

# PHYRAMID OF COMPETITIVENESS AND APPLICATION TO COMPETITIVE ANALYSIS OF FORESTRY SECTION

**Peirano, Claudia**  
Asociación Forestal Argentina  
Argentina  
[claudia.peirano@gmail.com](mailto:claudia.peirano@gmail.com)

Reception date: 05/27/13 – Approval date: 09/15/13

## ABSTRACT

This paper proposes a methodology to extend the dimensions in the strategic analysis that promotes innovation and a long-term perspective incorporating the concepts of economic, social and environmental decisions within the company. To do this, we have identified six strategic levels of analysis that are presented with its theoretical and managerial tools and management practices in forestry examples. Each level is based on the most important theoretical neoclassical and neo-institutional contributions of the past three decades. The separation of the levels has one purpose of facilitating the analysis, but it is necessarily interrelated and has feedback. It is shown that the limits of the company have expanded, and with that, the areas of managers responsibility. It is argued that management aligned with the business environment in order to achieve innovation and sustainability in the long term is the new management challenge.

**KEYWORDS:** Competitiveness; Intangible Assets; Transaction Costs; Cluster; CSR.

## INTRODUCTION

The forest-based sector is undergoing a quiet revolution in how they approach the business of production and marketing of wood-based products. Business strategies have been modified to be focused exclusively on the productive and cost to an approach where the consumer and their preferences are the drivers of change and new players such as community, Nongovernmental Organizations (NGOs) and unions, which can affect the decisions and business results. Consumer preferences have become more complex, and additional to the product quality attributes, it also requires demonstrating that it is produced in

an environmentally way and socially sustainable.

This does not mean that technology and care costs are no longer relevant to the business. Technological change, especially in information technology and its impact on globalization have changed the forms and sources of income. Biotechnology and nanotechnology offer new opportunities. Innovation it is the engine of competitiveness, and innovation in a human product that occurs under specific conditions and at a given location. Global competition is not between companies, it is between value chains and between clusters located in different regions. Human capital (product of the relationship between skilled human resources, network organization and incentives) of the company and its value chains becomes a determining factor in many strategic industries. The emergence of supplier development programs and the development of global chains as international expansion are manifestations of this phenomenon.

To incorporate these changes, the strategic analysis businessman has had to overcome the approach introduced in the 80s, which marked an alignment of the company / product with the forces of market competition, to include an analysis of the value chain as productive -suppliers and customers- and institutional -universities, training centers, government offices, national and international investigation agencies-. In the 90s, it is set that the cluster concept as a unit of analysis of the business environment. The company found that not only it must be alert to changes in the market and the consumer, optimizing production and internal process, but must also leave their traditional boundaries to intentionally influence the performance of the entire value chain in the quality and relevance of training and research institutions, in promoting generation of public sector to promote innovation. The innovativeness of firms and sectarian competitiveness are territorial and institutional component that favor them. The location of the business and management of the corporate value chain become part of strategic and management decisions.

Since the mid 90s and especially after 2000, other variables have been incorporated into strategic and theoretical analysis. The concern for environmental and social sustainability and its manifestations in climate change and social vulnerability -poverty, exclusion and unemployment- have been changing expectations of society about the role of business and the responsibilities. The legitimacy of business activity is being questioned in relation to the positive effects they have on society and the environment.

Consumers formed and informed by the media and non-governmental environmental and control organizations contribute on consumption and investment choices to demonstrate this growing concern. The emergence and expansion of certifications sustainability and

traceability trend that is not an option but a mandatory requirement -at least in products related to the use of natural resources and human consumption- are declarations of this phenomenon. These forces help to develop a coordinated value chain in a more intentional way, expanding the limits of the company and the actions of managers.

Social concerns also affect supply. It is noted how the location of industries is being influenced by the preferences of communities. This social concern is being perceived and also used by political groups, which found the slogans of the political campaign of quick impact in society and with that they may be forming -or distorting- perceptions of the community regarding certain productive activities. In what could be called electoral opportunism, these slogans can be translated into laws that affect local or regionally -artificially- development opportunities in a sector, regardless of their economic viability and social and environmental sustainability.

Human resources, customers, suppliers, the community, the media, NGOs, the political system, unions, are important participants to determining the viability of a company and industry in the long term. These are called interest groups (stakeholders) whose analysis and management should become an inseparable part of a long term strategy.

This new knowledge economy and intensive information has allowed the generation of value from human creation and communication -called intangible assets-. But it has also increased the presence of what we might called intangible liabilities -or the possibility that acts or omissions of any of these groups affects the normal development of the company or the perception of society with respect to products or production activity-. These actions, expressed through boycotts, strikes, restrictive regulatory requirements, removed collaborations, negative media campaigns, etc., can have costs that can directly affect the viability of the company. Specifically, the discount rate for an investment in a socially or politically vulnerable company must be adjusted by a risk index that reflects the eventual intangible liabilities. A comprehensive competitive analysis must incorporate a way to observe the environment to forecast the sources of conflict and create a management system for them.

What does managing the environment means? How far should I manage? This leads to the need to identify and define the boundaries of the firm. The theoretical conception of the company has evolved and it is accepted that the borders of the activity need a new revision to incorporate the human, environmental and social dimension, and allow non-economic management. The advances that have occurred in the neo-institutional theory and its potential application to management and environment impacts of the company, allow

incorporating strategic conceptualization through the concept of sustainability, the long-term analysis. These concepts are useful for Social Responsibility strategies, little understood concept, overused, and often confused with philanthropy applied to improve the image of the company, without understanding that the concept, from the strategic view, should generate a different approach on how to develop business, find a source of value and is linked intrinsically to the sustainability of the company.

## DEVELOPMENT

### An integrated framework of competitive analysis: The Pyramid of competitiveness

In order to integrate the approaches mentioned in this analysis, the Pyramid of Competitiveness Analysis has been developed in six strategic levels. The separation at various levels is performed for the purpose of ordering methodologically different dimensions of analysis, which starting from the traditional focus on the company and the factors of production, advances in the following dimensions at its highest level of analysis, including the net value of the company and necessarily, the consumer.

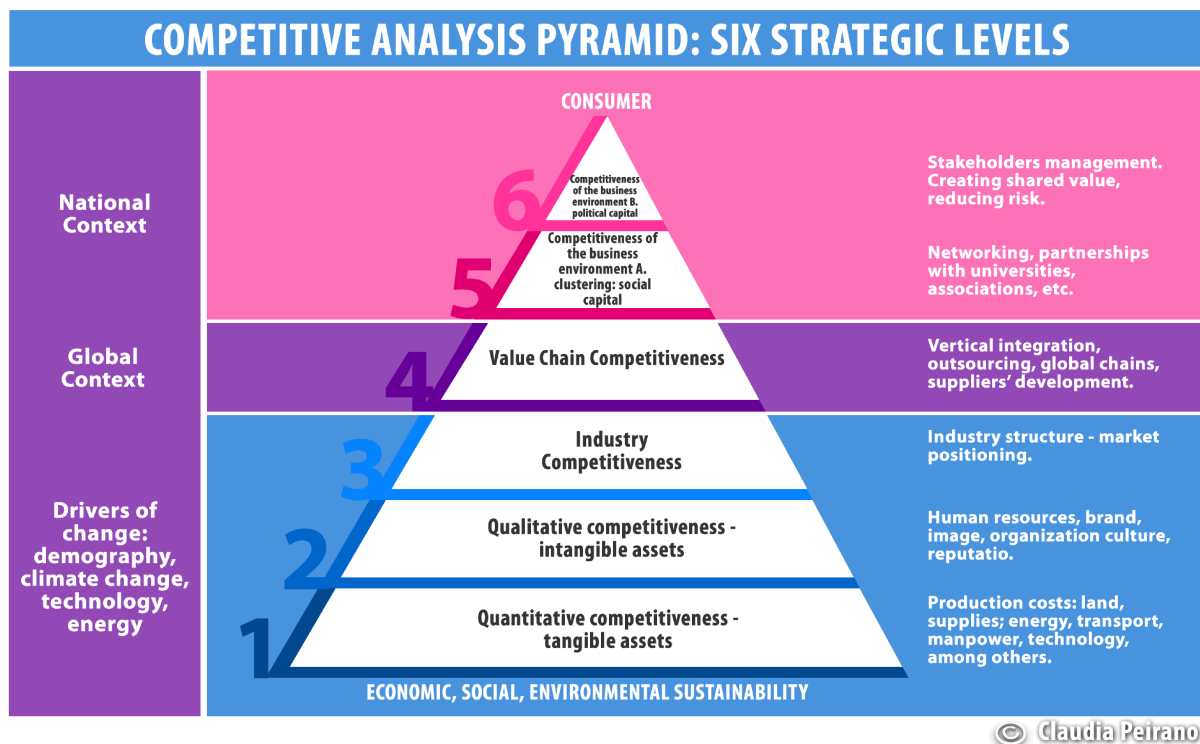


Figure 1. Pyramid of competitiveness analysis: six strategic levels  
Source: Own Elaboration<sup>1</sup>

<sup>1</sup> The pyramid is developed based on an idea presented in a power point by Poyry in 2007 without

The consumer is at the top of the pyramid, and is the driving force behind business decisions. A product or service that does not incorporate the attributes valued by the demand, is an asset without market value. At the base of the pyramid, is placed the economic, social, and environmental sustainability, as requirements for a long term business and as a signal that must be present at all levels. Prevalence of financial indicators business analysis over the strategic analysis, in many cases makes prioritizing, the optimization of the outcome in the short term and a static view of the business, rather than proactive and comprehensive vision and sustainability over time.

Outside the pyramid, as exogenous factors that make business conditions and rules are global context, with indicators of gross output growth and relative changes -such as the growth of emerging countries like China and India and the effects of the housing crisis erupted with global effects in 2008-, regulatory changes or commercial policy of the WTO (World Trade Organization), European Union, etc.. External changes which also require to be monitored listed as most important by breaking effects of scenarios are demographic factors, climate change, technological change, information technology -like bioengineering or nanotechnology may offer-, the energy situation, among others.

The national context -which involves the analysis of the macroeconomic, fiscal, financial, legal, social and institutional country situation, adding the particular conditions of the area and its infrastructure- Provinces, Municipalities -in which it invests.

The pyramid is built by analyzing 6 levels of competitiveness identified: quantitative competitive -tangible assets-; qualitatively competitiveness -intangible assets-; sectorian competitiveness -analysis of the five competitive forces of Porter-Michel-; the competitiveness of the value chain; the competitiveness of the institutional network -cluster development-; and finally, the analysis of the competitiveness of the political-stakeholder analysis. Each of these levels adds another strategic step analysis and allows managing specific assets. The analysis of each level, in turn, is made from a particular theoretical framework which has been developed to meet the need of methodological tools that explain systematically increasingly complex reality.

### **Level 1: Quantitative competitiveness. Tangible assets**

This level includes the traditional economic and financial analysis. It evaluates the Accessibility and cost of factors of production such as land, labor, raw materials, supplies, machinery, transport, energy, capital, etc. Incorporating other costs -such as tax-and-  
publication.

regulatory- allow a comparison of quantitative or static competitiveness of an activity or region with respect to others. Relating these costs -given a certain scale and technology package-, with revenues from sales allow obtaining a financial analysis -Internal Rate of Return, Net Present Value-, which will determine the level of profitability and thus, one aspect of the appeal of the investment and the ability to compete in the market. The most important strategic decisions are linked to the location and the best mix of production and technology which allows getting into the market with the product at the lowest possible cost. A popular method of managing risk in these cases is the use of a decision tree, where it reduces the possibility of the occurrence probabilities of different scenarios. A second method that can be used in sophisticated markets is the use of a Beta financial similar investment. In both cases, the variability of past earnings projected for the future, is the approach to the discount rate on investment.

This traditional analysis has been underpinned by the neoclassical theory in economics. The company is considered a black box (black box) essentially described by its production curve, where the decisions of utilization of production factors are linked to marginal analysis of the quantities and prices of inputs. Under this analysis, the assumptions are that economic agents are rational act, have full information, and therefore, decisions are always optimal.

## **Level 2: Qualitative competitiveness. Intangible assets**

The second level is the management competitive analysis and value creation from the intangible assets. Intangible assets are characterized by not having a physical support that allows a direct assessment and, for this reason, the application and identification as property rights are difficult (Schapiro c. & Varian, Hal, 1999). Therefore, rarely create value from themselves (as producer goods), and must be combined as an attribute to productive and services assets (Kaplan and Norton, 2004). However, we have identified over 100 intangibles acceptable financial valuations and it is estimated that the value of these grew over five times in the 500 largest companies in the United States between 1980 and 2000 (Hand and Lev, 2003). These include the brand (linked with the image of the product and of the company), the client (quality of care), the quality of human resources (training and motivation of the workforce), software and embedded technology (amount and quality of information processing), access to credit and relational contracts (organizational reputation). Unlike financial assets and tangible assets are difficult to imitate, which makes them a source of sustainable competitive advantage (Kaplan, R. and Norton, D. 2004).

The creating mentioned basis for intangibles include innovation (Research & Development), information management (technology, networks, database); organizational capital (leadership, organizational culture, values) and human capital (knowledge, training, teamwork) (Kaplan and Norton, 2004; Hand and Lev, 2003). These factors are interrelated, allowing a collaborative environment in which information is processed to generate innovation and continuous improvement of products and processes (Bontis, et al 1999). This involves investment in research and development, investment in human resources and management development, systems for collecting, processing and use of information, to build a solid reputation and image of the company both in and outside the company.

To be clear, while in the previous level data of importance was the cost of labor, with this level, we add quality to the same extent by training, responsibility, teamwork and commitment to the company. The sales value is complemented by customer satisfaction. At the cost of inputs and raw materials are added to the confidence of the network of suppliers and contractors.

The theoretical and managerial tools for this type of analysis beyond those granted by neo-classical theory. The company is not a black box anymore and the way people relate, managing the information, knowledge and skills and talent of people, become central to the competitiveness of the company<sup>2</sup>. Is also different the management skills required to manage intangible assets.

### **Level 3: Sectorial Competitiveness - Industrial structure**

While the first two levels are linked to the company and the management of it, this third level begins to look outside the company evaluating the sectorial and competitiveness of the company in relation to the competitive forces in the market. Michael Porter (1980) developed this model that identifies five forces that compete for the profitability of the firm: the bargaining power of suppliers, bargaining power of customers, the barriers to entry in the industry, substitute products and rivalry in the sector itself. The characteristics of these forces individually and in the development of the Level 4 we advance in the theoretical framework within the Signature Theory combined, are what determine the potential profitability that the industry can achieve. Porter proposes to the company certain tools to counter the effects of these forces and two general strategies position: being minors in costs or differentiation. Porter's contribution, now nearly 30 years, static and partial, remains as an irreplaceable

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<sup>2</sup> In the development of Level 4 is advanced in the theoretical framework behind the Theory of the Firm.

approach to systematically analyze economic forces in the market and evaluate the positioning of the company against these factors.

Porter identified five forces: rivalry among firms; the barriers of entry; substitutes' goods; the bargaining power of buyers and suppliers; all of which are relevant to an investment analysis for forest and forest industry. Without attempting to apply an extension of the model to the sector, for example it can be mentioned that the production scale and access to capital investments in pulp and paper are barriers to entry that have determined the form of expansion of the sector in the world. Accesses to forest land or availability of raw materials are two key entry barriers to investment. The change in relative prices or quality of products made with substitute materials -plastics, cement, etc.- affect the competitiveness of the wood. A recent case is the expansion of shale-gas production, which has allowed the reduced of cost of energy in the United States, in turn, it has reduced the possibilities of the use of wood energy. The bargaining power of buyers and sellers in an industry in which companies of different sizes coexist and that the cost of transport marks the geographic boundaries of the market, it is vital to analyze.

In summary, the analysis of Porter provides a systematic tool to analyze the forces identified in the framework of neoclassical economics that affect the potential profitability of a sector in which the company produces and invests and provides elements for positioning decisions against them.

#### **Level 4: Competitiveness of the production chain: customer input**

This level of analysis extends the analysis of previous levels, evaluating the complete production line. The management of the production chain, locally and globally, it is considered a crucial issue in the competition. The competition is not between companies, it is between the national and global value chains (UNIDO, 2002). The concepts involved in development decisions in the chain of production include the integration (or disintegration) vertical, outsourcing, strategic alliances, joint ventures, or consortiums. The aim is to achieve an organization's supply chain as efficient as possible locally and internationally.

The new information technologies have produced big changes in the way companies' insert internationally. It is observed that there is trade integration with disintegration of production chains (UNIDO, 2004). The production of goods and services takes place in a place that has the best competitive advantages. The outsourcing is a phenomenon that presents risks and opportunities for businesses. In this context, the decisions related to the forms of coordination of the production chain (and services) and management have high



impact on the competitiveness of the company. Although this applies to most of the production processes of tradable goods in the case of the forestry sector it is even more evident. The expansion of forests as providers of fiber crops at the expense of traditional native forests is an important change in the location of industries.

The production of a good involves the linking of a number of production links, as in the case of forestry, begins in the nursery -if we talk about forest cultivation- and ends at the final consumer. The fiber obtained from the process of forestry and forest harvesting industry can go from solid wood -with various levels of added value-, the grinding (pulp, paper and board) and energy. The production of each final good has its own supply chain that is interrelated with the other.

It is noted that these chains show different ways of coordination: from vertical integration where a company makes in-house from research and development to its own nursery, planting on their own land, industrialization and the distribution and sale to levels wholesalers or even retailers, to systems where each link is independently owned and production is bought and sold in the market of products and services involved, seedlings -planting services, harvest, manufacture of wood, etc.-. During the 90s there was a major restructuring of the forestry sector in which it was observed -mainly in the U.S. and Canada- the emergence of the TIMOS (Forest Investment funds) that promoted the separation of land ownership business industry base in forest (Sande, 2002). Meanwhile, the emergence of supermarkets furniture, as IKEA, joined global production contracts where IKEA reserves the contracted product design and timber companies to produce. In the same period, there was strong growth in Argentina of integrated forestry industry (under one ownership) and forest outsourcing at the expense of own personnel performing companies, the expansion of forestry consortiums fire protection and research (CIEF), including various contractual forms, such as the case of Faber Castell hired purchasing certified poplar wood in Mendoza (Argentina) for international production of pencils.

It is observed that the coordination of the production line going from the property of all links (vertical integration) to the situation in which each link has different owners and different markets there exist and contractual forms that coordinate production and forestry services. Are these forms of coordination indifferent from the competitive point of view? Do they cost the same? From traditional neoclassical analysis, these decisions had in no way been justified. It was more a matter of management or fashion smell (downsizing, outsourcing, etc.) That led to outsourcing decisions, integration, etc. But different forms of organization can have very different costs. These costs are not included in production costs but are called

transaction costs.

The largest contributions to the theoretical analysis of the company and their interrelationships are concentrated in the theory of the firm (see Williamson, O. Winter, S. 1993), which includes contributions as diverse as the Theory of Transaction Costs (R.H.Coase, Oliver Williamson, Oliver Hart), agency theory (Jensen and Meckling), evolutionary theory (Sidney Winter), among others.

This body of theory provides new tools for economic analysis of the company. In this case, the analysis unit stops being output curve and becomes to be the transaction. The transaction is defined when a good or service is transferred between two parties technologically separable (Williamson, 1981). The analysis of this transaction is compared to the analysis of an explicit or implicit contract, which sets out all the conditions. Taking this as a basis, the company is analyzed as a nexus of contracts (Hart, 1993). Analysis of the relationship with suppliers of labor, services, raw materials, production, marketing, etc. is – then-, a continuum ranging from contractual and hierarchical relationship property (within the company), to purchase one end market (external).

Contracts within the company (with a hierarchy in decision making and property with respect to the factors of production such as land, machinery, etc.) have more control over the production process while those goods or services which are acquired through a market price (wheat, canned software, transportation) are external to the company. Among the hierarchical and decentralized system, there are different ways of formal contracts (short or medium term, strategic alliances, joint ventures, partnerships, etc.), and informal, based on relational contracts. Whilst standard contracts are written and have legal backing, relational contracts are held by the value of the future relationship (Baker and Gibbon, 2002). For that reason, are informal, implicit and self-regulated.

In these theories, leaving aside the assumptions of rationality and complete information neo-classical homo economics and appears the Homo contractual, acting with incomplete information, bounded rationality, and opportunistic behavior. In these cases, the contract is essentially incomplete and has risks and associated costs (Hart, 1993).

Transaction costs are determined by the possibilities of writing and enforcing the contract. Expenses include necessary information for planning and control -what, who, how, how much-; spending incentives, monitoring and control and adaptation (Williamson, 1981).

The magnitude of transaction costs will depend on legal and cultural aspects to allow enforce the terms of the contract, of the information available -which reduces uncertainty-, but also its distribution -asymmetric information (where one part has relevant information that

the other does not have and allows the potential for opportunistic behavior)-, of control and, even, the bargaining power of the parties.

Transaction costs vary between countries and sectors and are directly related to the institutional, legal and cultural traditions, and become central to explain the investment attractive –or perceived risk-, the competitiveness of a sector and even possibility of growth and development<sup>3</sup>. (Olson, 1996; North, 1991).

Taking the transaction as the unit of analysis, Williamson argues that the magnitude of these depends on the characteristics of the transaction:

- The specificity of the investment required. Specific goods are those whose value is greater in certain use or function than in another alternative (site specificity, physical, human, temporal, etc.)

- The uncertainty and complexity of the transaction

- The frequency of transactions

Applying this to the forestry sector examples we see that:

- When specificity, uncertainty and frequency are high, the prevailing form is vertical integration in the enterprise. For example, a pulp mill is a highly specific investment. Should work all year and the alternative use (if no material is available) is null. Therefore, the possibility of separating forest production industry depends on the probability of ensuring a reliable supply of fiber. In those places where contract enforcement and application of the laws to enforce them are unreliable, it is more likely that the industry and forestry are under the same ownership. In this case, the transaction costs are reducing negotiation and contractual performance over the risk of a shortage of raw material. Another example is given by the production of seedlings. Leaving the issue of scale, production of seedlings within the company or purchased from a nursery can be analyzed with the same argument: if the company could clearly identify the quality of the seedlings in the market would have incentives to purchase in nurseries. But the information in this case is difficult and asymmetric -the nurseryman knows more about the quality of the seedlings that sells that whoever buys it-. The production itself reduces the transaction cost of information given the possibility of opportunistic behavior by the nurseryman. The reputation (relational contract) and a reliable certification are mechanisms to reduce uncertainty.

- When the specificity and uncertainty is low, the institutional form that reduces

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3. When one asks: why some nations are rich while others are poor, the key idea is that producing nations within its borders not what allows resource endowment, but what institutions and public policies allow (Mancur Olson, 1996).

transaction costs is the market. For example, the purchase of chemicals and general supplies. Wood also is a commodity that is standardized by quality and could be traded in the market smoothly. If there are legal requirements to ensure the extraction, production management and sustainable decent work, the market does not provide enough information about these attributes. For an industrial company that timber control purchase meets these attributes would be costly. It is a typical transaction cost. Thus, certification is a way to reduce the cost of information on the attributes of a product. If there were no certified products by certain attributes, the buyer should do a search for providers that generate high information costs and uncertainty. The certification can reduce transaction costs in the market and create the market for certified products. In the forestry sector, before the expansion of certification, IKEA had an area dedicated to auditing firm providers. Then put a requirement for certification for purchase and is reduced audit area.

- Coordination between the company or the market, there are different forms of coordination: short and long term contracts, joint ventures, franchises, partnerships, consortiums. For example, the need to purchase specific machines by forest service contractors, usually accompanied by long-term contracts for the provision of services for the purpose of reducing uncertainty in a highly specific good that may not have demand for other forestry companies. The fire management consortia also demonstrate a form of organization that seeks to reduce transaction costs, in this case, the associated information (in terms of prevention and attack) and incentives (to assist in the event of a fire).

In short, taking the transaction as the unit of analysis, the form of organization (contractual) that reduces transaction costs will be the most efficient. This includes the form of relationship with the value chain (integration, outsourcing, procurement, market), as the ratio / organization with employees (Williamson, 1981).

### **The boundaries of the firm and the core competences**

The analysis to define the boundaries of the firm is complemented by another fundamental concept to the strategic analysis: identifying core competence (Core competences) of the firm (Hamel & Prahalad, 1998). The core competence of the company is what makes the product a special value for the consumer and it is difficult to imitate or copy. This makes it relatively unique and highly specific asset for the company. In this sense, all that is related to the core competences of the company must be maintained within the same. The rest of the activities, the purchase assessment can be value in the market. For example, in the case of IKEA, the core competence is given by the brand, design and sales channels.

The rest -from forestry to industrialization-, it acquires under contractual forms in different parts of the world.

The same line of analysis can be applied to analyze the global production chains. Those international transactions that require more information about the attributes of the product or require its suppliers to the transaction specific investments tend to get out of purchases and sales in the international market to be under various contractual forms. Again, the case of IKEA, which produces under contracts with reliable countries and suppliers which meet at the moment of ensure the production contracts. The expansion of the chain of custody tracking originally certificated products is another example of the greater connectivity of the entire production chain.

In summary, the final cost of a product is given by the cost of production plus transaction costs. The manager should overcome productive management aspect purely -inward or insidelooking- and should be extended to analyze and manage the organization (governance<sup>4</sup>) of production chain. The limits of the company are expanded and management action should be expanded in order to analyze and manage not only production costs but also transaction costs.

### **Level 5: Competitive Environment. Clustering and Innovation**

Incorporating the concept of cluster as central to competitiveness and innovation, it is introduced by Michael Porter from his book *The Competitive Advantage of Nations* (1990). Although the advantages of the location had significant previous studies (initiated by Alfred Marshall in 1890), the comparative study of the competitiveness of economic sectors across countries and demonstrating the benefits of the presence of clusters in the successful cases, promoted inclusion of territorial and environmental analysis of the company as the local base and industrial competitiveness extensively.

The cluster approach exceeds the analysis of the company and of the production chain. In this case, it includes a set of companies and related institutions that provide goods and services to the sector in a given territory and united by common traits complement each other (Porter, 1999). Includes suppliers of materials, components, machinery and specialized services, financial institutions and firms in related industries, infrastructure providers, standardization institutes, public and private institutes that provide training, information,

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4. Governance is defined as the means by which order is imposed on the relationships between the parties involved in certain economic exchanges through rules (institutions) and own administrative systems that mitigate contractual risk and potential conflicts, fostering conditions to achieve mutual benefits in business (Brito 2007).

research and specialized technical support, state agencies policies affecting the sector, the business associations and intermediate organizations.

These highly productive frameworks to be pro-competitive interrelated allowing specialization of suppliers of goods and services; allow you to focus policy programs to promote small and medium enterprises (PyMES), export and financing; better identify infrastructure needs and targeting the supply of technical training and job training. In particular, the formation of specialized environments has proven especially functional innovation. It is observed that encourages and gives relevance to research in the Science and Technology local system; facilitates the transfer of technology and information among stakeholders and can generate a system of collaboration and competition that facilitates continuous improvement.

This complex network of actors required to operate as a cluster -and that the relationship between collaboration and competition is a virtual system of continuous improvement-, the networking, with seamless exchange of relevant information. The chances that this cooperation occurs depend on trust between the actors, or the so-called social capital<sup>5</sup>. Social capital is the oil that allows this network of companies and institutions to function as a single gear and turn it into a cluster, where innovation becomes the engine of growth (Porter, 1990).

The flow of information and the presence of trust cluster generate another benefit: it reduces transaction costs. The perception of mutual dependence of actors reduces the presence of opportunistic behavior and trust promotes collaboration and exchange of information, promoting the associative and expanding trade opportunities based on trust.

The based forest sector has special conditions for growth in the form of cluster. Transportation costs to encourage based forest industries are established near the resort. Manufacture of wood -sawmills, remanufacturing, furniture-, the ground -pulp, paper, board-, bioenergy, chemical and metalworking industries, transport and logistics companies, specialized software and service providers, make up a production framework that complemented by research institutes, continuing education, associations and local and national forums, and a public sector that acts in the promotion, regulation and provision of public goods and services.

In this sense, the analysis of the localization of the forest industry makes the

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5. Is not the intention of this paper to deepen the concept of social capital. For further discussion of the concept and the variety of approaches, the main theoretical references are sociologists Pierre Bourdieu, James Coleman and Robert Putnam.

productivity and competitiveness of the enterprise in an even more intense than in other sectors. The industrial forestry-industrial parks in which they can reduce transportation costs and optimize the use of waste to energy and crushing industry, for example, have special value to the sector. If the cluster reaches a certain scale, can develop chemical and metalworking industries and specialized services. Infrastructure investments are better based and works treatment and environmental mitigation can be implemented jointly. Close relationships with the university and research institutions allow the funding of research to the needs of the cluster. Strengthening institutions and training techniques can achieve continuous human resources skilled to respond the needed by the productive sector.

Therefore, the promotion and strengthening of the cluster becomes a strategic management task. The concept has implications not only for the location of industries and services, but to promote proactive network -local forums, partnerships with universities, business development services, technical support training, community development, etc.- and investment in trust, through a reputable investment behavior can be creating social capital necessary for a cluster to perform the functions assigned to it.

#### **Level 6: Competitive Environment (two). Interest Groups Management (stakeholders)**

Until the fifth level of development, strategic analysis focuses on the competitiveness of the company and its environment, promoting strategic essentially the first obligation of the firm: profitability. Each of the levels above shows various analysis of cost reduction or value creation from the management of tangible and intangible resources, of the production chain and the cluster in order to improve productivity and innovation. These analyzes are essentially endogenous, short and medium term, primarily from one dimension of the company: economic. The question is whether this is enough. ¿Are they taking into account all the variables that affect the business environment? ¿Is short-term profitability indicative of the profitability of medium and long term? ¿Is sustainable?

In the last 25 years it have been deepened the demands of society towards the actions of companies. It does not reach a legitimization exclusively from job creation. Corruption and corporate greed are perceived as causing cases like Enron and sub-prime crisis that triggered the mortgage crisis in 2008. Furthermore, environmental problems, with its effect on resource degradation and climate change, persistent poverty and internationally and locally unequal income distribution have returned a critical look at the forms of production and responsibility companies on environmental and social issues.

Companies, especially those of high global insertion and linked to the use of natural

resources (forestry, mining, water) and consumer goods (food, clothing, etc.), may be affected investment decisions and production by various actors such as NGOs, community associations and local governments. None of the five levels of previous analysis tools provide or manage situations to provide high impact on the company and the sector, such as the reaction of Gualaquaychú citizens to the Botnia investment in Uruguay, the political and financial crisis caused by the death black-necked swans in Valdivia in 2006, conflicts with the "landless" in Brazil, with the Mapuches in Chile, or the case of the Gunns pulp mill in Tasmania<sup>6</sup>.

This type of analysis requires extending the border again the strategic analysis and management competencies of managers. Therefore, the sixth level includes analysis of the business environment to interest groups or stakeholders of the company. At this level, the environmental and social dimensions of the company become relevant. The main objective of the strategic analysis is to meet the factors that influence in social and environmental sustainability of the business environment, generating value -creating opportunities-, as intangible assets to reduce risks -intangible liabilities-.

Freeman (1984) defined stakeholders as any group or individual who is affected or may affect the results of the organization. Identifying stakeholders is sometimes not easy, and can vary over time. For practical purposes, those that can alter the decisions and results of the company should be considered stakeholders. Among them we can mention the unions, NGOs, community, government, media, academy, etc.

In the same way that in the last 20 years the creation of intangible assets has been at the heart of business growth, the expansion of the activities of interest groups that may affect the survival of the company, which has increased what we call intangible liabilities.

Intangible liabilities may appear for environmental reasons (legal claims, excessive regulations), social (boycott or attacks to the company by NGOs or community -eg. Wildfire intentional), labor (removed from employee collaboration, increased conflict) Image (loss of brand value and consumption reduction) reputation (difficulties in relational contracts, social and political vulnerability).

This strategic analysis area is in full development. Is necessarily interdisciplinary and more linked to the political and sociological analyzes than economic and financial. It involves the systematic analysis of how the company can impact or be impacted by the environment. The relationship with the community, government, unions, NGOs can be analyzed as relational contracts where the company must understand and meet the expectations of each

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6. Case of the pulp mill in Bell Bay, Tasmania, Australia. [http://en.wikipedia.org/wiki/Bell\\_Bay\\_Pulp\\_Mill](http://en.wikipedia.org/wiki/Bell_Bay_Pulp_Mill)



group. Again, the definition of neoclassical Company makes no theoretical or methodological tools to systematize the analysis of the environment. However, if the company is seen as a nexus of formal and informal contracts, incorporating into the analysis of the stakeholders (interest groups) can also be analyzed as contracts, but in this case, relational.

Mutual trust, reputation, ability to dialogue, are intangible assets that enable managing relationships and managing conflict, also allowing transactions, where another type of contract is difficult to write or enforce (Baker et al, 2001).

In this sense, what is built and accumulates is social capital on the external network of the company, which can be best defined as political capital.

And here again, the profile of manager takes on new importance (Baker, et al 2001). The implementation of an environmental management policy also requires a broader view that, who is management, essentially, is an excellent communicator. The ability to dialogue with strong ethical values and word, become indispensable ingredients. The reputation must be built and maintained, and should be embedded in the organization and in each management level, manifesting itself in the culture of the company.

### **The analysis of stakeholders and the Social Responsibility (SR)**

One of the practices that have spread among companies that wish to attend and report concerns about the social and environmental dimensions of the company is to present the concept of Corporate Social Responsibility (CSR). CSR begins in the 70s and has expanded rapidly over the past 15 years. The dissemination of the concept of social responsibility has been large enough to be driven standardization of practices considered. In November 2010, we published the ISO 26000 of social responsibility. He removed the term Corporate because it is understood that a practice should be considered by any institution. This document is the result of a discussion process that took six years and in which take part more than 90 countries and 40 organizations. The ISO 26000 is a no certifiable guidance applicable to any organization that enables a systematic analysis of a strategy of SR. According to the rule "the essential characteristic of the SR is the willingness of organizations to incorporate social and environmental considerations into their decision-making and accountability for the impacts of its decisions and activities on society and the environment... the social responsibility involves understanding the broader expectations of society" [ISO 26000, p. 7]<sup>(1)</sup>.

ISO 26000 identifies seven principles (see the following Table) and develops seven main areas of action.

**Table 1. The 7 principles of ISO 26000**

THE 7 PRINCIPLES OF ISO 26000
<ul style="list-style-type: none"><li>• Account Rendition (accountability)</li><li>• Transparency</li><li>• Ethic Behavior</li><li>• Respect the interests of stakeholders (stakeholders)</li><li>• Enforcing the law</li><li>• Respect the international norms of behavior</li><li>• Respect human rights</li></ul>

**Source:** ISO 26000

In the center of the action is the company governance: Without proper organization, a strategy of SR is difficult to implement: "requires an organization to take responsibility for the impacts of its decisions and activities to integrate the SR throughout the organization and relationships" [ISO 26000, p. 23]<sup>(2)</sup>. From there the action called core subjects are human rights, labor practices, the impact on the environment, fair operating practices, consumer and active participation and community development.

SR practices, if they are comprehensively and strategically focused can create value through greater customer loyalty, strengthen brand and company image, increase innovation and productivity, reduce transaction costs to facilitate relational contracts with suppliers and customers, increase human capital by attracting and maintaining good human resources, reduce labor and community conflicts as well as NGOs and government.

The ISO 26000 has standard limitations internationally agreed. But it also has the strength to provide a globally accepted standard, with which you can sort the impact management of the business and the relationship with the community, allowing systematic stakeholder management and mainly communicate to society that is addressing the economic, social and environmental development of the company from a transparent and internationally accepted.

Implement a SR facilitates detect, prevent and manage internal and external conflicts to the company, and thus reduce the risks of intangible liabilities.

How can it generate in turn, opportunities for innovation and value creation? In this case, it is useful to integrate the concept of shared value, introduced by Michael Porter in 2010 and relate to who is at the top of the pyramid: the consumer.

Porter (2010) defines the concept of shared value as policies and operating practices that enhance the competitiveness of a company while improving social and economic conditions of the community in which the company operates. Creating shared value is

achieved by identifying and expanding the connections between social and economic progress, responding to the needs and challenges of society. Porter believes that the concept of shared value is not related to. From there the action called core subjects are the human philanthropy, SR or sustainability, but as an approach to find new ways of creating social value and economic benefits. We identify three forms: redesigning products and markets, redefining productivity in the value chain and strengthening the sectorial cluster where your business is located.

Markets and products should be redesigned considering social needs. In this sense, poverty, concern about the overexploitation of natural resources and climate change offer innovative lines clearly identified. In the case of poverty, inclusion of disadvantaged or excluded groups -what is called the "base of the consumers pyramid" (Prahalad, 2005) - is a rapidly expanding area. Tata's car of \$ 2000, is an example of these products. An example closer to the sector, is the invention of stoves that use pellets (instead of wood), another Indian company (First Energy), and allowed to give access to a cheaper and healthier to rural India sector.

On the other hand, the potential of the wood to provide a sustainable future for their characteristics of renewable, recyclable, biodegradable and low carbon footprint is of high value to society. Through innovation can promote the replacement of minerals and other non-renewable or high environmental impact products based on cellulose and lignin. New products can be designed with the new technologies available, such as biotechnology and nanotechnology. We talk about bio-refineries. Much has already been used in tests of lignin to replace minerals such as lithium batteries, cellular wood, asbestos replacement eucalyptus fibers, bio-ethanol, the possibilities are endless.

Expanding the look of the environment to social and environmental needs with a sense of economic value, identify best actions in improving the supply chain and the cluster. In the first case, the improvements that can be made in energy efficiency, logistics, improving productivity and clean technologies in the chain, job security, etc. allow to create value for the entire sector. Masisa's example, which has developed and strengthened supply chain of their products with training vendors, is an example. The development of forest service providers by the companies that hire them, the promotion and facilitation of workers certified contractors are other examples that can be analyzed from the value created and shared in the chain.

And coming to the analysis of the top of the pyramid, we returned to base.

## **CONCLUSION**

The company is part of a formally and informally articulated network that needs to be managed to create value and to reduce risks. This paper argues that to the traditional financial and production analysis must be added the analysis of intangible assets, the local and global production and interest groups-stakeholders to promote innovation and sustainable management business in the long run. Is not enough to make a matching between product markets and business organization, or in analyzing the competitive forces in the traditional way. The call value chain has expanded, and with it, the border intervention of the company and management needs of managers.

This type of analysis is multidisciplinary and comprehensive. Analysis requires political, sociological, legal, financial and economic addition. Different approaches linked to management still reflect the neoclassical economic paradigms that have proven insufficient to analyze the current dynamics of the forces that affect business and its environment. The analysis of production costs, the financial return and market structures, even they are still necessary, do not incorporate dimensions linked to formal institutional frameworks -laws, regulations- and informal-culture, custom, tradition- that are, ultimately, those who make the rules of game in a productive activity. The reality shows that may be a determinant factor in the viability of a company.

## **BIBLIOGRAPHICAL REFERENCES**

- (1) ISO 26000 (2010). Responsabilidad Social Geneve. Ed. International Organization for Standardization (ISO), p. 7.
- (2) ISO 26000 (2010). Responsabilidad Social. Geneve. Ed. International Organization for Standardization (ISO), p. 23.

## **BIBLIOGRAPHY**

Please refer to articles Spanish Bibliography.

## **BIOGRAPHICAL ABSTRACT**

Please refer to articles Spanish Biographical abstract.