension: the quality of the supplier relationship. Moreover, even if the authors mention "Innovation programs" as a

measurement theme, these examples do not have the level of formality of the ESI index. Finally, it did not measure the potential of long term value creation through the construction of competitive advantages.

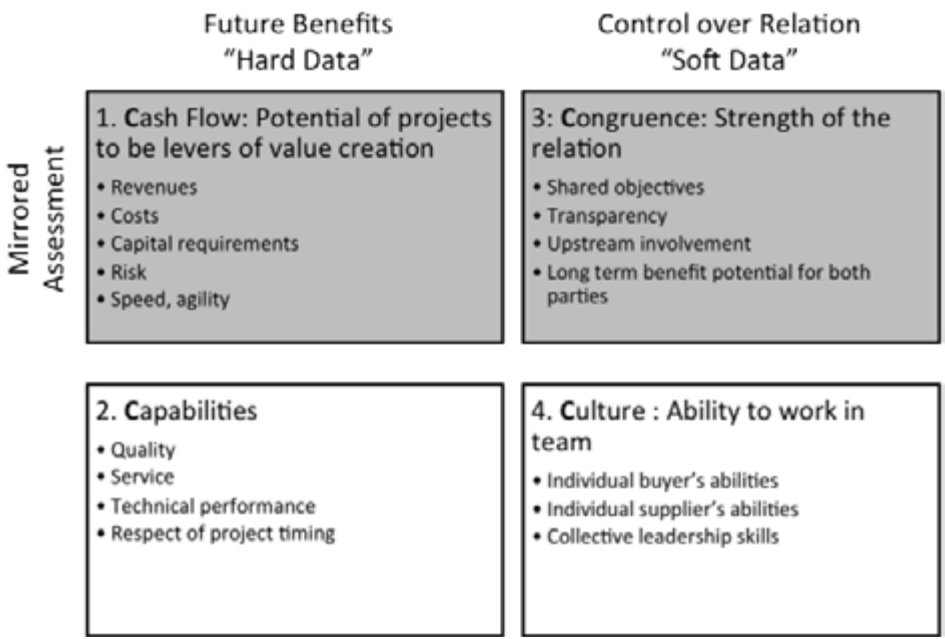
The supplier resources or knowledge must be properly applied to value creation levers in order to create this value. In a relatively simple retailing environment, The "Collaboration Index" (Sima-tupang & Sridharan, 2005) applied a composite approach with cost, risks and benefit alignments, as well as two relational elements: information sharing and synchronization of decisions. These elements were correlated with a value creation proxy: the measurement of logistics performance and client satisfaction rate. The value proxy was simply the capacity of the retailer to achieve a better service level. The authors intended to correlate their index to operational performance rather than to strategic performance. Also this study did not consider an increased supplier involvement but the benefits of better sharing information such as point of sales data.

Another composite approach is the AHP (Analytic Hierarchy Process). It is developed to assist the supplier selection process on the basis of multiple factors when price is not the sole determinant (Bhutta and Huq 2002). The vendors involved in collaborative projects were probably selected using an approach of this type, but the AHP is not suitable for collaboration management beyond choosing the supplier. The DEA (Data Envelopment Analysis) is a continuation of the research efforts on AHP. It is clearly positioned as a tool for supplier selection (Ramanathan 2007) and not as a tool to evaluate the effectiveness of an ongoing relation.

These composite approaches pave the way for a value assessment tool without, however, satisfying the definition of value creation, nor to measure the extent to which those suppliers contribute to the strategic agenda of their client. They do not take into account the supplier's perspective, thus the motivation of the preferred supplier to transfer its competence to the client within the extended enterprise.

3. Building an integrative measurement approach

In order to measure and manage relationships with strategic suppliers of the firm, a tool that integrates its potential for value creation and the



protection of this potential still has to be developed. This tool must be rooted in research, but should propose a practical solution. Each of the tools mentioned above addresses the components of an ideal measurement system, but a more structured approach based on these different studies must be developed and then integrated into a dashboard focused on managing the supplier relationship as an intangible asset. Again, the two criteria characterizing an intangible asset will support our construction of this measurement system: the potential for future benefits and the difficulty to control the resource.

3.1 Cash flows, more than costs

First, we want to measure the potential for future benefits. The approach most commonly taught to assess a firm’s value is the “discounted cash flows” method. While this method has imperfections, it highlights the elements of value. Revenues less costs and investments represent cash flows. These flows are weighted according to their risk, the weighted average cost of capital, to discount future cash flow and evaluate a present value. To create value, via the supplier relationship, as in any other business, the relationship or the project should contribute to increase the cash flows (*revenues - costs - investment*), in an agile and proactive way, and contribute to reducing the risk in the project or the final product, not for a single year but as a stream of results for the lifetime of the output. The first element of our index assesses the potential impact for both partners engaged in the key projects, not only in terms

of final user satisfaction or competitive position (*revenues*) but also in terms of costs, reduction of capital requirements, and risk reduction, to cover all the levers of value creation.

3.2 Capabilities to deliver

Future benefits are also conditioned by the quality of the output. It is the most traditional element of project measurement. Therefore, one component of our measurement system must be the traditional cost, quality, performance and time for delivery tracking.

Those two dimensions, discounted Cash Flow and Capabilities are the “hard” dimensions of our index. The data are either technical or financial, although we have significantly broadened the scope of our financial data evaluation. They are geared to measuring value creation.

3.3 Congruence of Interests

Now, we can focus our attention on assessing the durability of the resource represented by the collaborative work. The effectiveness of the protection of knowledge created or provided by the supplier should be based on approaches used to protect knowledge developed internally. The three key elements are: the alignment of benefits, contracting, and postponement for realizing the benefits (*Liebeskind 1996*). Contracting is present in any relationship. Therefore, the measurement tool should take into account the other two elements: alignment, postponement through the measure of the quality of the relationship between the parties, evaluating trust and transparency.

As for human resources management, this can be done by conducting anonymous surveys of the state of mind of the participants. They will measure the perception of the relation, the effectiveness of information exchange, the commonality of objectives, the early engagement of suppliers and the long term perspectives for both parties. The assessment can be performed with a historical perspective, an improvement of the factors, or on a competitive basis, the status as a preferred supplier or client in a competitive scenario.

3.4 Collaborative Culture

One can expect that the team members are selected based on their technical capabilities. Nevertheless, those are not the key drivers of success. The team members need to exhibit shared leadership skills (*Appelbaum and Gonzalo 2007*). In cross functional teams, if the internal dynamics of the team does not support collaborative interactions, the full potential of the team is not realized (*Daspit et al. 2013*). Increasing trust and transparency can only happen if there is a conducive culture (*Sinha, Whitman, and Malzahn 2004*). The challenges for cross functional teams from the same organization are even more acute for teams composed of members from different organizations. Thus, cultural elements related to the propensity to collaborate are the last elements of our composite index. They can be assessed again through questionnaires and simulation to test the participants’ ability to understand the point of view of another team member, to listen, to develop creative solutions based on multiple inputs, to convince and create consensus around identified solutions, and finally to push through the implementation of those solutions.

4. Conclusion

This article develops a measurement approach with the primary objective to move beyond the tactical, operational vision of performance to focus on the creation and protection of competitive advantages, and shareholder value. We have developed an index structured around two groups of measures: two “hard” measurement families, discounted cash flow and capabilities, to evaluate the potential for value creation, and two “soft” measurement families, congruence of interest and collaborative culture, to evaluate the strength of the relationship and the work done by the client to solidify it, hence making the resources availa-

ble to the key suppliers difficult to imitate by the competitors.

Because the possibility for shared benefits and a shared vision of the competitive implications are essential components of an extended enterprise, the measurement of the outcome and the congruence must be performed for the two points of view: the supplier and the client firm. Therefore, a mirror approach with questions measuring identical observations from the two points of views are essential for the “discounter cash flow” and “congruence” dimensions of this measurement tool, an approach already explored by the RAP.

The development of the “soft” elements of our index must be carried out in a climate of trust and confidentiality. This is particularly important if a firm is at a turning point in its strategic supplier relationship management and must overcome a historic liability, when it embarks on a journey toward a better extended enterprise while some cultural mistrust still exists between partners. The nature of the “soft” measures can make difficult to gather accurate data if one of the parties is worried about the other party’s reaction to a true answer. There may be a tendency for political correctness or diplomatic answers rather than the exact opinion of the participants. A simple way to improve the quality of the data gathered is to ask a neutral party to collect the information, develop the questionnaires and conduct the analyses. This is the approach taken for instance in the UK aerospace industry where the SCRIA and SC21 assessments are conducted by independent firms. Research teams in universities can play an active role in that area, bringing an analytical rigor and an independency that will add value to the data gathered.

To validate our constructive approach, future research should be based on implementation cases. By developing the practical toolbox and publishing the results, it can lead to a precious source of comparable data between firms in the same ecosystem.

It will be particularly interesting to further explore the conditions of success of cross organization teams, and enrich the corpus of research on cross functional teams.

The strategic performance of extended enterprises is an important research field because it offers ways to avoid the trap of hyper competitiveness that has been reducing the value creation opportunities of firms in higher cost countries.



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- Andriessen, Daniel. 2004.** “IC Valuation and Measurement: Classifying the State of the Art.” *Journal of Intellectual Capital* 5 (2) (June 1): 230–242..
- “Annual Automotive Industry™ Study | Planning Perspectives Inc.” 2013. Accessed November 8. <http://www.ppi1.com/services/annual-automotive-industry-study/>.
- Appelbaum, Steven H., and Frederic Gonzalo. 2007.** “Effectiveness and Dynamics of Cross-Functional Teams: A Case Study of Northerntranspo Ltd.” *Journal of American Academy of Business, Cambridge* 10 (2) (March): 36–44.
- Barney, Jay B., and Hansen, Mark H. 1994.** “Trustworthiness as a Source of Competitive Advantage.” *Strategic Management Journal*.
- Bhutta, Khurram S., and Faizul Huq. 2002.** “Supplier Selection Problem: A Comparison of the Total Cost of Ownership and Analytic Hierarchy Process Approaches.” *Supply Chain Management: An International Journal* 7 (3) (August 1): 126–135
- Bidault, Francis, Charles Despres, and Christina Butler. 1998.** “The Drivers of Cooperation between Buyers and Suppliers for Product Innovation.” *Research Policy* 26 (7–8) (April): 719–732.
- Bititci, Umit S., Veronica Martinez, Pavel Albores, and Joniarto Parung. 2004.** “Creating and Managing Value in Collaborative Networks.” *International Journal of Physical Distribution & Logistics Management* 34 (3/4) (March 1): 251–268
- Bowman, Cliff, and Veronique Ambrosini. 2000.** “Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy.” *British Journal of Management* 11 (1) (March): 1–15.
- Calvi, Richard. 2000.** “Le rôle des services achats dans le développement des produits nouveaux: une approche organisationnelle.” *Revue Finance, Contrôle, Stratégie* 3 (2): 31–55.
- Carter, Phillip L., Robert M. Monczka, and Trish Mosconi. 2005.** Strategic Performance Measurement for Purchasing and Supply. Center for Strategic Supply Research.

- Childe, S. J. 1998.** “The Extended Concept of Co-Operation.” *Production Planning & Control* 9 (4): 320–327.
- Cousins, Paul D., Benn Lawson, and Brian Squire. 2008.** “Performance Measurement in Strategic Buyer-Supplier Relationships: The Mediating Role of Socialization Mechanisms.” *International Journal of Operations & Production Management* 28 (3) (February 22): 238–258.
- D’Aveni, Richard A., Jonathan M. Canger, and Joseph J. Doyle. 1995.** “Coping with Hypercompetition: Utilizing the New 7S’s Framework [and Executive Commentary].” *The Academy of Management Executive* (1993–2005) 9 (3): 45–60.
- Daspit, Josh, C. Justice Tillman, Nancy G. Boyd, and Victoria Mckee. 2013.** “Cross-Functional Team Effectiveness: An Examination of Internal Team Environment, Shared Leadership, and Cohesion Influences.” *Team Performance Management* 19 (1/2) (March 1): 34–56..
- Ellram, Lisa. 1993.** “Total Cost of Ownership: Elements and Implementation.” *International Journal of Purchasing & Materials Management* 29 (4): 2–11.
- Gelderman, Cees J., and Arjan J. Van Weele. 2003.** “Handling Measurement Issues and Strategic Directions in Kraljic’s Purchasing Portfolio Model.” *Journal of Purchasing and Supply Management* 9 (5–6) (September): 207–216.
- Geyskens, Inge, Jan-Benedict E. M. Steenkamp, and Nirmalya Kumar. 2006.** “Make, Buy, or Ally: A Transaction Cost Theory Meta-Analysis.” *Academy of Management Journal* 49 (3) (June 1): 519–543.
- Gulati, Ranjay, Dovev Lavie, and Ravindranath (Ravi) Madhavan. 2011.** “How Do Networks Matter? The Performance Effects of Interorganizational Networks.” *Research in Organizational Behavior* 31 (January): 207–224. doi:10.1016/j.riob.2011.09.005.
- Gulati, Ranjay, and Maxim Sytch. 2007.** “Dependence Asymmetry and Joint Dependence in Interorganizational Relationships: Effects of

Embeddedness on a Manufacturer’s Performance in Procurement Relationships.” *Administrative Science Quarterly*.

- Henke, John, Yenyurt Sengun, and Zhang Chun. 2009.** “Supplier Price Concessions: A Longitudinal Empirical Study.” *Marketing Letters*.
- Henke Jr., John W., and Chun Zhang. 2010.** “Increasing Supplier-Driven Innovation.” *MIT Sloan Management Review* 51 (2): 41–46.
- Ittner, C. 2008.** “Does Measuring Intangibles for Management Purposes Improve Performance? A Review of the Evidence.” *Accounting and Business Research*.
- Johnsen, Thomas E. 2009.** “Supplier Involvement in New Product Development and Innovation: Taking Stock and Looking to the Future.” *Journal of Purchasing and Supply Management* 15 (3) (September): 187–197. doi:10.1016/j.pursup.2009.03.008.
- Johnsen, Thomas E., Rhona E. Johnsen, and Richard C. Lamming. 2008.** “Supply Relationship Evaluation: The Relationship Assessment Process (RAP) and beyond.” *European Management Journal* 26 (4) (August): 274–287..
- Kale, Prashant, Jeffrey Dyer, and Harbir Singh. 2002.** “Alliance Capability, Stock Market Response, and Long-Term Alliance Success: The Role of the Alliance Function.” *Strategic Management Journal*.
- Kaplan, Robert S. 1994.** “Devising a Balanced Scorecard Matched to Business Strategy.” *Planning Review* 22 (5) (October 9): 15.
- Kaplan, Robert S., and David P. Norton. 1996.** “Linking the Balanced Scorecard to Strategy.” *California Management Review* 39 (1): 53–79.
- Kasanen, Eero, Kari Lukka, and Arto Siitonen. 1993.** “The Constructive Approach in Management Accounting Research.” *Journal of Management Accounting Research* 5: 243–264.
- Lamming, R., P. Cousins, and D. Notman. 1996.** “Beyond Vendor Assessment- Relationship Assessment Programmes.” *European Journal of Purchasing & Supply Management*.
- Le Dain, Marie-Anne, Richard Calvi, and Sandra Cheriti. 2011.** “Measuring Supplier Performance in Collaborative Design: Proposition of a Framework.” *R&D Management* 41 (1): 61–79.
- “Les Priorités des Services Achat en 2013.” 2013. Agile Buyer / Groupement Achats HEC. http://www.agilebuyer.com/memo/presse/Enquete_AgileBuyer-HEC_Tendance-2013.pdf.
- Lev, Baruch. 2001.** “Intangibles: Management, Measurement, and Reporting.” *Brookings Institution Press*.
- Liebeskind, Julia Porter. 1996.** “Knowledge, Strategy, and the Theory of the Firm.” *Strategic Management Journal* 17: 93–107.
- Marks, Mitchell Lee, and Philip H. Mirvis. 2010.** “Joining Forces: Making One Plus One Equal Three

in Mergers, Acquisitions, and Alliances”. John Wiley & Sons.

- Marr, B., D. Gray, and A. Neely. 2003.** “Why Do Firms Measure Their Intellectual Capital?” *Journal of Intellectual Capital*.
- Martinez-Hernandez, Veronica. 2003.** “Understanding Value Creation The Value Matrix and the Value Cube.”
- Milas, Matthew. 2005.** “The Economic Value of Supplier Working Relations with Automotive Original Equipment Manufacturers.” Master’s Theses and Doctoral Dissertations (January 1). <http://commons.emich.edu/theses/108>.
- Möller, K., and P. Törrönen. 2003.** “Business Suppliers’ Value Creation Potential: A Capability-Based Analysis.” *Industrial Marketing Management*.
- Monczka, Robert M., and Steven J. Trecha. 1988.** “Cost-Based Supplier Performance Evaluation.” *Journal of Purchasing & Materials Management* 24 (1): 2–7.
- Newman, W., and T. Krehbiel. 2007.** “Linear Performance Pricing: A Collaborative Tool for Focused Supply Cost Reduction.” *Journal of Purchasing and Supply Management*.
- Peters, Jürgen. 2000.** “Buyer Market Power and Innovative Activities.” *Review of Industrial Organization* 16 (1) (February 1): 13–38.
- Philippart, Michel, Christian Verstraete, and Serge Wynen. 2005.** “Collaborative Sourcing: Strategic Value Creation Through Collaborative Supplier Relationship Management”. Presses univ. de Louvain.
- Pohl, Mathies, and Kai Förstl. 2011.** “Achieving Purchasing Competence through Purchasing Performance Measurement System design—A Multiple-Case Study Analysis.” *Journal of Purchasing and Supply Management* 17 (4): 231–245..
- Ramanathan, Ramakrishnan. 2007.** “Supplier Selection Problem: Integrating DEA with the Approaches of Total Cost of Ownership and AHP.” *Supply Chain Management: An International Journal* 12 (4) (June 26): 258–261..
- Reed, F.M., and K. Walsh. 2002.** “Enhancing Technological Capability through Supplier Development: A Study of the UK Aerospace Industry.” *IEEE Transactions on Engineering Management* 49 (3): 231–242..
- Simatupang, Togar, and Ramaswami Sridharan. 2005.** “The Collaboration Index, a Measure for Supply Chain Collaboration.” *International Journal of Physical Distribution & Logistics Management*.
- Sinha, Pankaj Raj, Larry E. Whitman, and Don Malzahn. 2004.** “Methodology to Mitigate Supplier Risk in an Aerospace Supply Chain.” *Supply Chain Management: An International Journal* 9 (2) (April 1): 154–168.
- Sveiby, Karl-Erik. 1997.** “The Intangible Assets Monitor.” *Journal of Human Resource Costing & Accounting* 2 (1) (December 31): 73–97.