The fact that 80 percent of Mexican forestlands are under common ownership impacts the competitiveness of the forest products industry and forest sustainability. Community forest enterprises (CFE) are a heterogeneous group of forest industries managed by indigenous and local communities for livelihood and profit. Many CFEs face inner competitiveness problems, challenging public policies, and structural lack of trust within the industry. Despite the tendency to operate in isolation, Textitlán, Ixtlán and Pueblos Mancomunados, three CFEs with similar levels of organization, management and manufacturing technology, have vertically integrated from forest management to retailing furniture through a company: TIP Muebles. The case illustrates the factors impacting entrepreneur CFEs to integrate needs of the market, the challenges of manufacturing FSC furniture within a collective management model of social capital. While external regulatory frameworks and macro environment forces influence industry performance, CFEs need to innovate and adapt their decision-making structure to change and some are trying new opportunities in the marketplace.

The results of this research show that the main challenges are related to human capital, the current approach of forestry regulation for wood transformation, and the decisions based on tradition rather than efficiency. The studied CFEs are resilient and barely surpassing the profitability threshold despite the challenges identified. Adaptation of their decision-making structure allows them to face the changing dynamics of the market. Democratic approaches to decentralization of forest policy, trust development between social and private enterprises, and an improvement in internal CFEs systems, offer opportunities for competitiveness in the forest products industry for CFEs.
Opportunities and Limitations for Community Forest Enterprises. Case of TIP Muebles, Oaxaca, Mexico

by
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A THESIS

submitted to
Oregon State University

in partial fulfillment of
the requirements for the
degree of

Master of Science

Presented September 24, 2009
Commencement June 2010

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

____________________________________________________________________________________
Gabriela Valeria Villavicencio Valdez, Author
The author expresses sincere appreciation to Mancomunados, Ixtlan and Textitlan managers for their entrepreneurial spirit, and I hope this contributes to their efforts.

To my father, always present.

To my mom who taught me to let go.

To my brother for being my inspiration.

To Elpidia, Magdalena, Veronica and Eduardo Villavicencio for their lovely support.

To my great friends for their joy, love and trust.

To Eric Hansen, for giving me the opportunity to appreciate my roots from the distance and taught me to be humble regarding my knowledge.

To Efrain Cruz who encouraged me to envision this project.

To Elia Bautista for her kind support while starting this adventure.

To John Bliss, for his follow-your-bliss’ advice.

To Rosa Maria Velazquez for sharing her time and vision about Oaxacan research.

To all the people who stopped for a moment to share and be aware of reality and for participating sharing their knowledge.

To the Business Solutions Group for the sense of cooperation and valuable opinions.

My special gratitude to Ashlee Tibbets, Mattie Davenport, Derek Thompson and Vardan Rathi for their kind patience in helping correct previous manuscripts.
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1. INTRODUCTION

Competiveness in the wood industry is impacted by the way the entire supply chain is managed. In Mexico, where 80% of the forestlands are community owned, the ownership structure impacts the performance of the forest products industry and is a vital factor in forest sustainability. The generic term “communities” refers to both the common property and community land tenure systems existing in Mexico since the second decade of the twentieth century. These ownership forms came about after the Mexican Revolution and are called “ejidos” and “comunidades” or agrarian communities (Bray and Merino, 2005).

For the purpose of this analysis, Community Forest Enterprises (CFE) is used in specific reference to forest industries managed by indigenous and other local communities for livelihood and profit (Clay, 2002). Community forest enterprises typically produce timber and have varying levels of integration from forest cultivation and management to manufacturing (Bray and Merino, 2005). Most Mexican CFEs fit the definition of small- and medium-size enterprises (SMEs). These small operations constitute the heart of innovation and wealth generation (Erikki Liikanen, 2002) and represent the main employers for domestically and internationally traded products dominating the non-formal sector (FAO 2005, WRI et al. 2005). SMEs include enterprises with between ten and ninety-nine full time employees or with a fixed capital investment of US$ 1,000-500,000 (Macqueen, 2004).

Even though it is stated that Mexico may have the largest number of forest communities in the world with secure land tenure (Bray et al, 2003), there are no precise estimates about the number of communities producing timber and non-timber forest products (Bray and Merino-Pérez, 2006). Approximations suggest that there are 2400 community forests producing timber. Mexico has the largest sector of community-managed, common property forests dedicated to timber production in the world (Bray and Merino-Pérez, 2005). Today it is stated that these communities are better stewards of forests than the federal government (Bray, 2005).

Community forest enterprises are an increasingly significant player in the domestic and global marketplace in the tropical timber-producing countries (Molnar, 2007). In essence, Mexico presents a particular case that has been recognized as an international laboratory
for CFEs (Bray et al 2002). What is unique about the Mexican case is the large number of communities that are managing common-property forests for the commercial production of timber, as well as finished wood products. Indeed it is thought that some cases of communities that own the industrial processes are beyond the reach of most poor and rural communities (Bray et al, 2002). Today, Mexico common-property, community-managed forests, in temperate and tropical areas, appear to be at a scale and level of maturity unmatched anywhere in the world (Bray et al, 2002). The community forest sector in Mexico is large, diverse, and has achieved an unusual level of maturity doing what communities in the rest of the world are only beginning to explore: the commercial production of timber.

Until the 1980s, much of forestland owned by communities in Mexico was utilized by others via private concessions. When this system ended, Mexican CFEs adapted to new market conditions while working to maintain positive social income and new relations with an industry that they traditionally were in conflict with (Forster and Argüelles, 2004). CFEs still face a significant challenge in integrating into the manufacturing sector and creating competitive operations.

The rise of community involvement to actively manage their land in Mexico, which took place in the late 1970s, occurred precisely during a period when tropical deforestation was at its peak. As a result, public natural resource policies were reformed and implemented which facilitated the participation of *ejidos* and indigenous communities in natural resources management. In terms of establishment of community enterprises on a common property base, Mexican CFEs can be seen to be in the second phase of development and common property arrangements. This phenomena is attributed to the fact that land devolution started earlier than counterparts in other countries. It is in this sense that Mexico may be said to be “in the vanguard” or “the face of the future” in community forest management for developing countries (Stone and D’Andrea, 2001).

Mexican timber production and the forest industry are not considered to be internationally competitive because, according to the World Bank, production costs (including transport) are high, community-managed forest are inefficient, few forests are actively managed, and lack of infrastructure makes most of the timber inaccessible (Ross, 2005). In addition, CFEs stumble from crisis to crisis, have serious problems in stable governance, fiscal administration, forest and business management, and traditional patterns of a patriarchal society (Molnar, 2007). However, this does not take away from the fact that an impressive
number of CFEs in Mexico, most likely hundreds, have achieved the constitution of enterprises that deliver benefits to the community, maintain the ecosystem functions of the forests, and are community managed (Antinori, 2005). Organized communities influence responsibility beyond a short term source of income, towards good stewardship. There are examples throughout Mexico of communities that have taken actions to preserve their forests even if they do not have income-generating CFEs (Merino, 1997).

Quantitative research has demonstrated that 42 Oaxaca CFEs appear to be profitable at all levels of integration, thus contributing to community welfare. Ownership and control over production assures access to these benefits (Antinori, 2005). The relationship between good forest management and community forest management confirms the expectations of community forest proponents: “Greater community participation in forest benefits and greater community power over forest management results in better forest use and protection and improved livelihoods for local people” (Klooster, Ambinakudige in Bray et al. 2005). On the other hand, when community forest management is caught up in community conflicts, forest degradation is likely to be the result (Klooster, 2000).

It is important to know that for local communities, the multiplicity of external actors, is likely to result in contested interests (Nygren, 2005). CFEs can provide diverse direct and indirect benefits for rural people in developing countries. Serving as a safety net, it can provide an important source of income, long term assets, and crucial source of employment (Sunderlin et al. 2005). In this way, forest-related activities are mediated by a range of interacting and overlapping institutions, both formal and informal. Small-scale forest operations in developing countries often rely on hierarchical patron-client relations and stratified value chains, with an unequal distribution of benefits (Ribot, 2003). Thus, CFE strategies need to be understood as part of a complex rural livelihood strategy where, in order to manage risk, diversification of income generating activities could contradict competitive and specialized production decisions (Ellis, 2000).

There is a challenge for the inclusion of CFEs into a national public policy capable of increasing the industry competitiveness. There are few examples in the world of formal, market-oriented community enterprises established on the basis of a common property resource, yet Mexico’s forest communities have some examples of this phenomenon (Bray and Merino, 2005). One-fourth of the most forested developing countries have lands owned or managed by local communities (White and Martin, 2002). Consequently, it is unlikely that a forest conservation initiative could be achieved without adapted strategies to
engage rural people in commercial forestry operations (Scherr et al, 2003). Also, without State intervention, banks will look at market benefits but will not necessarily allocate funds to those projects for which the social returns are highest (Stiglitz, 2002). Whenever markets are incomplete and imperfect, government schemes are almost always needed to guarantee competitiveness in the industry (Stiglitz, 2002). Then, forest sustainability by long term strategies could be enhanced by increasing the participation of CFEs through State schemes. Intervention must be integrated with education, values, research and culture reached by their population and reflected in behaviors, visions of sustainability and long term strategic planning (Gallardo, 2005). State participation has the potential to be less costly than allowing the community forest sector to disappear. Recent democratic progress at regional levels in Mexico and local forestry successes offer hope that common property can work. (Ross, 2005). While some CFEs have are well organized and create a network of communitarian participation, most of them seem to face technical and professional challenges related to its low profile of human capital (Molnar, 2007). Social conflicts arise as part of the community natural dynamics diminishing CFE’s steps forward in communitarian assets organization, thus the development of its industry.

As in the rest of the country, the tendency of Oaxacan CFEs has been strongly oriented to operate in isolation, unless an external situation threatens them collectively (ASETECO, 2002). However, their survival is challenged by competition in an increasingly open economy. Santiago Textitlán, Ixtlán de Juárez and Pueblos Mancomunados in Oaxaca, three CFEs with similar levels of organization, management and manufacturing technology are vertically integrated from forest silviculture through the retailing of furniture. Together they have established a furniture retail operation, TIP Muebles. To achieve this, the three communities have created a joint venture company, Integradora Comunal Forestal de Oaxaca S.A. de C.V. (ICOFOSA) to distribute their furniture and take advantage of cost reduction by sharing costs. The creation was based more on the needs of the three factories than on real demand for Forest Stewardship Council (FSC) certified wood (Anta, 2004). The retail operation, TIP Muebles, is seen as creating opportunities to open new markets and get better revenues for their communities (Pérez, 2007). ICOFOSA is showing the capacity to make the transition towards more competitive markets while taking new measures in order to maintain income opportunities, forest productivity, biodiversity, and forest cover in their communities. This thesis provides an overview of the process of active development of strategies to manage and market their forest products. Accordingly, the research has the following objectives:
• To describe the national forest products business environment in Mexico for CFEs and understand the factors impacting forest communities’ ability to address the needs of the regional market.

• To understand the opportunities and limiting conditions for ICOFOSA in the local market for certified furniture made from pine.

How TIP Muebles develops its market strategies and how decision making is taken within a collective management model are questions to be studied using exploratory research. The main benefits or impacts of this research provide a learning tool from the ICOFOSA case to policy makers in the Mexican forest agencies of how social investment has been working and how it could improve the participation of CFEs in the market.

The achievements of the organization and governance structure of TIP Muebles are used to specifically exemplify those that allow this CFE to compete in the marketplace, within its communal ownership. The shortcomings are addressed by observing the intrinsic and extrinsic constrains regarding communal management and regulatory framework shaping the industry competitiveness.

Key factors are further explained and make possible for three forest communities to reach the integration from forest management through to furniture retailing. The case study shows that with adequate access to resources, supportive policies and programs, and transferable technical assistance, rural poor in developing nations can engage in direct (often democratic) actions to generate income and sustain the environment (Ross, 2005).

The outcome of this research will contribute to enhanced management for TIP Muebles and ICOFOSA. Systematizing the current learning experience could also place attention on their strengths to face future challenges. Their experience in the secondary-manufacturing industry will hopefully provide insights for other CFEs, depending on the context, to replicate some strategies for income generation and participation in the market.

This project was conducted in cooperation with TIP Muebles and the Mexico Training, Internships, Education and Scholarships Program from Higher Education for Development (USAID), National Forestry Commission CONAFOR and Oregon State University. This cooperation supported a 6 months field research in Oaxaca City.

The ICOFOSA venture has been adopted as a case study due to the experiences of its former enterprises with more than 20 years of managing the forest, and for being an
enterprise model with a high degree of relevance for CFEs and policy in Mexico (CONAFOR, 2007). Also because its land ownership and indigenous societal structure allows the constitution of a community-based forestry enterprise. In environmental terms, ICOFOSA provides a suitable case study due to arrangements in areas of high biodiversity. From a business perspective, it is an example of community-company partnership with similar processes of vertical integration.

2. BACKGROUND

2.1 Land tenure in Mexico: Community ownership

“The privatization of public agencies and the attack on the welfare state, while relieving societies of some bureaucratic burden, worsen living conditions for the majority of the citizens, break the historic special contract between capital, labor, and the state, and remove much of the social safety net, the nuts and bolts of legitimate government for the common people”. (Manuel Castells, 2004)

Security of land tenure is the foundation of CFEs to have access to markets. In Mexico, 80% of the forests and corresponding wood supply for the industry are on land under social ownership. This concept refers to ejidos, comprised of a group of people who jointly share land rights since postrevolution agrarian reform in 1917 (Ross, 2005) and which land ownership is combined of individual or collective, or comunidades agrarias (agrarian communities), in which the state recognizes a community’s ancestral rights to land that they had occupied before colonialism. Hereafter, when we use the term “communities” in English, we refer to both ejidos and comunidades agrarias as a general category. In this form of ownership 100% of land is in common use (Ross, 2005; Muñoz-Piña, 2003). About 15% of Mexican forests are owned privately and 5% are national land (ITTO, 2005). Mexico then, is a unique case in the world because of its community-based forest management (CONAFOR, 2008). The history of peasant/state relationships has been complex and in most cases the result of long agrarian conflicts, political interests, lack of conditions such as professionalization, and lack of consensus, access to markets, and policies to manage and maintain it properly (Barnes, 2009).

Most forest owners are indigenous groups, and have a high index of poverty. The land is community managed and in general, for these companies, wood is the principal source of income. Accounting for similar patterns in most developing countries, communities own or
manage 22% of the world forested areas (380 million ha) within those 50% have been transferred to communal management during the past 10 years, representing three times more area than the private property (White & Martin 2002 in Merino 2003). Thus, the potential for CFEs in the world is rising and there are some common challenges. Communitarian management in Mexico is two decades ahead as compared to the international trend of tenure redistribution and collective control of forests (White & Martin, 2002). In that sense, the laboratory of Mexico provides insights for communitarian ownership.

However, as in many other countries, local people in Mexico are often treated as an afterthought in forestry development (Nguiffo, 1998). Furthermore, forest trade policies have tended to favor corporate over local interests and often lead to degraded forests and further marginalized rural communities (Ross, 2005). In contrast, new forest arrangements that involve local people have high potential for social and environmental benefits. Enhancing the participation and community involvement creates the conditions for sustainable use of forestlands. However, current policies still impact whether collective forest ownership could be feasible in the face of mounting pressures for land privatization and liberalization in Mexico’s forest sector (Ross, 2005). The premise that local control and democracy can encourage environmental sustainability was questioned with the latter referred to as “the tragedy of the commons” argument (Ross, 2005). The argument stated that degradation occurs when common property is managed in a decentralized fashion and only monopoly (private, corporate, or state-owned) ownership of natural resources will solve the problem of environmental degradation (Hardin, 1968). Indeed, it is said that local ownership will exacerbate the problem due to the individual’s tendency to maximize personal benefits. Based on that assumption, policies promoting privatization of the rural commons in Mexico were justified with such a “tragedy” argument, arguing that collective tenancy is responsible for forest degradation (World Bank, 1995 in Ross, 2005). In Mexico, former corporate-oriented forest policies often lead to degraded forests and further marginalized communities (Ross, 2005). We should take care not to romanticize communities because many are not sustainable, and do not have inclusive approaches. However, market-oriented policies without including local support or lacking sound management practices can lead to diminished natural resources, increased political instability, and poverty (Ross, 2005)
Beyond economic efficiency, for communities, land tenure has deeper considerations of well being. Robertson (1993) commented that “land meant agriculture, crops, surpluses, rents, food in the belly, and riches; it meant place and position, status and power, security and continuity”. Therefore, land tenure is an institution that mediates the relationship between social and ecological components of a social-ecological system (Barnes, 2009) and it includes not only the ownership of the land but also the access, rights, its uses, and the perception of owners towards it. Secure land tenure provides meaningful employment, generates supplementary incomes, builds community pride and trust, contributes to democratic decision making, increases environmental awareness and improves forest health (Ross, 2005).

The present and future of ejidos is also influenced by external dynamic factors, such as the driving forces of the market, state land use policies, public decision making processes, national migration patterns, availability of raw materials such as timber, and even new emerging non-commodity markets such as carbon credits. In Mexico, those factors play an important role in the natural wealth and resilience of “ejido” and “communal lands” and in the competitiveness of the forest products industry. The progress of ejidos and CFEs in Mexico is best understood in the context of Mexican land-use history for control over the forest.

### 2.1.1 The historic formation of CFEs

It was expected that after the Mexican Revolution (Figure 2.1), land redistribution from the haciendas could give some stability to the regime (Antinori, 2007). For many years, the reality was that most communities were almost completely shut out of Mexican forest policy (Ross, 2005). The governmental diagnosis behind the forest policy was that poor campesinos (peasants that are not necessarily commons) do not have the experience or the capacity to manage complex forest resources. It was based on this belief that the rentismo policy was the first institutional agreement giving large forest concessions to the private sector (Muñoz-Piña, 2003). The concessions congregated multiple forests of several communities without intervention on either the selection process of the concessionaires or in the prices. The agrarian agency, Secretaria de la Reforma Agraria (SRA), received from the concessionaires the stumpage fee “derecho de monte”, which was administratively fixed far below the market value (Chapela in Bray, 2005) and it was oriented to the agency administration and to an eventual payment to the participant ejidos and comunidades (Muñoz-Piña, 2003).
Further, the concessionaire then controlled all activities in the forest, alienating the communities from their own forest (Chapela in Bray 2005).

The concessionaire model prevalent after the 1920s was based on four elements: 1) the direct government investment in the pulp and paper companies and industrial sawmills; 2) government investment in infrastructure, roads and technical assessment; 3) guarantee of provision from community forests and, 4) a protected wood market controlled by tariffs and imports limits (Zabin, 1993). When in balance, the almost unseen benefits of concessions were the fact that they sustained several years by creating the technical capacity, training and knowledge to the early development of industrial silviculture in Oaxaca. However this model also created social problems as it marked the beginning of loss of control of the community over the forests (Zabin, 1993).

In Oaxaca, the first concessions were granted to privately owned industries, then later to state-run enterprises. The 1947 forestry law established that communities could only sell wood to Forest Exploitation Industrial Units. In Oaxaca, the North Sierra, Pueblos Mancomunados and Ixtlan were given as a concession to the paper company Fabricas de Papel Tuxtepec FAPATUX. Textitlan which is located in Sierra Sur was given to the company Bosques de Oaxaca [a plywood, board, and veneer factory] (Chapela in Bray, 2005). The responsibility of forest management plans fell to a forest engineer who was contracted by the companies under authorization from the government (Chapela in Bray, 2005).

The 25 year concession controlled 261,000 ha of the Sierra Norte. The underlying logic of the concession versus that of the communities is simple. The concessionaire’s access rights expire after a period of time; therefore, companies did not invest in anything that would pay off after the 25 year concession period (Chapela in Bray 2005). In other words, there was little incentive for concessions to make long term investments, especially in natural capital.

In 1960, while the concession had not fulfilled the objective of overcoming the trade deficit in forest products, the new forest law sanctioned the creation of state-owned forestry companies; new concessions were handed out to the new *parastatales* where the government owned the land but participated with private companies for production. The Agricultural and Resources Agency SRA looked for a favorable relation between concessions and communities. From the 1940s-1970s regulation in the wood industry increased with
permits of extraction prohibitions called “Vedas” (Ross, 2005) and transportation permits (Muñoz-Piña, 2003). The new regulations required professional participation, and were the reason why the wood industry remained out of the complete control and appropriation of the communities. However, by reducing the profitability of forest management with this regulation, the instrument resulted in more illegal logging and deforestation (Muñoz-Piña, 2003).

By the end of the 1970s (Figure 2.1), campesino discontent with inequal distribution of some forest concessions started to create pressure to stop the concession renewal grants (Muñoz-Piña, 2003). A comunero (common) in Macuiltianguis, Oaxaca said of this period: “We seem like workers and not owners of the forest” (Chapela, 2003). Responding to protests, SRA encouraged the participation of ejidos and local communities in the forestry sector (Bray et al, 2005) by creating societies and unions of ejidos with forestry objectives, in some places with the explicit support of state governments or the SRA and the Agriculture Agency, SARH. (Muñoz-Piña, 2003).

![Figure 2.1 Evolution of Forestry Policy in Mexico. The process of land distribution has lead to the current composition of a fragmented sector of CFEs.](image)

The reasons leading some communities to perceive their local forests as marginal resources, and some even viewed them as obstacles in the way of full land ownership were: poor available resources, agrarian bureaucrats exercising strong organizational and technical control, the SRA as a state type of control defining stumpage fee and its trust fund, the SRA staff taking decisions on forest management, purchasing equipment, participating in the application of logging permits, and in the election of ejido authorities. Also, the numerous and complex requirements that legislation imposed contrasted with insufficient financing, a lack of professional forestry personnel, and the centralization of management decisions. In this context, only private enterprises had the capacity to comply with the
numerous, complex requirements that legislation imposed (Bray et al, 2005). The state-owned forestry enterprises appeared to have little difference between them and private companies that had operated during the earlier period of forest concessions; their relationships with local communities had also become conflictive (Bray et al, 2005). Despite the expansion of these state-owned companies, *rentismo* remained an important activity and communities resented the appropriation of resources by concessionaries and it resulted in illegal logging. The continuous undersupply of raw material was a common challenge of those state-owned enterprises (Chapela in Bray, 2005).

The historical process in the ownership of land in Mexico has had multiple social dimensions affected by concessions administered from the 1940s to the 1970s that impacted current forest products competitiveness, health of forests by favoring local elites and controlling the channels of trade (Zabin, 1992). Also, problems with raw material supplies were common for many of the state forest enterprises (Bray et al, 2005). However, during the 1970s and early 1980s, communities in Oaxaca, Guerrero and Durango organized regional alliances to combat the renewal of concessions and to demand control of their own territory and communal forests (Gonzalez, 1992; Chapela, 1999; Alatorre Frenk, 2000; Bray and Merino Perez, 2002; Lopez Arzola, 2005; Barnes, 2009). By 1980, the forest communities in Oaxaca formed a mass social movement against the renewal of the concession scheme. In Oaxaca’s Sierra Norte, they formed the Organizacion para la Defensa de los Recursos Naturales y el Desarrollo Social de la Sierra Juarez (ODRENASIJ) and coordinated mass protests involving more than 30 communities. Simultaneously, other communities across the state started to do the same.

The results were seen in 1986 when the federal government passed the Forestry Law ending private concessions and parastatal enterprises, thus returning control of most of Mexico’s forest to *communities* and *ejidos* (Ross, 2005) and opening up opportunities for more participatory forest management approaches and decentralization (Muñoz-Piña, 2003). The end of the concessions marked a dramatic change in the industrial model that used to work in the Oaxaca forest sector. The first step started by developing the forest community business and, the second was to eliminate the monopoly that FAPATUX and CFO had over wood purchasing (Zabin, 1992). FAPATUX was described as a “school for the new harvesting units in Oaxaca” by a manager who worked in it for 30 years (Zabin, 1992). Foreman and workers of FATAPUX raced to establish their own companies in Oaxaca. Some of those companies also invested in furniture production, veneer, flooring
and doors. The largest companies by the mid 90’s owe their industrial technology to the concession period. There were examples of bonding social capital where the sons of local *caciques* (chieftain or chiefdom), who had been working for the large companies, established their own businesses. Also, some private companies associated with *ejidos* and *comunidades* exchanging capital and equipment for roundwood.

Also, another important institutional circumstance that contributed to the CFEs creation was Mexico’s decision to enter the GATT (General Agreement on Tariffs and Trade) precedence to a Structural Adjustment Plan (SAP). In this plan, state-owned enterprises were to be sold or closed down. Under these circumstances the communities suggested they could take care of forest management and their territories, regaining control over the natural resource base. After demanding control over their own forests, and due to the economic crisis within state-owned forestry companies during the 80s, the increasingly apparent technical and profitability constraints (Muñoz-Piña, 2003) of the concessions regime led communities to demand control over the logging business so that they could create their own CFEs (Chapela, in Bray, 2005). In most cases, the existing unions and societies became beneficiaries of the assets and machinery from their regional concessionaries (Muñoz-Piña, 2003).

The framework of Forestry Law in 1986 abolished forestry concessions and recognized the rights of local communities to manage their forests under an integrated management plan. This plan gave the communities their first opportunity to hold the title of technical forestry service provider (Bray et al, 2005). For the first time in the history of Mexican forest legislation, communities were considered central actors within the sector (Bray et al, 2005). During this time, many communities started the communitarian silviculture; few of them explored sawnwood production and industrial carpentry (Forster and Argüelles, 2004). Soon after De la Madrid’s presidency the majority of the forest concessions came to an end.

Also, to put in balance this decentralization, greater environmental rules were imposed. Once again, the forest bans had failed to protect forests and rather affected the welfare of SME producers and increased the rates of illegal logging (Bray, 2005).

Community forestry in Mexico became an institution due to the result of the combination of multiple factors such as the agrarian reform policy, the struggle by forest communities and the political will of a group of government workers and independent advisors who
became convinced of the viability of community forest management (Bray et al, 2005). Also relevant for the time was the emergence of the urban-based conservationist movement which contributed to the country’s conservation policy by supporting the establishment of biosphere reserves. This new form of conservation seemed to overcome the limitation of the national parks in public hands and in increasing deterioration. Although this policy formally allowed commons to maintain property and offered incentives for sustainable use and management, in practice the scheme still deprived forest owners of their property rights and appropriation of the decision making process. This regulatory approach was encouraged by defining bans on forest use in core zones of the reserve and very strong restrictions in buffer zones (Bray et al, 2005).

During this period, for campesinos, the appropriation of running a forest enterprise was far more complex than traditional forest management. Also, the incorporation of a business culture into the communal organization was an unfamiliar practice. There is a challenge on strengthening their traditional organizational structure while incorporating new schemes to improve planning, financing, accountability and the payment of taxes (Bray et al, 2005). The new model changed the implementation process in the field from occasional presence of professionals to a follow through process.

Within the 1992 reforms the government eliminated technical forestry services and opened to the free market, allowing a decrease in prices which also decreased quality of services (ASETECO, 2002). The trend then, switched into a more market-based approach during the Carlos Salinas 1988-1994 administration allowing the combination of corporate forest use and grassroots development while assuring the security of private property (Ross, 2005; Barnes, 2009). New agrarian reforms and a free-market economic restructuring were precursors to the entrance of the North American Free Trade Agreement (NAFTA treaty). During Salinas de Gortari’s government (1988-1994), changes into the agrarian policy provided communities with greater autonomy, although financial and training support from the government were withdrawn (Bray et al, 2005). In 1992, amendments to Article 27 terminated the government’s historic commitment of land distribution to petitioning campesinos and established the conditions to communal land privatization (Barry 1995). The changes to the agrarian law ended strong state intervention in the internal ejidos decision making process and access to their goods and public services (De Janvry 1996: 71 cited in Bray et al, 2005). The 1992 law empowered ejidos to change their tenure regime to private property (Ross, 2005). With an individual permit, agricultural and residential lots could be
sold to outsiders. However, common property forest resources could not be divided and would revert to the state if the *ejido* was privatized. To diminish the risk of decreasing forest cover, the law allowed ejidos to enter into joint ventures for up to 30 years with private operators, allowing forest plantation owners to control areas up to 20,000 hectares (Tellez Kuenzler 1994 cited in Bray et al, 2005). The same year the liberalization of the technical forestry services allowed a deterioration in the forest due to the absence of minimum quality criteria to guide silviculture. Low pricing then became the selection factor for forest management (Bray & Merino, 2005). Another visible change was the fact that while private forest companies had operated in the context of a closed market, CFEs began facing growing competition from low-cost, imported timber (Bray et al, 2005). This trend is still prevalent.

The agrarian reform established greater decision autonomy, new regulations about property use of ejidos and new problem solving mechanisms (Ibarra Mendivel 1996; Ross 2005). The main change in the law was the possibility to divide ejido lands of common use in individual properties and second; the possibility to incorporate to the new agrarian nuclei, newcomers with rights and obligations towards common natural resources (Muñoz-Piña, 2003). Policies were aimed at improving business and trade with foreign enterprises rather than enhancing the forest sector capacity. 1992 reforms were also taken under the assumption that much of the land was held by elderly people, making its use difficult and inefficient (World Bank, 2001).

During Ernesto Zedillo’s presidency (1994-2000) community forestry continued to diminish in importance. The Secretariat of the Environment, Natural Resources, and Fisheries SEMARNAP created under Zedillo’s mandate, faced a time of structural adjustments and cuts in rural investment by operating with a very tight budget that created difficulties of institutional weakness (Bray & Merino, 2005). Deregulation of forestry activities had led to an increase in illegal logging. Although the 1997 Forest Law introduced more control over the forestry industry and timber transport, an example of an institutional weakness was at timber storage and processing capacities constantly surpassing authorized levels (Pacheco & Caron personal communication in Bray et al, 2002).

As a result of demands of the forestry organizations regarding the financial support of forestry plantations and intermediaries, SEMARNAP created a strategy for local forest communities: PRODEFOR Forestry Development Program and PROCYMAF Conservation and Forestry Management Program, however, the limited resources lessened
their impact (Bray & Merino, 2005). Compared to PRODEPLAN, the Forestry Plantations Development Program was considerably better funded (Chapela, personal communication 2003 in Bray, 2005).

Fourteen years after NAFTA, many industries have experienced lower output prices. Reduction of tariffs meant that CFEs were forced to compete with imports from the US at a time when they were facing reduced public sector support. Although NAFTA has had positive macroeconomic impacts on the Mexican economy, it has had a negative impact on the rural sector which was unprepared to compete on a larger scale. Poverty has worsened, income distribution has become more skewed, employment in agricultural industries has decreased drastically and increased migration into the US has been the reverse of what was intended by NAFTA (Barnes, 2009).

Since Mexico entered GATT and later WTO, the need to invest in technological modernization was obvious. Nevertheless, it did not happen. Nowadays it is clear that obsolete technology utilized by many communities results in high production costs and reduced competitiveness. Frequently, domestically produced wood products are more expensive than imported products. Currently, communities are facing more restrictive rules towards conservation. It is expected that in the near future, nationally-subsidized plantations almost always privates, are going to compete in price with CFEs forest management costs (Forster and Argüelles, 2004).

Thus, the 1992 reform of Agrarian Law could be seen as the trend of decentralization that is currently occurring elsewhere. Common property forests in Mexico are unique in an era where many governments are trying to institute new forms of common property. Mexico has embarked on a reform, but not dissolution, of a massive state-directed effort. Also, decentralization should be done carefully; there is a difference between the CFEs within a regulatory framework or driven by the State and a decentralization as understood in this thesis, as the rights recognition driven by local communities (Ostrom, 2003). Here, decentralization is understood as the “devolution of central state assets and powers to local and private decision-making bodies”(Ribot, 1999). Those powers include: representative local governments, local administrative branches of central government, and non-state organizations or private individual corporations. In the natural resources management literature, decentralization is understood as the devolution of responsibility for resource management to “local people”, with little attention given to local governments and local institutions (Bray et al, 2002).
The significance of any act of decentralization depends largely on “what is being devolved to whom” (Ribot, 1999). In the hands of the beneficiaries, equitable patterns of tenure and decision making are key factors for CFE development. To recognize communities as central players implies strengthening their roles in stewardship as traditional forest owners with interest in preserving regions, resources, and environmental services (Bray, 2005). With highly differentiated structures within communities, confused tenure arrangements tend to undermine long-term investment in the forest resource and favor local elites (Hobley, 2007).

The participatory form of governance practiced by ejidos calls for equitable distribution of resources, but this has been changing since the 1992 Agrarian reform legislation. Land tenure fragmentation is making forest health and survival more difficult (Barnes, 2009). Besides, urbanization, out-migration, and increased dependence on international markets, are changing pressures that have all caused changes in ejido governance. Communities that cannot overcome the problems of generational transfer of knowledge and practices fail to create effective strategies to retain young generations and neglect the needed reform in their governance structure. Just as important as their democratic process is the ability of the ejido or communities through its CFEs to respond to public and market forces.

In 1995 the forestry sector was decentralized from SEMARNAP into a public agency in conservation and management of resources created, the Forest National Commission CONAFOR. Its objective is to develop, support and promote conservation and restoration in Mexico’s forests, as well as to participate in developing plans, programs, and enacting policies for sustainable forestry development (CONAFOR, 2009). Also, CONAFOR goals include the standardization and integration of the country’s forest information systems, the development of productive chains, support for the creation and development of CFEs, the promotion of forest certification, and the creation of national and international financial mechanisms to support forest activities in different regions of the country (Merino and Segura-Warnholtz, 2005).

As other Mexican CFEs, the three communities comprising ICOFOSA, manage their forests for timber with many decisions made autonomously, but also under a strong regulatory framework provided by Mexican forestry law and the Mexican environmental agency, the Secretaría del Medio Ambiente y Recursos Naturales SEMARNAT (Bray et al 2005). It is “co-management” in that forest ownership clearly resides with communities, but the government sets the management framework (Klooster, 2000). As a result, CFEs
are presently largely responsible for their forest planning and management in accordance with the regulatory SEMARNAT framework and affiliated agencies.

The land ownership is the base foundation on which the whole communitarian structure is developed. Within its territory, every *comunero* (common) has the right to use, protect and conserve the values of surrounding natural resources. The physical space is also linked to a special relationship that goes beyond the resources use, into spirituality with land and the basis of identity and the Zapoteco language. Those intangible values exist in the collective imagination of each community (Lee, 2005).

Within this policy framework, there is an increasing tendency for CFEs to abandon sawmills (Forster and Argüelles, 2004) with a shift of preference of *ejidos* and *communities* into the extractive industry of roundwood and firewood producers instead of adding value through manufacturing. This research outlines the drivers of this forest products business environment for CFEs.

### 2.2 Social capital

A society of many virtuous but isolated individuals is not necessarily rich in social capital (Putman, 2000). The core idea of Social Capital Theory is that social networks have value. Mexico is rich in indigenous forms of communal organization. *Ejido* and *comunidad* governance are derived from more ancient institutions and, thus, do not have classically capitalistic roots but the unique agrarian history of Mexico and its early, massive, state-directed efforts created a common property within a capitalist economy (Antoniri, 2005).

While physical capital refers to objects and human capital to capabilities of individuals, social capital refers to connections among individuals and social networks and the norms of reciprocity and trustworthiness that arise from them (Putman, 2000). The combination of physical capital and human capital as well as social contracts affects the productivity of individuals and groups.

Social connections or networks involve mutual obligations. Rather than mere transactions, social connections involve norms of reciprocity (Putman, 2000). Social networks and norms of reciprocity can facilitate cooperation for mutual benefit. Reciprocity should not be balanced instantly after every exchange, but in a broader sense of mutual obligation and
responsibility. Trust can be cultivated and accomplished during the networking process itself. Freire (2002) is convinced that the historical process needed to take place anchored in relationships of solidarity. Solidarity is a form of networking that helps to understand the conditions of globalized economy and the transforming impact of neoliberal economic and social policies in the world’s population (Darder, 2002).

Networks and the associated benefits of reciprocity frequently contribute assistance for those involved, but the externalities of social capital are by no means always positive. Therefore it is important to recognize that the positive consequences of social capital, such as mutual support, cooperation, trust and institutional effectiveness, should be maximized and the negative manifestations such as sectarianism, ethnocentrism and corruption, minimized (Putman, 2000). Thus, the distinction between the bridging (or inclusive) and bonding (or exclusive) dimensions of social capital, are by choice or necessity reinforcing exclusive identities and homogenous groups.

However, social capital can have “externalities” that can positively or negatively affect the wider community so that not all the costs and benefits of social connections accrue to the person making the contact. A well-connected individual may derive some of the spillover benefits from living in a well-connected society. A number of successful cases of community-based forest management, have been favored by the strong organization of many of its communities and the validity of traditional governance structures (PROCYMAF-SEMARNAP 2000:101-102 in Bray et al, 2005). In a similar fashion, a poorly connected individual may derive some of the spillover benefits from living in a well-connected society (Putman, 2000). For example, in the center of the community nuclei, the property distribution given after the PROCEDE program has excluded some campesinos (peasants that are not necessarily commons) from the common lands, which hold the majority of their forests. Given heterogeneity in land distribution of ejidos, the trend to fragment the forested areas is high (Muñoz-Piña Pina, 2005). If bonding social capital structure in the form of an elite group gets to the power of an ejido, private land distribution and its benefits have the potential to become an arbitrary process. In this case, the externalities are the modification of rights of property affecting the use of the forest. If cooperation is high, the majority of campesinos can claim these benefits by discussing within the community before the Agrarian Institution distributes the rights of property.

On the other hand, in communities where the tradition of distribution of forests has caused negative externalities, it is possible to identify a bonding structure favoring inner
small interest groups. For example, a community has divided lands in one of the three different ways established by the ejido. One method can be distributing the land to the adult sons of *ejidatarios*, or commons, the second method to those who have been working on it and the third one, to distribute common lands only among the pioneer members of the *ejido* (Chapela, 2005).

A CFE strategy of improving long-term productive capacity has potential to increase the levels of capital through technological assets and increase the value of the natural resource base. However, education and technical training are overlooked forms of investment into the foundation of human and social capital (Chapela, 2005). Ostrom and Ahn (2003) see the investment of time and effort in creating an organization as social capital. These organizations can then set objectives and establish rules that can improve the economic competitiveness of the CFE, or intercommunity organization, and therefore their networks can be considered social capital (Chapela, 2005).

Social capital in CFEs can also be illustrated with the case of the Union de Comunidades Zapoteco-Chinanteca (UZACHI) in Oaxaca. Its integrating communities were part of the FAPATUX concession. UZACHI as a regional Union preserves natural and financial capital by increasing its social capital. As a result, people from UZACHI now are able to provide their families with decent living conditions, demonstrated by life expectancies, literacy rates, and number of professionals that are well above the average for Mexico (Chapela, 2005).

*Bonding social capital*

Bonding social capital is “getting by”, but bridging social capital is crucial for “getting ahead” (Putman, 2000). Whereas bonding social capital bolsters our narrower selves, bridging social capital generates broader identities and reciprocity. However, bonding social capital, by creating strong inclinations toward group loyalty, may also create strong out-of-group antagonism, and negative external effects may come about from this sort of social capital (Putman, 2000).

Bonding social capital is useful for building the foundation for specific reciprocity and mobilizing solidarity. For example, a Zapoteco community provides crucial social and cultural pride, psychological or financial support for vulnerable members of the community as well as a reliable network for entrepreneurs. Bridging networks, by contrast, are better for linking the external assets and for information diffusion.
To understand the CFE managerial decision making process and its reciprocity norms, the general structure of power and participation in *ejido* or *comunidades* must be understood. This organizational model is a formal structure of power distribution of social capital. This governance model is based in formal norms of trust and reciprocity such as the non-paid service under *cargo system* or the *three years rotation* of managers to avoid centralization of such power. Every community faces its own circumstances and patterns.

Many *comunidades* practice a system of rotating civic and religious responsibilities among registered community members based on merit accumulated by service in a rising hierarchy of civic positions, called cargos (Segura, 1998). The governing bodies of an *ejido* are the General Assembly and the *Comisariado de Bienes Comunales* (Commission of Communal Goods). The General Assembly is the ultimate authority where decisions are taken by consensus or majority rule and elections to office are held every three years, or more frequently. The Assembly meets twice a year, or more frequently depending on needs (Antonori, 2005). In the Assembly, each registered member of the community, called *ejidatario* or *comunero* (common) has one vote. The *Comisariado* implements the Assembly agreements and holds the common property management responsibilities of the *ejido*. Their authority is recognized in the agrarian law as *Comisariado Ejidal* (ejido Supervisor) or *Comisariado de Bienes Comunales* (Supervisor of Community Assets). This body is comprised of a President, Secretary and Treasurer who are elected for a period of three years. Ejidos have an internal edict regarding land governance (Barnes, 2009); it must be ratified by the Assembly and comply with the legal framework of the Agrarian Law (Barnes, 2009).

Many years back, the *ejido*’s fundamental identity was supposed to be a communal and participatory form of governance (Ross, 2005); a livelihood strategy that is agrarian or forest-based and most importantly, equitable (Barnes, 2009). This governance is assumed by some CFEs as an authentic grassroots-driven effort at enterprise organization (Bray et al. 2005). Also, the *cargo system* is the second fundamental basis of communal life and is the participation model of direct democracy where citizens have the right and obligation to serve their community. The nature of its structure does not centralize power. The General Assembly is the maximum level of authority and deliberation, decision making and communitarian performance. Also, decisions made in the General Assembly can be influenced by advice or consultancy from the *Caracterizados Assembly*, where elder and experienced people are present. Every year, the General Assembly elects a group of citizens responsible for public services (Potable water committee, schools, infrastructure,
patronal celebration and others). The municipal authorities or *Cabildo* include a president (and its secretariat), a *síndico* (and its secretariat), a *tesorero* (treasury), from two to four *regidores* (administrative) and several *topiles* (policemen). Those authorities are in charge of town administration (Barnes, 2009). These officers are typically unsalaried and unspecialized toward forestry or any other management skill (Antinori, 2005).

When “men” reach 16 years old they are incorporated into citizen assembly, the most important public space for the communal life. In some places, women are part of these organizations. Eventually, every citizen is supposed to perform a series of tasks over the course of their life. Traditionally, the tasks or responsibilities are completed without any economic support, and as a consequence it represents an important impact on family income. However, there is a prestige associated with positions as the citizen ascends in the hierarchy. The communal positions last from one to three years. A very notable characteristic of the communal power is the capacity to avoid the centralization of the power and make collective decisions. In this way the assembly makes decisions and its performance is developed by the general administration previously described. The General Assembly operates as a space of analysis and discussion of mistakes and successes on the decision process of the community. It can be assumed that because every *comunero* (common) participates in those decisions, the communal power comes from the basis and has a horizontal execution (Barnes, 2009).

This *cargo* (service) system has been adapted to the creation of CFEs corresponding to their circumstances and the degree of vertical integration along the production chain from stumpage to processed wood products (Antinori, 2000). Therefore, CFEs are grafted onto community governance and can vary from different enterprise forms: 1) the *Comisariado* can be the manager of all administrative posts, integrated into the *cargo* or *ejido* system, (In the case of ICOFOSA, Textitlan shares this feature), 2) Managers appointed from the community to auxiliary positions not part of traditional structures but responsible for them (Feature shared by Ixtlan and Pueblos Mancomunados in ICOFOSA venture), 3) professional managers hired from outside the community, 4) paid administrative positions exist in a semipermanent basis and not part of the rotational cargo system (Also shared by Ixtlan and Pueblos Mancomunados), and/or 5) experienced and respected members of the community form a sort of “Board of Directors” with General Assembly meetings as “shareholders meetings” (Antinori, 2005). In the case of Ixtlan, the *Comision Consejera* is
parallel to it, and is also formed by elders who have passed through the entire traditional
governance system.

As an example of a vertically integrated CFE, from stumpage to transformed wood
products; ICOFOSA is the integration across different communities or ejidos with
different traditional structures. The adaptation of the community governance to the
business models enables the community to take advantage of economic opportunities by
retaining their social capital patterns and use of communitarian silviculture. Those social
capital patterns include the introduction of an Advice Commission in the community
governance (Figure 2.2). This body guarantees the decisions taken correspond to the best
interest of the community’s natural resources. In the table below, Ixtlan has an innovative
model of governance where is possible to integrate an Advisory Commission of 21
experienced commons to support the work of Comisariado de Bienes Comunales (Commission
of Communal Goods). The latter is in charge of the profitability of the communities assets,
its management, and decisions taken.

Figure 2.2 General structure of Ixtlan’s community. Decision control and management functions are allocated
in a fashion similar to that of industrial cooperatives.

Similar to a corporate strategy, CFEs’s Comisariado de Bienes Comunales (Commission of
Communal Goods) can be compared with a corporation consisting of several business
units or several groups of business units (e.g. divisions) operating as one financial entity. Its
decisions are at the level of investment or divestment in their different divisions. A
corporate strategy defines the scope to convert distinctive competencies into competitive
advantage with respect to the business, industries and markets in which a company will compete (Juslin and Hansen, 2003). Large forest industry companies consist of four levels—corporate, division, business unit, and functional unit (Figure 2.3).

![Diagram of diversified CFE structure]

Figure 2.3 Typical structure of a diversified CFE. (e.g., Michoacán and Guerrero, Mexico) Source: Bray and Merino-Pérez. 2002. The rise of community forestry in Mexico: History, Concepts, and Lessons learned from twenty-five years of community timber production.

In this thesis CFEs are mentioned as forestry divisions or business units. Business units range from community silviculture, extraction, transformation (where the factories are allocated), and channels of distribution such as ICOFOSA. In the case of the Ixtlan community, TIP Muebles representatives come from their Forestry Unit UNFOSTI. Similarly, each one of the three communities constituting ICOFOSA defines their representation in the Board of Members of TIP Muebles (Figure 2.4). ICOFOSA factories resemble business units and TIP Muebles represents the “company strategy” or “business strategy” (Juslin and Hansen, 2003).
When the unit managers and board members in ICOFOSA are considering what kind of products to offer and which customer to target; the Commission of Communal Goods considers in which divisions, industries, businesses or strategic business units to invest or divest. For example the Commission of Communal Goods can decide that next financial cycle will be oriented to support the role of the bottling water company and to reduce investment in the furniture industry given its recent poor performance (Israel Santiago, personal communication 2009).

In the core of the ICOFOSA business model there is continuous dilemma between the traditional organization and the efficiency required for a CFE to become competitive in the marketplace. Conflicts over decision management and control over community assets are common (Pedro Vidal, personal communication 2009).

In many CFEs, such as Textitlan (partner of ICOFOSA), there are managers that operate under the cargo system that bring free services called tequio to the business unit. This adds to the complexity in the decision-making process by making the management capabilities a responsibility of citizens within the community rather than a professional responsibility. Particularly for many communities in Oaxaca, the tequio is the social institution that expresses the interdependency among citizens to satisfy the collective needs. An example of tequio is construction and public building maintenance. The maintenance of forests and its watersheds are included in tequio. Typically, tequio is operationalized as non-paid work performed by the active individuals. The sindico is the person in charge of the tequio direction (Nader, 1998). Every comunero (common) has the obligation to work and has the right to decide the needs of the community. In Oaxaca, the tequio, as a model of social capital, has been legally recognized as a traditional right and used in association with contributions from the communities for infrastructure construction. Some case studies
about the *tequio* in Oaxaca have recognized that the communitarian participation can be up to 80%, while the federal resources make up the difference (Nader, 1998). Communitarian work is critical because without it, the infrastructure needs would be difficult to reach. However, much of the required management skills needs for the business units are not met due to the lack of expertise of the *communeros* (commons) in service.

Success in social and environmental terms can be measured by whether an action has helped to provide meaningful employment, generated supplementary incomes, built community pride and trust, contributed to democratic decision-making, increased environmental awareness, and provided forest health (Pete Taylor, personal communication, cited in Bray and Merino-Pérez 2002:65). Factors that contribute to CFEs success include the capacity of communities to create their own institutions and mechanisms able to represent their interests. One of those capacities is social capital, such as the level of organization, political participation, citizenship creation and direct representation in local issues. Other factors are their technical capacities to manage forest resources and the capacity to participate in markets by applying available information and networking within the community. In an early stage of CFE development almost all the financial support came from outside (Stauber, 2001). In theory, CFEs can generate significant new employment within the communities, fulfill functions of the government and invest in community enterprise assets (potable water, clinics, schools, public buildings and social service as medical care and old-age pensions) (Merino 1997, Alatorre 2000).

The social capital and levels of networking of the communities have achieved significant changes in their land tenure and consequently in the control over their natural resources. History has repeatedly shown that significant institutional change has the potential to happen as a result of collective work within social-movement organizations. Policy strategies have had some impact, but ultimately the collective pressure has had the greatest impact in quickly mobilizing these forces (Darder, 2002).

### 2.2.1 Social marketing and forest certification

“Deforestation is not a result of poverty; deforestation is a result of a decision to change land use because of the profit from other uses. The forest certification schemes are nowhere near helpful enough towards communities with small forest areas and small forest production” (Madrid, 2006).
Within the sustainable development realm, forest certification schemes were originally intended to stop tropical deforestation and enhance forest conservation; the mechanisms to generate alternative income thus were considered afterwards (Zuniga, personal communication 2009). For some NGO representatives in Mexico, forest certification was originally designed for large-scale forestry operations. It should not be considered the only answer to issues regarding sustainability and poverty but certainly is a possible option. Certification is a reliable way to show the market place that timber has been legally sourced. There are examples where certification presents clear benefits for local communities such as in Papua New Guinea, the country with the largest percentage of CFEs before Mexico, where FSC (Forest Stewardship Council) certification helped to maintain the community harvest below the annual allowable cut. Another example comes from Kenya, where the market has accepted a 10% premium for some certified forest products (IIED, 2006).

In 2006 the total area of FSC-certified forest in Mexico was 802,833 ha, of which 14% was tropical forest. This places Mexico second after Brazil in Latin America. Certification is concentrated in six out of 32 states (Figure 2.5) and its 46 certified operations are communally managed (Macqueen, 2005).

<table>
<thead>
<tr>
<th>States</th>
<th>Chihuahua</th>
<th>Durango</th>
<th>Michoacán</th>
<th>Guerrero</th>
<th>Oaxaca</th>
<th>Quintana Roo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of certifications</td>
<td>3</td>
<td>26</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>46</td>
</tr>
<tr>
<td>Area certified (ha)</td>
<td>173,069</td>
<td>346,552</td>
<td>6,487</td>
<td>14,784</td>
<td>137,649</td>
<td>124,291</td>
<td>802,833</td>
</tr>
</tbody>
</table>

Figure 2.5 Certified forest area under Community Forest Management in Mexico, six out of 32 states and its 46 certified operations are communally managed (Macqueen, 2005).

Forest certification, however, is not necessarily the right solution for all producers and decisions regarding certification should include a risk assessment (Levy, 2006 in IIED). Also, if some CFEs are unable to meet certification standards, and their product is not labeled as certified, it may be categorized along with other products as unfair or illegal, though it may not actually be the case.
In Mexico, the demand for FSC certified forest products is nearly nonexistent in the open market. National retailers and consumers of timber and furniture tend not to demand products with social and environmental credentials. Instead, the market is ruled roughly by species, price, and timber quality (Macqueen, 2008).

Economically, the certification process has been a benefit due to the fact that it was not originally developed for economic purposes, but rather conservation. It is estimated that the cost of certification is actually higher than its economic benefits (Alatorre, 2002). Taking into account the costs of annual verification and payment for installments of certification, the indirect costs such as administrative expenses, technical expenses and its supervision, and monitoring and contracts, the total cost can make certification unaffordable to forest management units (Alatorre, 2002). If the bureaucratic procedures of public forest policy and high costs of certification are making it difficult to maintain such certification, it is possible that this mechanism will be abandoned by the CFEs (Anta Fonseca, 2004; Alatorre, 2002).

Some CFEs made the decision to enter a certification scheme because they felt the international timber market is heading in that direction. ICOFOSA, like other CFEs, considered it as a preventive measure and as a way to avoid lack of compliance with market demands. In the first phase of implementation, which was within the first years of certification, the communities viewed certification as a way to improve value. Now, certification is becoming a political strategy within the market (Jesus Paz, personal communication 2009). In terms of access to international markets, the FSC certified timber producers, are still unable to add enough value to export sawnwood. From 2005 to 2007, only four communities that were registered in the Natural Resources Agency (SEMARNAT) applied for timber export permits (Mcqueen, 2008).

TIP Muebles was stated as an example of “awareness of FSC, because it sells certified community furniture and some of their products have COC (Chain-of-Custody) labels” (McQueen, 2008). However, TIP Muebles is unable to promote FSC certification labels because FSC corporate institutional image has not authorize them to do so (Adriana Castellanos, personal communication 2009). In addition, retailers are unable to promote the FSC vision and are not taking active leadership in educating the consumer as part of its strategic positioning to stimulate market consumption.
2.3 Community Forest Enterprises in Mexico

Those who are truly oppressed do not enjoy the freedom to fail, nor the luxury of experimenting.

Paulo Freire

Independent of the land tenure system of ejidos or comunidades, there are two types of CFEs depending on their business sophistication: community owners and rentistas (forest renters). In the communities with enterprises, the nursery, reforestation and complementary treatments are employment sources and provide the means to support families and enhance the commercial quality of the forest, as well as increase the future benefits for the community. In the rentistas communities, their forest stock is managed by a private company that pays for the extracted logs. Critiques about contractor companies responsible for forest treatments, include their interest to respond to the market needs rather than resource sustainability. For example, “contractor operations usually open roads that are not in condition for later use and have been perceived as one of the causes of increasing deforestation” (Exchange workshop, ASETECO 2002).

Small and Medium forest enterprises development

Small and Medium forest enterprises (SMEs) dominate forestry in developing countries. Increasingly, these enterprises are based on forests that are owned and controlled by communities themselves. Their impacts are variable and depend on the specific context but the prospects for greater forest stewardship and social equity have enormous potential. Special attention on their internal systems, external policy and market frameworks can improve the impacts and find ways of rewarding sustainable local forestry (IIED, 2006)

There is evidence that, in developing countries, SMEs can emerge and develop where tenure and policy frameworks allow them to exist legally and compete fairly within the market. Only a few tropical countries have had favorable conditions for a sufficient amount of time to allow for their forest development under common property (Molnar et al, 2007).

Small and medium-sized enterprises, including those owned by communities are widely known to represent the large majority of the global forest industry (Molnar et al, 2007). Rough extrapolations suggest that they represent 80-90% of enterprises and more than 50% of the employment in many forest sectors (Mcqueen, 2006). Worldwide, approximately 30 million of the 47 million permanent jobs in the formal industry are found
in small enterprises. Approximately, 140 million jobs exists in non-formal sector small enterprises (Mcqueen, 2006), most of which have fewer than 20 employees (Molnar et al, 2007). Its broad spectrum ranges from independent rural producers, partners to large industry, primary and secondary processors and service providers (Mcqueen, 2006). More than 130 billion dollars gross value added is produced by SMEs worldwide (Mcqueen, 2006).

Even if it is stated that environmental sustainability and people's opportunities are fundamental for development of society, the existence of revenue and profitability in a small scale community business is the basis for sustainability of social capital. The idea that development comes after breakfast, means that social and environmental responsibility is affordable over a marginal economic basis. This marginal basis can be traced by the business culture. Small enterprises, especially those owned by communities, could have potential to address the broader dimension of poverty by securing wealth, strengthening social networks, building entrepreneurial capacity and fostering environmental accountability at the local level by harvesting and processing timber (Francisco Chapela, personal communication 2009).

Wood production is the principal economic activity that promotes income generation and sustainable development by owners of Oaxaca’s forests (CSMSS, 2009). Timber harvesting of the forest contributes 10% of Gross Domestic Product of the state and generates approximately 40,000 jobs in 90% of the forestlands owned by communities. (CSMSS, 2009).

New mechanisms are being developed to stimulate forest communities and maintain the forests. Adding value through secondary manufacturing is one way to create the economic conditions capable of sustaining the social capital at the small business level (Antinori, 2005).

One problem affecting timber quality and the sustainability of its provision is not the forest harvesting but the change of land use including activities such as cultivation, livestock grazing, and plantations (ASETECO, 2002). Current public policies need to support the communities by promoting the industrial activities on a limited scale and shift from the model that advocate for primary raw material suppliers for the larger industries to vertically integrated value chains. The paternalism implicit in some public policies does not recognize the capacity of the communities to manage and benefit from their forests. In some cases,
this approach creates preferential treatment towards private enterprises. However, for many communities that lack information, training and follow-through, rentismo still represents the only viable alternative (ASETECO, 2002). The lack of political policies focused on employment creation is one cause of illegal logging that affects the natural resources and is responsible for the detrimental use of the land (ASETECO, 2002).

The imprecise estimation of community forests and community enterprises could be the result of the combination of a lack of a standardized register of timber harvest authorizations, and the lack of transparency and trust in the wood industry. It can also be related to the constantly changing public and fiscal policies in the sector. Indeed, the most recurrent data used to refer to communal-owned forest in Mexico states that 80% of forest lands in Mexico are under common property. This information was published without an empirical base since 1980 by the Geography, Statistics and Information National Institute (INEGI). The agency source does not differentiate the kinds of forest ecosystems, nor does it determine the number of owner communities, or the extension of those forests (Bray and Merino-Pérez, 2006).

Estimates indicate that more than 6,000 comunidades agrarias own approximately 40 million hectares of forest. In total, comunidades agrarias and ejidos are responsible for 8,500 common properties, with an estimated population of 12 million inhabitants (CONAFOR, 2007). No more than 12% are legally engaged in forest commercialization (J.M. Torres-Rojo, 2002 in Ross 2005). Mexico has the world’s largest number of CFEs oriented toward the commercial production of timber (Bray et al. 2003), with an estimate of CFEs reaching 479.

The current and available information does not isolate the number of CFEs from the forest communities existing in Mexico. The differences in estimated number of forest communities by different State and Federal sources regarding the number of forest communities in Mexico, varies from 7,000 to 9,047 (Bray and Merino-Pérez, 2006). Some of those communities are within small, degraded forest areas and it is difficult to identify which forest is being used to reach their economic potential. It is hard to distinguish between developed CFEs that practice forest management from communities that lack control. Thus, both types of community forest enterprises are included.

Of all the harvest authorizations in Mexico, 16 to 42% correspond to CFEs, with the remaining corresponding to private properties (Bray and Merino-Pérez, 2006). Based on
estimates, the total number of permits may be over 2,400 communities producing timber legally, well above existing values. Again, data varies from 584 to 1750 CFEs with harvest permits according to different sources (Bray and Merino-Pérez, 2006).

The tendency to operate illegally might be explained under the assumption of existing policy barriers, bureaucracy and forest management limitations for CFEs. In addition to the internal limitation of professionalization and organizational nature of every community, the external barriers are those over which the communities have little control.

Some of these external barriers are attributed to public management, and those related to the forestry sector. From the first we can derive, the trade liberalization policy, taxation policy and the public forest policy itself. Those barriers related to the forestry sector are the bank institutions policy, the purchase policy from industrial forestry and illegal logging (Forster and Argüelles, 2004). To exemplify this classification, a closer look at these barriers helps to explain the regulatory framework that shapes CFE national performance.

The trade liberalization policy has not been successful due to the high production costs associated with a well-managed framework. The wood industry cannot compete in equal conditions with imported wood from commercial plantations (Forster and Argüelles, 2004).

While the Sustainable Development Forestry law promotes forest conservation, it does not have fiscal incentives for CFEs managed land with conservation practices over less environmentally responsible enterprises. Also, the taxation regime prioritizes the extraction industry sector over the transformation industry by providing better incentives to the former and charging the latter (Alberto Jesús Belmonte, personal communication, 2009). An amendment to the Revenue Law in 2002 instilled a 50% charge on utilities to CFEs. This reform resulted in very critical responses to communities with integrated forests because their profit is included in the value resulting from primary and secondary processing. Although it helps them to create jobs, communities are abandoning sawmills due to the market’s downturn, as well as the taxation system.

The Mexican public forestry policy defines CFEs on the Sustainable Development Forestry Law LDFS Article 7 as “productive organizations of communities or ejidos with permanent forest areas under a forest management plan, for production, diversification and transformation, with agrarian and business capacities” According to Art. 30.I their goal is “to reach a sustainable use of the forest ecosystems as a permanent source of income for
its owners, providing a sufficient supply for the social, industrial and exports demand, while simultaneously promoting the productive capacity of ecosystems”. While Article 7 prioritizes the competitiveness of CFEs; the same law restricts the use of natural forests while giving incentive to private forest plantations. Most of the CFEs practice natural silviculture practices and do not manage forest plantations (Forster and Argüelles, 2004).

In terms of the bank institutions policy, most of the CFEs do not have a capital re-investment strategy, and the state bank credit risks only 10% of the loan capital to CFEs. Due to the lack of strategy, the culture of risk management is not high for the communities.

The industrial purchase policy demonstrates a high degree of distrust, the private companies prefer to go through intermediaries rather than deal directly with CFEs. In the national wood industry, the general perception suggests that community forest operations, “even those with sawmills, are not reliable partners, therefore, most prefer to deal with local intermediaries that can assure a continuous supply of timber” (McQueen et al 2008).

### 2.3.1 Overview of Mexico’s Forest Products Industry

Mexico’s annual domestic production of lumber is estimated at 9.6 million cubic meters, including illegally harvested temperate and tropical hardwoods and softwoods. Structural bottlenecks, limited funding for competitive policies and obsolete methods limit the expansion of domestic production (Orta, 2006). For 20 years, this timber production has been oriented towards the concrete form market segment. These forms are typically rented by poor businessmen (Forster and Argüelles, 2004).

Mexico’s forest industry has been under serious crisis for 20 years. The importation of forest products from Chile, Vietnam, China, U.S. and Canada has displaced some parts of the domestic market (Orta, 2006). Mexican trade balance within the forestry sector shows a deficit of 1.9 billion dollars; this difference is a market opportunity for local industries willing to earn market share (Forster and Argüelles, 2004). The competition is not limited to pulp and paper (a major cause of trade deficit); the importation of solid wood has increased. Companies that previously purchased timber from ejidos are enjoying better prices from Chilean plantations. One such case is that of Pinnely Universal in Durango that currently imports about 75 percent of its raw material requirements at a price 25 percent
lower than local timber. In those cheap supply conditions, it is very unlikely that industry will pay a premium price for local timber (Orta, 2006).

Moreover, it is unlikely that a consumer will be willing to pay the price of legal timber plus a surcharge when the alternative option of buying cheaper timber from illegal logging exists. It is difficult to pay a surcharge because during the last decade, most of the Mexican population has lost purchasing power (Orta, 2006).

In this scenario, ejidos are mostly producers of raw materials or commodities. The large majority of companies are not able to compete in larger markets because of their lack of technological and vertical integration capabilities. In the international arena, requirements are beyond the certification stamp. Volume, quality, opportunity, presentation, and credit are important purchase criteria that are often beyond the means of ejidos.

### 2.3.2 Oaxacan forest products industry

Oaxaca consists of 9.4 million hectares, made up of 570 municipalities located in 30 districts. It has a forest surface of 6.3 million hectares; of which, 6.1 million are mixture of forests and rainforests (Madrid, 2008). Its population of 3.5 million inhabitants accounts for 35% of the people above the age of five speaking an indigenous language in Mexico. The most frequent languages spoken by natives are Zapoteco, Mixteco, Mazateco and Mixe (INEGI, 2005).

Oaxaca is the only Mexican state producing important volumes of temperate as well as tropical woods (Forster and Argüelles, 2004). Claims have been made that communities manage their forests more sustainably than private enterprises, but until now there has been little evidence to support that assertion. Antinori’s (2005) research focused on the first large-scale comparative and quantitative survey-based study undertaken specifically in the CFM sector. Her case of 42 CFEs in Oaxaca was focused on issues such as transaction costs, contractual hazards, and vertical integration. The study demonstrated that CFEs appear to be profitable at all levels of integration and that “communities prefer to integrate forward to avoid contractual hazards with outside entities like private logging firms”. She also concluded that the common pool resources contribute to community welfare and that community ownership and control over production assures access to these benefits.

Particularly the Sierra Norte region in Oaxaca, where Mancomunados and Ixtlan are located; has one of the strongest models of community organization forestry in Mexico.
Forest-based activities are one of the main sources of employment for Oaxaca’s rural communities. An estimated 40,000 direct and indirect jobs in 137 forest communities provide benefits for about 450,000 people, and forest product sales help fund many social projects (Fonseca & Mitchell, 2005).

In Oaxaca, silviculture is not a primary source of income but the people holding these lands depend on their forests (INEGI, 2006). Oaxaca contributes 1.5% of the national GDP and is one of the poorest states of the country. Similar to the national pattern, 97% of Oaxacan forests are distributed in 280 ejidos or agrarian communities. Inside these communities, a small portion is privately owned, while others are communal lands managed by the Comisariado de Bienes Comunales (Zabin, 1993). The data available today indicate that there are between 232 (CCMSS, 2008) and 266 (CONAFOR, 2004) harvesting authorizations in the state of Oaxaca; 22 correspond to ejidos, 89 to comunidades, and 121 to private plots (Madrid, 2008).

Combining previous data, it can be concluded that the region with greater wood production in Oaxaca is the south mountain range Sierra Sur where Textitlan (a partner of ICOFOSA) is located (Figure 2.6). Textitlan having the lowest performance of the three communities, has the higher forest potential. In second place is the north mountain range where Ixtlan and Pueblos Mancomunados, also from ICOFOSA, are located.

![Forest agrarian nuclei authorized volume per m³. Source: Consejo Civil para la Silvicultura Sostenible based on SEMARNAT information 2007](image)

The most predominant species is pine, with about 755,698 m³ of standing volume. The
potential for Oak harvest includes 185,534 authorized m$^3$. Authorization for hardwoods species are approximately 27,952 m$^3$ and for tropical hardwoods 28,017 m$^3$. Of Oaxaca’s forest surface (6.3 million hectares), 164,759 are under management plans.

The market for sawnwood from Oaxaca is not limited to consumers within the state. A small relative volume of wood is transformed into finished products in Oaxaca. Oaxaca’s main secondary manufacturing market is in Mexico City. The competitiveness and quantity of the wood from Oaxaca depends on transportation costs, industrial plants, and location of final consumers (Zabin, 1992). Eighteen years ago communities could produce at 15% lower cost than the private companies due to their close proximity to the resources, in some cases lower transportation costs and low salaries paid to workers. In some cases, the cargo system and the citizen obligations still are used to cover administration costs (Zabin, 1992).

Wood derivatives and non-timber products are important when it comes to reducing the pressure on wood extraction by generating a side income for the family-based organizations. The balance between conservation of natural resources and good management of plantations are a concern to these communities, who understand the importance of maintaining them for future generations. However, they face a market largely dominated by price, which does not allow for extra expenses for land management.

### 2.3.3  ICOFOSA Company Profile

In July of 2006, Santiago Textitlán (Unidad Especializada de Aprovechamiento Forestal Comunal UEAFAC Zapoteca Cárdenas), Ixtlán de Juárez (Unidad Comunal Forestal y de Servicios UCFAS de Ixtlán de Juárez) and Pueblos Mancomunados (Unidad de Aprovechamiento Forestal de Pueblos Mancomunados UAFPC) integrated the forest products transformation of three zapoteco communities. The formed joint-venture Integradora Comunal Forestal S.A. (ICOFOSA) is using profits from the logging enterprise to diversify their community assets into non-timber forest activities. Some of these strategies of diversification include water bottling, ecotourism, and resin tapping, with a considerable degree of female participation in these latter activities (Secretaría del Medio Ambiente y Recursos Naturales, 2000; Bray and Merino, 2003).
The mission of ICOFOSA is “To enhance and increase the life quality of the stakeholder communities having the sustainable use of natural resources through productivity and competitiveness based on the humanism, equity and development values”. It has been a challenge for ICOFOSA managers to agree and transmit a common strategy to the company to lead into a market-orientated approach.

Its vision states that ICOFOSA is an organization of forest industrial communities, sustainable, productive and competitive in the region, and in the national and international level. ICOFOSA lacks operational capacity to following-up contracts. Weak distribution capacity has limited its performance in the local market, and its potential to reach a national or international basis, as stated on the vision. However, the three communities that integrate ICOFOSA since 2006 are contributing to development at a micro-regional scale. The diversification strategy of their forest management and vertically integrated industries to add value to their products, allow them to achieve a more sustainable management of their forest resources, and to benefit by offering income opportunities to the members of their community (Perez, 2007).

The joint-venture among these three zapoteco communities is still in the introductory phase and it may not be sustainable without government subsidies.

ICOFOSA has created some degree of international expectation through their retail joint venture that sells certified wood furniture (Argüelles in Macqueen, 2008). At least one of these communities has been labeled as a successful CFE case in the sense that it controls timber smuggling and invests in forest productivity. Standard features of governance such as vigorous, regular and well-attended community assemblies might place them free from significant corruption (Klooter, 1998).

ICOFOSA has a total of 2,234 beneficiaries communeros (commons) and 25 years of experience in commercialization of forest products, especially roundwood, sawnwood and dried lumber. It has been suggested that through the benefits of the forest management and marketing, it is possible to increase the income of communeros and their approximately 11,700 indirect family beneficiaries (Pérez, 2006). In September 2006, the governmental education institute of Oaxaca (Instituto Estatal de Educacion Publica de Oaxaca IEEPO) contracted ICOFOSA for a total of 1.2 million USD of school furniture. In the same month the communities decided to become retailer partners to commercialize the products of the three communities, through TIP Muebles. The integration promises access to
volume markets, making of informed decisions and stabilization of the region by gathering supplies and promoting stronger trade partners. The integration challenges the belief that although sustainable forestry is possible, it has rarely occurred on an industrial scale (Bowles et al.1998; Seymour & Hunter 1999). Because of this belief, community forestry initiatives have relied on government agencies and on local communities to achieve the goals of conservation and management while at the same time, giving economic opportunities for forest communities. The ICOFOSA integration model includes the creation of forest-based jobs in extraction and restoration, the harvest of timber and support of small value-added processing business of furniture, the development of environmental services, and the provision of opportunities for non-timber forest production.

In 2006 a needs assessment diagnostic for each of the three factories was implemented. The diagnostic identified a need to increase the quality and a consistent-base of production to allow the communities to have access to national markets. The organizational structure with functions, obligations and benefits for each community was captured in its operational plan.

Currently, the industrial area of ICOFOSA accounts for about 9,000 m$^2$. (It was 15,000 m$^2$ before the fire at the Mancomunados factory on December 13, 2008 and currently this area is under restoration). Their technological assets are 50.7 million pesos. The production capacity of three factories is 9,500 furniture pieces per month.

Furniture sold via TIP Muebles, includes home furniture (Figure 2.7), school furniture (Figure 2.8), office furniture (Figure 2.9), and doors.
Since 2006 Ixtlán and Pueblos Mancomunados have delivered a contract for 1.5 million USD to the Instituto Estatal de Educación Pública en Oaxaca (IEEPO). After the first contract, in August 2006 Ixtlán, Textitlán and Pueblos Mancomunados signed a second contract for one million USD.

Figure 2.7 TIP Muebles Home furniture line. Theses sets are largely supplied by Pueblos Mancomunados factory.

Figure 2.8 ICOFOSA wholesale school furniture line distributed to the State Education Agency IEEPO. Ixtlan specializes in school furniture and bedroom sets.
As a wholesale marketing strategy, the three communities have consolidated their production process in the school furniture production line (Figure 2.9) and continue supplying the government. However, there is a call to diversify customers due to the fact that the government purchases are seasonal (Manuel Garcia, personal communication 2009).

Certified wood has sometimes been a requisite for governmental purchases. Ixtlán (SW-FM/COC-147) and Santiago Textitlán (SW-FM/COC-165) certifications were accomplished through the Smartwood Program of Rainforest Alliance in Mexico. FSC guarantees the communities implement environmentally appropriate, socially beneficial and economically viable forest management. Pueblos Mancomunados, due to its internal land conflict, only has FSC Chain-of-Custody (COC) certification which allows them to orient their strategy to roundwood distribution from other certified communities. Although these communities have directly benefited economically from the certification system, the certification does not guarantee demand. The certifications rely mostly upon the institutional support and political presence of the government and on the context of similar organizations with potential to establish national networks of commercialization (Jesus Paz, personal communication 2009). Certification has been more of a moral recognition about good management and sustainability. In very exceptional cases, certification of forest management adds a preference, not a premium price in consumer decisions (Eric Hansen, personal communication 2008).
According to previous evaluations, by working together ICOFOSA communities share the advantages to be more competitive such as:

- Larger capacity and versatility of production
- Larger offer (diversification) and product mix
- Cost reduction in commercialization and promotion
- Cost reduction in logistics
- Scale-economies taking advantage of common supplies and purchases
- Practices of social enterprises and environmental responsibility
- Information and knowledge sharing.
- Increase of social capital and political presence

TIP Muebles has been supported in its start-up process by several organizations including the National Forestry Agency (CONAFOR), World Wildlife Fund (WWF)-Oaxaca Program, Mexican Civil Council for the Sustainable Silviculture (CCMSS), Integrate Fiduciary related to Agriculture (FIRA), Oaxaca State Government, Rainforest Alliance, Economy Board and US Agency for International Development (USAID).

For the three communities comprising ICOFOSA, diversification strategies include, distillate pine resin, sawmills, a furniture factory with exportation quality, ecotourism, bottled water, public transportation, technical assistance for the production of non-timber products, a communal store, a gas station, a communitarian radio station, a university, infrastructure, contributions to the municipality, an agricultural trusteeship and forest technical services (CONAFOR, 2007). i.e: in Ixtlán, the 120 jobs in the factory are part of the 200 jobs that the community has generated demonstrating the importance of CFEs as an economic driver for this community.

Earlier there were three TIP Muebles retailer locations in Oaxaca City, but currently there are only two. Total personnel for both retailer operations are 10 people divided in administrative and sales-force. ICOFOSA has defined a sales goal for TIP Muebles, but it has not been met in the last year. The sales goals for 2007: Ixtlán and Textitlan were $76,287 monthly; and for Pueblos Mancomundos included $106,802 monthly. In terms of their
overall demand, TIP Muebles constitutes around 20% to 35% of their Business Unit production, the rest is covered by the Government contract and other customers.

Customers

Apart from the school furniture contract with the State Government for each community; the market segment to which TIP Muebles retailers are reaching is from a middle-low socioeconomic status, between 25 to 45 years, young couples and young professionals.

Geographical area

Due to the fact that the Mexican wood industry has been facing vigorous import competition, much of the industry has switched from production to the distribution of substitutes, frequently not produced nationally. i.e. “It has become more of a business to distribute different materials than actually produce them, there is where the money is” (Jose Luis Lopez, CEO La Asuncion, personal communication, 2009). Oaxacan wood products manufacturers traditionally target the Mexico City market (Zabin, 1992).

Bottlenecks and inventory are both factors that decrease efficiency. After the 13th December fire, Pueblos Mancomunados is assembling and producing furniture in the second shift of Ixtlan factories. This fact demonstrates the solidarity ties between the management groups of both communities.

TIP Muebles is developing its logistics, but the process is still expensive. The process inefficiencies are mostly in logistics: transportation from sawmills to factories and from factories to furniture shops.

The vertically integrated process includes timber production, and in cases where shortage of supply it is provided from neighbor ejidos or plantations, the furniture production and its distribution through retail stores.
3. RESEARCH METHODS

No orderly system can make people less conflict prone or emotional (Lee & Field 2005).

3.1 Study design

The current adaptation of traditional practices to the modern and predominant trade system has created changes in the social structure of diverse communities around the world. A case study methodology has been used to understand how this transformation phenomena is taking place for CFEs in Mexico, as well as what drivers are directly affecting the decision-making process of the communities in the marketplace. A case study is a “strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon with its real life context using multiple sources of evidence” (Yin, 1981), or as later described an “empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009). Because of the need to understand this contemporary phenomenon in depth, the case of ICOFOSA was used to illustrate and understand important contextual conditions of what is considered to be one of the most successful CFEs in Mexico. The research took into consideration the holistic and relational characteristics of small group behavior, organizational and managerial processes, and the maturation of the CFE industry (Yin, 2009).

Some of the technical characteristics of case study research are:

- Ability to cope with the technically distinctive situations in which there will be many more variables of interest than data points
- Reliance on needs to converge data by triangulating sources of evidence

Case study research has at least four different applications. The main one is to explain the presumed causal links in real-life interventions that are not amenable to survey or an experimental strategy. Case study research provides relational explanation to contextual circumstances by responding to non-quantitative questions as how or what makes it happen. The second application is to describe an intervention and the real-life context in which it occurred. The third application is to illustrate certain topics within an evaluation,
again in a descriptive model. This is illustrated by the ICOFOSA case. Finally, the fourth application is to enlighten those situations in which the intervention being evaluated has no clear, single set of outcomes (Yin, 2009).

The research is designed as an embedded case study (Yin 2003). ICOFOSA business environment (the case) is observed through its three main stakeholder groups: Ixtlan, Textitlan and Pueblos Mancomunados (the embedded cases). The assumption that local involvement is an invaluable source of knowledge, experiences and perspectives and of real success of any development project is taken into account in this research.

According to the goals of this research, the questions posed were:

1) What makes it possible for CFEs such as ICOFOSA to integrate, and

2) Which are the opportunities and limitations for success.

3.2 Sample selection

3.2.1 Key informants sample selection

The main component of this study was qualitative interviews with 40 key informants. Key informants interviews were selected by handpick and snowball sampling methods. As nonprobabilistic methods, these techniques involve the selection of a sample with a particular purpose in mind (Yin, 2009). When handpicked, they were deliberately selected in a variety of roles such as expertise, experience, leadership in opinion or in the forest products industry, external observers, alternative experience in similar projects, insiders, ex-workers, and those knowledgeable about CFEs. While not likely to be representative, this strategy allows one to study intrinsically interesting cases, or enhancing learning by exploring the limits or boundaries of a situation or phenomenon (O’Leary, 2005). Snowball sampling involved building a sample through referrals, once the initial respondent was identified the researcher asked them to suggest others that meet the study criteria, each of those individuals were then asked for further recommendations. To try and maintain broad representation by using snowballing technique, a population profile from the literature was developed (Table 3.1). During the data collection, continuous assessment of representativeness was controlled by comparing the sample to the profile.
Table 3.1 Interview List (Listed by subgroup profiles). Participants from a variety of background and knowledgeable about CFEs were interviewed across the country.

<table>
<thead>
<tr>
<th>Subgroups profiles</th>
<th>Age (estimate)</th>
<th>Job/Background</th>
<th>Context of interview(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Delegation of Oaxaca</td>
<td>50</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Forest Agency employee</td>
<td>50</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Forest Agency employee</td>
<td>25</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td><strong>Consultants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROCYMAF business consultant</td>
<td>40</td>
<td>Coffee shop</td>
<td></td>
</tr>
<tr>
<td>Forestry NGO representative</td>
<td>35</td>
<td>Trade show</td>
<td></td>
</tr>
<tr>
<td>International NGO representative</td>
<td>35</td>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td>International NGO representative, engaged on the integration process since started</td>
<td>55</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Forestry NGO representative and environmental advocate</td>
<td>45</td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td>Forestry NGO representative and environmental advocate</td>
<td>50</td>
<td>Coffee shop</td>
<td></td>
</tr>
<tr>
<td>Natural resources NGO representative</td>
<td>45</td>
<td>Alternative practices fair</td>
<td></td>
</tr>
<tr>
<td><strong>NGOs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry NGO representative</td>
<td>35</td>
<td>Trade show</td>
<td></td>
</tr>
<tr>
<td>International NGO representative</td>
<td>25</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td><strong>Key customers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key customer for Ixtlan</td>
<td>55</td>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td><strong>Community administrators</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ex-foreman in the industry</td>
<td>30</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Community administration</td>
<td>25 and 30</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Community administration</td>
<td>45</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Community administration</td>
<td>60</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Community forest enterprise administration</td>
<td>35</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Community administration</td>
<td>45</td>
<td>Furniture factory</td>
<td></td>
</tr>
<tr>
<td><strong>ICOFOSA Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICOFOSA representatives, ex-manager and current manager</td>
<td>45, 55, 45 and 25</td>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td>ICOFOSA representative</td>
<td>40</td>
<td>Furniture factory</td>
<td></td>
</tr>
<tr>
<td>ICOFOSA exmanager</td>
<td>25</td>
<td>Furniture factory</td>
<td></td>
</tr>
<tr>
<td>ICOFOSA representative and manager</td>
<td>45</td>
<td>Phone</td>
<td></td>
</tr>
<tr>
<td><strong>Local academia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher assistant on CFEs</td>
<td>25</td>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Researcher on Development</td>
<td>60</td>
<td>His house</td>
<td></td>
</tr>
<tr>
<td>Researcher on Regional development</td>
<td>50</td>
<td>University</td>
<td></td>
</tr>
<tr>
<td>Independent researcher</td>
<td>60</td>
<td>Alternative practices fair</td>
<td></td>
</tr>
<tr>
<td>Marketing forest products faculty</td>
<td>50</td>
<td>Walking around the university</td>
<td></td>
</tr>
<tr>
<td><strong>International academia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher on public policy issues</td>
<td>70</td>
<td>Local library</td>
<td></td>
</tr>
<tr>
<td><strong>Private managers in the industry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer</td>
<td>45</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer</td>
<td>45</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer and exporter</td>
<td>35</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>FSC furniture manufacturer</td>
<td>45</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturing manager</td>
<td>45</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer</td>
<td>50</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Sawmwood broker</td>
<td>40</td>
<td>Walking around the trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer</td>
<td>45</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture high-end manufacturer</td>
<td>35</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture distributor</td>
<td>50</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer</td>
<td>50</td>
<td>Furniture trade show</td>
<td></td>
</tr>
<tr>
<td>Furniture manufacturer and local wholesaler</td>
<td>50</td>
<td>His business</td>
<td></td>
</tr>
<tr>
<td>Imports distributors</td>
<td>35</td>
<td>Furniture trade show</td>
<td></td>
</tr>
</tbody>
</table>
3.2.2 TIP Muebles clientele sample selection

A probabilistic method was used only for the TIP Muebles needs assessment evaluation. In this case every consumer of the TIP Muebles population had an equal chance of selection within a deliberate categorization scheme. Stratified sampling involves dividing the population, in this case TIP Muebles clientele, in various subgroups and taking random sample within each one (O’Leary, 2005). Three subgroups were determined for: 1) those who had only purchased once at TIP Muebles, 2) those had from three to 4 purchases and 3) those who had purchase more than $2,000 in furniture.

3.2.3 Observed competitors sample selection

After the needs assessment evaluation for TIP Muebles clientele was complete, the most frequent competitors were selected in a sample of 16 local furniture retailers. Instead of looking at the yellow pages or into a distributors list, the observed competitors were directly influencing TIP Muebles market share. Due to the fact the sample was selected based on respondent referrals, this sample technique also is classified as snowball sampling.

3.3 Data collection

One difference between a case study and an experiment is that the latter divorces a phenomenon from its context, attending only a few controlled variables. (Yin & Davis, 2007). Because phenomenon and context are not obviously distinguishable in real-life situations, the case study method was preferred for examining the ICOFOSA venture as a contemporary event, especially given that the relevant behaviors cannot be manipulated. The case study methodology uses techniques such as historical review and adds two sources of evidence not usually included in the historian’s repertoire: direct observations of the events being studied and interviews of the persons involved in the events (Yin, 2009).

As can be seen, case studies are useful where it is important to understand how the organizational and environmental context are having an impact on or influencing social processes. To do so, the researcher has to be skilled in a range of methods and be aware of when each may be most useful (Hartley, J. in Cassell, 2004).
3.3.1 Sources of evidence

The sources of evidence discussed here are the six most commonly used in case studies: documents, archival records, interviews, direct observation, participant-observation, and physical artifacts (Yin, 2009). The overriding principles to any data collection effort in case studies are of high relevance. Yin suggests that they include the use of a) multiple sources of evidence, evidence of two or more sources, converging in the same facts or findings, b) a case study database, a formal assembly of evidence distinct from the final case study report, and c) a chain of evidence, explicit among the questions asked, the data collected, and the conclusion drawn.

As an exploratory case study, the strategy to collect data consisted of the following multidimensional evaluations:

3.3.1.1 Previous literature review

To guide the case and its units of analysis or business units, secondary literature was reviewed. It included a review of recent literature of international and national institutions and consultancy reports. Literature from extended research projects on timber commercialization and trade (e.g. ITTO, IIED, CIFOR, UICN, FAO, ICRAF) was reviewed along with literature on community forests, land tenure, corporate social responsibility, and community conservation (UICN, CIFOR, WRI, Winrock, RECOFTC). Also, the case has secondary data regarding economic, financial, and social-cultural dimensions of the enterprise, and relationships between the enterprise and its macro-environment. Additional data were gathered from the administrative department and past consultancies sponsored by PROCYMAF and the Rainforest Alliance.

3.3.1.2 Six months field immersion in TIP Muebles operations

Because the case study specialty deals with a full variety of evidence: documents, artifacts, interviews and participant observations (Yin, 2009), a six month-field immersion was an invaluable source for observing the administrative department of TIP Muebles.
Participant Observation was the main technique employed during this six month period. Observation relies on the researcher’s ability to gather data through their senses— allowing researchers to document actual behavior rather than responses related to behavior. However, observations can be tainted by the researcher perception and thought systems (O’Leary, 2005). The thought system is unique to itself. It is formed by a process of thinking that depends on input: family, personal background, circumstances, mood level and many factors play roles in influencing the researcher thought system. The combinations are endless and impossible to duplicate between individuals. The observation process is sometimes treated casually, but is a method that needs to be treated as rigorously as any other.

The researcher assumed the functional role of the Marketing Assistant position in the company to actually participate in the phenomenon being studied. The ICOFOSA decision-making process by the community and its scope of action was observed during numerous informal conversations and board and staff meetings. The participant observation provided the researcher an unusual opportunity to collect data, the most notable was to gain access to events and observe relationships that otherwise were inaccessible. The possibility to perceive reality from the viewpoint of someone inside the case study rather than external to it was invaluable. The trade-offs of this source of evidence are described in the limitations section.

Direct observation involved observations during meetings to assess certain types of behaviors (Yin, 2009) regarding the decision making process of the board and the company staff. The way workers communicate, the conditions of reciprocity, the values underlying non-spoken rules and actions were all clues that provided additional information for understanding what makes it possible for these heterogeneous communities to integrate.

The process of observation included planning, observing, recording, reflecting, and authenticating the marketing strategies, structures and function development of TIP Muebles. To observe the decision-making process in the collective management model, direct observation of a seasonal promotion campaign strategy “Disfruta el bosque en tu hogar” (Enjoy the forest at home) (Figure 3.1) and its outcomes (pilot changes in branding strategies, promotional participation on the local market and trade shows) were monitored.
To measure the team participation in the business operations; a sales workshop called “Taller de comercializacion de muebles de Madera certificada” (Marketing of certified wood furniture) was provided to the TIP Muebles sales-force. Because the researcher was in a situation alongside target participants, aiming to become an accepted member of the participant community, she assessed needs of the sales force and offered a workshop as a result of such evaluation. TIP Muebles administrative team was interested in a basic design workshop. The workshop called “Herramientas basicas para la manipulacion de graficos” (Basic tools of graphics manipulation including Corel Draw, Photoshop and Illustrator) was offered in 4 weekends by an outsourced designer.

This observation helped to evaluate the personnel capabilities and dynamics within the company and also to better qualify the capacities of its administrative and sales team for the local market.

Techniques that do not involve direct elicitation of data from research subjects are known as Unobtrusive methods (Webb, 2000). The aim is to triangulate interviews through additional and existing data sources:

- Documents: Previous participation of ICOFOSA in the market was monitored through this method. Examination of materials such as: official data and records, corporate data: sales reports, consultancy reports, media, forest program diagnostics, previous market research reports; ongoing information and worker documented perceptions. Also, institutional letters, agendas, minutes, administrative records, evaluations from the company, and media coverage were all part of the potential documentation.
Some documents were available through the company files, others through internet searches. Yin suggests that documents should not be accepted as literal recordings of events that have taken place, instead they need to be corroborated and augment by evidence from other sources.

- **Archival records:** Budgets were analyzed along with statistical data available by federal, state or local government from SEMARNAT and CONAFOR and previous survey data collected about TIP Muebles’ consumers.

- **Physical artifacts:** This source of evidence was used to corroborate with the results of the interviews. The most common were the examples of defective furniture such as cracks, splits, twisted or any other type of wood-related problems, to understand the current situation of their product. In certain workshops, some final products were collected as evidence about the impact on the staff’s abilities.

- **Direct resources for information research** were used, such as observation, reports and diagnostics. Reports documenting previous participation of ICOFOSA in the market were monitored during the data collection process.

In some cases, observations were so relevant that a photograph was included to better understand the dimensions and the context of the TIP Muebles phenomena.

**Real world-insight:** To evaluate the local market environment consisting of 1) assessment of clientele needs, and 2) a competitor retailer observation (see first line in Table 3.2).

The researcher needed to develop trust and a sense of reciprocity with the TIP Muebles team and in order to get it, an additional component of the study (evaluation of TIP Muebles clientele) was included. Also assessing the needs of consumers and observation of local competitors resulted in providing information to validate the preliminary observations regarding their decision-making process.

- a) The evaluation of clientele needs was implemented to illustrate the significant aspects of customer behavior that managers should consider. This opens a window for further research on the opportunities for this company (See Appendix B and C).

- b) *Observation of local competitors* was designed but unsuccessfully completed (only 6 out of 16) due to budget limitations (See Appendix D).
c) Needs assessment of TIP Muebles’ clientele was conducted with 29 of the company’s end consumers and 6 local competitors in their retailing operations.

This small-scale market research based on observation and data collection in the field was completed in order to observe and analyze the dynamics of the decision-making process in the company. In this section of the participant observation, the marketing team was intended to be central for a participatory approach. The aim was to involve them by formulating field-based proposals and the core of a “learning by doing” process. However, to some degree, the lack of team development, the urgent sense of the organization management and its small structure did not allow it. The evaluation of TIP Muebles clientele was reported in a results presentation to the Administrative Council at the end of the internship.

3.3.1.3 Key informant interviews

As an invaluable source of information in real phenomena, key informants were an invaluable source to confirm data or as a primary source of data in its own right (O’Leary, 2005). The process to establish contact with key informants was 1) to identify potential informants, 2) to confirm the status of those identified, and 3) negotiate the potential informant agendas. With a total of 40 key informants, 11 correspond specifically to manufacturers and 29 to key informants across the country in a broad range of groups including: government employees, consultants, NGOs, customers, members of the communities, management positions in ICOFOSA-TIP Muebles, local and international academics, private managers in Mexico, industry brokers and ICOFOSA end-users and competitors (Table 3.2).
Table 3.2 Strategy designed to collect primary data for Case Study

<table>
<thead>
<tr>
<th>Area</th>
<th>Sample</th>
<th>Targeting</th>
<th>4 Protocols</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>a) Assesment of clientele</td>
<td>Needs assessment 29 company's end consumers</td>
<td>1. Focus group, <em>Cabra diseño</em> adapted questionnaire (Appendix B and C)</td>
</tr>
<tr>
<td></td>
<td>b) Competitors observation</td>
<td>6 retailer operations</td>
<td>2. Observational indicators (Appendix D)</td>
</tr>
<tr>
<td>Regional</td>
<td>c) Manufacturers in trade shows</td>
<td>11 manufacturers, private managers in Mexico, wholesalers, and industry brokers.</td>
<td>3. Open interviews and key informants interview (Adapted from IIED 2009) (Appendix A)</td>
</tr>
<tr>
<td>Across the country</td>
<td>d) Key informants</td>
<td>29 government players, consultants, NGOs, customers, members of the communities, management positions in the three factories and in TIP Muebles, local and international academics.</td>
<td>4. Key informants semistructured interview guide (See Sample selection section 3.b.i).</td>
</tr>
</tbody>
</table>

### 3.3.2 Protocol

The protocol to address 11 furniture manufacturers regarding their demand for CFEs forest products (Appendix A) was used to open semi-structured conversations with the different key informants during a national trade show in Mexico City and an international show in Guadalajara. The protocol was adapted from IIED Small and Medium Forestry Enterprise methodology. This British initiative is aimed to research industrial demand as mechanism for bringing together forest certification and fair trade.

For the 29 key informants knowledgeable about CFEs in general, or ICOFOSA in particular, the following semi-structured protocol was used:
3.3.2.1 Key Informants Semistructured Conversation Guide

1. What do you believe are the buyer perceptions of certified furniture?
2. At which level of development do you consider the community forest enterprises?
3. What is the potential for companies such as ICOFOSA in the market and suggestions for marketing strategies?
4. Which challenges and limitations for its success do you see?
5. What lessons have been learned about ICOFOSA as a Community Forest Enterprise in the market?

The interviews were guided conversations rather than structured queries, in other words, although a consistent line of inquiry was pursued, the actual stream of questions in the case study was fluid rather than rigid. A semi-structured protocol was aimed to result in, in-depth interviews. The role of informants was not to be respondents, but rather provide insights that initiated access to corroboratory or contrary sources of evidence (Yin, 2009). The researcher was cautious of the interpersonal subtle influence of her presence as an outsider.

During the interviews two priorities include, 1) following the line of inquiry dictated by the protocol, and 2) asking conversational questions in an unbiased manner, particularly about the interviewee interest and opinions (Yin, 2009). In some instances interview insights were used for further inquiry.

3.4 Data analysis

The analytical procedures for generalizing from empirical data where little systematic research has been conducted before are generated through a systematic process of induction (Strauss, 1990). The purpose of this section is to describe how the data were examined, categorized, tested, and how the evidence was recombined (Yin, 2009). Based on this analytic strategy empirical conclusions were drawn.

Based on an empirical perspective, data collection and analysis are not separate activities but emerge at the same time (Strauss, 1987). Analysis was present throughout the interviews themselves in the form of making notes during and after the interviews. The 40 Key Informant interviews were transcribed from audio recording and analyzed.

Based on the memo contradictions between interviews and documents and observations during data collection, more data were collected and analyzed. Interview transcriptions
were organized in a database using the computer-assisted tool QSR NVivo 7 to manipulate the information.

To organize and prioritize data, Yin describes five specific techniques for analysis of case studies: pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis. For the purpose of this analysis, pattern matching (or axial coding), explanation building (or selective coding), and cross-case synthesis (from different sources) were used. For a more detailed explanation of the coding process, Strauss (1987) offers an analytical framework for collecting and analyzing data. The process of grouping data into conceptual categories is called coding. (Figure 3.2) The coding scheme proceeded in three steps: open coding, axial coding and selective coding or story line generation.

![Coding Text](image)

Figure 3.2 The Coding Process for Case Study. Note that the higher the level, the higher the abstraction and the relations addressed between previous codes. Case study workshop, 2009. John C. Bliss, Oregon State University.

The open coding refers to the initial process of breaking down, examining, comparing, conceptualizing, and categorizing data. The first step in open coding required reading each page from the interview transcriptions, notes and written documents. Labels for words, sentences, and paragraphs were generated in order to conceptualize the perceptions and experiences of ICOFOSA key informants.
The overall sequence of data analysis is outlined in Figure 3.3. The number of categories was selected according to pattern matching and its frequency but mainly for its relevance and because of the need to narrow the analysis to a manageable size.

![Diagram of data analysis process](image)

Figure 3.3 ICOFOSA’s case study data-analysis design. The categories were selected according to frequency and relevance for the aims of research.

Open coding and its creation of category names was an evolutionary process. As more transcriptions were read and analyzed, the categories became more concise and patterns began to emerge. The labeling process began as an arbitrary process, but transformed into a systematic comparative analysis that generated more specific justifiable themes at the end of the process (Strauss, 1987).

**Axial coding**

Once thematic and analytical codes were assigned to paragraphs or sentences (conceptualizing), they were combined and modified with other codes in a repetitive process (categorizing). Defined dimensions of the categories (open coding) were established and axial coding further constructed the text. Axial coding consists of specifying the context and conditions of the categories, the way people respond to it, the consequences of those strategies, and their relationships to each other. It is a synthesis that systematically puts the text back together after open coding (Cheng, 1999). In this project, axial coding connected the perceptions and experiences of the 40 key informants to the broader process occurring in the CFEs integration phenomena.

Once the 92 open coding labels (Appendix E) generated from interviews were conceptually grouped, 10 families were chosen to look for pattern matching or axial coding.

1. Adaptation in decision making process
2. CFEs development stage
3. FSC inclinations
4. Effects of land ownership
5. Limitations
6. Market strategies
7. Opportunities
8. Potential ICOFOSA of success
9. Quality standards
10. Social capital

During the process, related topics were categorized using the pattern matching technique (Yin, 2009). Pattern matching logic compares the actual pattern found during the data collection with a predicted one. If the patterns coincide, the results can help strengthen internal validity.

To enhance construct validity and increase causal inferences from the informant’s insights, the predicted overall pattern of outcomes (families) was related to the initial topics indicated in the interview protocol (Table 3.3).

Table 3.3 Construct Validity. Relationship between initial interview protocol and axial coding.

<table>
<thead>
<tr>
<th>Interview protocol</th>
<th>Families in axial coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key informants semistructured conversations guide (Adapted from Mcqueen et al, 2004)</td>
<td></td>
</tr>
<tr>
<td>1. Which do you think are the buyer perceptions of certified furniture?</td>
<td>1. Adaptation in decision making process</td>
</tr>
<tr>
<td>2. At which level of development do you consider the community forest enterprises being?</td>
<td>2. FSC inclinations</td>
</tr>
<tr>
<td>3. Which is the potential for companies such as ICOFOSA in the market and suggestions for marketing strategies?</td>
<td>3. CFEs development stage</td>
</tr>
<tr>
<td>4. Which challenges and limitations for it success do you see?</td>
<td>4. Effects of land ownership</td>
</tr>
<tr>
<td>5. Which are the lessons learned about ICOFOSA as a Community Forest Enterprise in the market?</td>
<td>5. Potential ICOFOSA</td>
</tr>
<tr>
<td></td>
<td>6. Opportunities</td>
</tr>
<tr>
<td></td>
<td>7. Market strategies</td>
</tr>
<tr>
<td></td>
<td>8. Limitations</td>
</tr>
<tr>
<td></td>
<td>9. Social capital</td>
</tr>
<tr>
<td></td>
<td>10. Lessons learned</td>
</tr>
</tbody>
</table>
While conducting pattern matching of predicted families, more frequency was found in other categories, and its relevance in connection to the main families was established.

As certain patterns were produced and more complex categories or groups of codes were built (Yin 2009), rival explanations and contrasting positions among interviewees offered threats to certain predicted assumptions. The most relevant groups were selected and ranked into families according to their sources’ frequency.

Instead of single words of open coding, axial coding generated more detailed statements and relationships that provide the contextual conditions, properties, and dimensions of a particular category in relation to a range of social consequences (Strauss, 1990). In sum, axial codes (Table 3.4) were derived from Open Codes (Appendix E) and were grouped in nine families (Table 3.4): 1. Land ownership, 2. Marketing strategies, 3. Bridging social capital, 4. Public Forest Policy, 5. Management capabilities, 6. Low competitiveness, 7. Bonding social capital, 8. Public Forest Policy, and 9. Competition. Each family related to its intrinsic or extrinsic nature and later whether it was perceived as an opportunity or limitation. Intrinsic nature is referred to those under ICOFOSA control and extrinsic to those related with the business environment as well as with the regulatory framework when CFEs have little or no control.

Table 3.4 Axial code derived from Open Code and organized in nine families. The families show the status before running the second or reliability round.

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Intrinsic</th>
<th>Extrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Land ownership</td>
<td>4. Public Forest Policy</td>
</tr>
<tr>
<td></td>
<td>2. Marketing strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Bridging social capital</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limitations</th>
<th>Intrinsic</th>
<th>Extrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5. Management capabilities</td>
<td>8. Public Forest Policy</td>
</tr>
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<td></td>
<td>7. Bonding social capital</td>
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</tbody>
</table>

**Selective coding**

The integration of Axial Coding into “core categories” is the final step in the coding process, called selective coding. This selective process denotes a level of induction that indicates the complexity of social phenomena (Cheng, 1999). The selective coding stage is basically a theorizing process where the data, categories, and families are compared to theoretical perspectives (Cheng, 1999) of collective action such as the group decision-making process, innovation systems, social capital, collaboration, and social dilemmas.
Since the purpose of this study is to understand the factors impacting forest communities integration process, the following step was to create a hierarchical coding system by integrating families. An axial code relates to a family code and the latter simultaneously to a theme denoting higher levels of abstraction or more organizational capacity (Strauss, 1990). Contrasting and relating positions based on theory were identified. The use of rival explanations (Figure 3.4) provides a good example of pattern matching for independent variables (Yin, 2009).

![Diagram of the coding system]

**Figure 3.4 Example of derivation from an axial coding statement from open coding label into families of rival explanations. *Axial coding comes from Table 3.5.**

The original interviews and coding schemes were re-analyzed to determine how closely the data corresponded with six themes. It was identified that in some cases, the new themes had independent relations with information from the Open coding.
To increase validity and harmonizing themes (Table 3.5), a second round of data analysis across the entire sample was conducted based on new themes:

Table 3.5 Axial coding families grouped in four primary themes. Each family describes a different pattern of rival or relational events.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Opportunities (families)</th>
<th>Limitations (families)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>social capital</td>
<td>human resources</td>
</tr>
<tr>
<td></td>
<td>8. collaboration</td>
<td>4. business thinking</td>
</tr>
<tr>
<td></td>
<td>24. ejidos vs privates</td>
<td>15. dedication</td>
</tr>
<tr>
<td></td>
<td>26. exchange to learn</td>
<td>36. human resources</td>
</tr>
<tr>
<td></td>
<td>35. genesis linked to appropriation</td>
<td>57. ignorance</td>
</tr>
<tr>
<td></td>
<td>40. industrial purchasing practices</td>
<td>46. lack of leadership</td>
</tr>
<tr>
<td></td>
<td>42. institutional support</td>
<td>50. personnel limitations</td>
</tr>
<tr>
<td></td>
<td>43. intermediaries</td>
<td>59. operative structure</td>
</tr>
<tr>
<td></td>
<td>44. internal constraints</td>
<td>73. sales force</td>
</tr>
<tr>
<td></td>
<td>mentality</td>
<td>85. training</td>
</tr>
<tr>
<td></td>
<td>61. organization</td>
<td>92. work for results</td>
</tr>
<tr>
<td></td>
<td>64. political visibility</td>
<td></td>
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<td></td>
<td>social capital</td>
<td></td>
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<tr>
<td></td>
<td>78. social responsibility with employees</td>
<td></td>
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<td></td>
<td>86. transparency</td>
<td></td>
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<tr>
<td></td>
<td>87. trust</td>
<td></td>
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<tr>
<td></td>
<td>88. trust ICOFOSA</td>
<td></td>
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<tr>
<td></td>
<td>89. usos y costumbres</td>
<td></td>
</tr>
<tr>
<td>Organizational orientation</td>
<td>adaptation/innovation in decision making process</td>
<td>dilemma tradition vs. efficiency</td>
</tr>
<tr>
<td></td>
<td>1. adaptation in decision making process</td>
<td>6. centralized decisions to avoid risk</td>
</tr>
<tr>
<td></td>
<td>2. appropriation</td>
<td>19. dilemma tradition vs effectiveness</td>
</tr>
<tr>
<td></td>
<td>79. successful cases</td>
<td>23. effectiveness</td>
</tr>
<tr>
<td></td>
<td>80. success indicators</td>
<td>72. risk management</td>
</tr>
<tr>
<td></td>
<td>81. supply provision</td>
<td>77. challenges</td>
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<td></td>
<td>31. forest sustainability</td>
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<tr>
<td></td>
<td></td>
<td>45. lack of a linear vision</td>
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<tr>
<td></td>
<td></td>
<td>76. social benefits</td>
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<tr>
<td>Competitiveness</td>
<td>Improvement of internal systems (facts)</td>
<td>regulatory framework oriented to forest conservation</td>
</tr>
<tr>
<td></td>
<td>13. production costs</td>
<td>6. CFEs current stage of development</td>
</tr>
<tr>
<td></td>
<td>16. delivery</td>
<td>9. imports competition</td>
</tr>
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<td></td>
<td>17. design</td>
<td>27. exchange rates</td>
</tr>
<tr>
<td></td>
<td>18. design center</td>
<td>28. financial sustainability</td>
</tr>
<tr>
<td></td>
<td>41. innovation in production</td>
<td>29. fiscal policy</td>
</tr>
<tr>
<td></td>
<td>58. no grading</td>
<td>30. forest management</td>
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<td></td>
<td>66. price</td>
<td>32. forestry public policy</td>
</tr>
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<td></td>
<td>67. product</td>
<td>33. FSC</td>
</tr>
<tr>
<td></td>
<td>68. productive capacity</td>
<td>38. illegal logging</td>
</tr>
<tr>
<td></td>
<td>69. productive chains vertical integration</td>
<td>57. narrow brands trend</td>
</tr>
<tr>
<td></td>
<td>71. quality standards</td>
<td>63. forestry plantations</td>
</tr>
<tr>
<td></td>
<td>75. wood drying</td>
<td>84. trade liberalization policy</td>
</tr>
<tr>
<td></td>
<td>82. technology training</td>
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</tbody>
</table>

Finally, the second round of data analysis helped to unify criteria and to increase the study reliability.
3.5 Validity and Reliability

Because research design is supposed to represent a logical set of statements, the quality of any given design can be judged according to certain logical tests. Concepts that have been offered for these tests include trustworthiness, credibility, confirmability, and data dependability (US Government Accountability Office, 1990; Yin, 2009). Four tests have been identified to establish the quality of such empirical social research. The research must demonstrate construct validity, internal validity, external validity and reliability. Because a case study is one form of social science research, the four tests are relevant for its methods.

**Construct Validity/Internal Validity/Internal Generalizability:**

The explanatory case study should be an accurate and complete rendition of the features and ‘facts’ of the case. There are possibilities for alternative explanations from which appears the most congruent with the facts. Then, there should be a chain of evidence which allows the reader of the case study ‘to follow the derivations of the evidence from initial research to ultimate case conclusions’ and vice versa (Cassell, 2004).

Yin (2009), suggests that there are three available tactics to increase construct validity when doing case studies (see Table 3.6). The first is the use of *multiple sources of evidence*, to establish a *chain of evidence* or to *have the draft study report reviewed by key informants*. The final tactic is to identify the correct operational measures for the concepts being studied (Yin, 2009).

The use of multiple sources of evidence in case studies allows the investigator to address a broader range of historical and behavioral issues. The most important advantage of using multiple sources of evidence is the development of converging lines of inquiry, a process of triangulation and corroboration (Yin, 2009).

As explained before, the validity of this case study relies on field observations, interviews of 40 key informants and review of historical accounts, public records, administration files and news articles, all triangulating the same set of questions.

The internal validity test seeks to establish a causal relationship, whereby certain conditions are believed to lead to other conditions, as distinguished from spurious relationships (Yin, 2009). The internal validity is only used for explanatory or causal studies and *not for*
descriptive or exploratory studies such as this. This test was substituted by *Internal generalizability* which is a major concern in qualitative research (Maxwell, 2005), particularly if relying only on interview data which may be influenced by observer presence (Haberman, 2002). By collecting other forms of data (participant observation) supporting or disconfirming evidence of the interview data can be done. In general, the observer must try to focus on all relationships, roles and interactions and not particular individuals and interactions within the group or setting. This is why players from outside the case such as companies, NGOs, government, private industry and academics have also been interviewed. During the field research period, a monthly report of activities was submitted to CONAFOR Forest Culture Department explaining updates about the research.

*External validity:*

To determine whether the study’s findings are generalized beyond the immediate case, it should be carefully considered that there is a difference in perspective between a statistical and a qualitative approach about generalization from case studies.

For a quantitative researcher, statistical generalization is achieved through such techniques as sample size, sampling frame and so on. If the sample is correctly drawn, then the results are deemed to be applicable (generalizable) to the specific population. However it is a mistake to base the robustness of case studies in this approach, as there will never be enough cases, even in a multiple cases research design (Goom in Cassell, 2004).

Qualitative research then, does not need to be externally generalized (beyond group or setting) in the positivistic sense (where findings can be generalized to the larger population) because the population samples are not randomized (Maxwell, 2005). The external validity in case studies should not be confused with the situation of survey research, in which a sample is intended to generalize to a larger universe. This analogy to samples and universes is incorrect when dealing with case studies. Survey research relies on statistical generalization, whereas case studies (as with experiments) rely on analytic generalization (Yin, 2009). The detailed examination of processes in context can reveal process which can be proposed as general to CFEs or as specific to ICOFOSA. The detailed knowledge of ICOFOSA and especially the knowledge about its integration process, can help to specify the conditions under which the behavior can be expected to occur. In other words, the generalization is about theoretical propositions not about populations (Cassell, 2004).
The basis of the generalization is not primarily about the typicality of the organization, a qualitative study is often describing an extreme or ideal case (TIP Muebles has been chosen deliberately to be untypical in order to bring to the surface processes hidden in more usual settings). Rather, the discussion is about the existence of particular process, which may influence behaviors and actions in the organization (Cassell, 2004).

However, theory developed from a qualitative study can be externally generalizable to other cases, and in this particular example, to provide insight regarding the business environment for CFEs regarding the fact that all of them deal with the same regulation structure of public forest policy. Another way a qualitative study can be generalized is from the respondents’ perspective. In some cases the respondents were asked to what extent their situation was similar to other communities. However, this was not the aim of the study and was not pursued as a systematic goal.

Generalizing from the case study using existing literature to assess the extent of generalizable findings is important. While more than one case study can increase confidence in findings by enabling cross-checking and comparison; even a single case can be the basis of generalizing, and it may later be tested through replication or additional studies (Cassell, 2004). A theory must be tested by replicating the findings in a second or even a third case, where the theory has specified the same results should occur (Yin, 2009). The International Institute for Environment and Development (IIED) has been developing the key informants’ methodology for Small and Medium Forest Companies in different developing countries with community forest initiatives. Out of this research, there is enough information to fill this gap. This case study might be generalized to the extent that the replicates share the patterns described in the small and medium size enterprises section of this thesis and the methodology matches that used by IIED.

**Reliability:**

The objective of the reliability test is to ensure that if the same case study was repeated, the later investigator would arrive at the same findings and conclusions. There are two specific tactics to deal with reliability in the case study method. The first one is the use of a case study protocol to deal with the documentation problem in detail and the development of a case study database. During this case study, both relevant procedures have been documented. Feedback to enhance internal validity and reliability was provided at each step of the process. According to the design of this case and based on the previous discussion, the tactics highlighted in bold in Table 3.6 are accountable in this research.
Table 3.6 Case study tactics for Design tests (Yin, 2009). Informant review, logic methods and replication logic were the only techniques not used in this case study.

<table>
<thead>
<tr>
<th>Test</th>
<th>Case study tactic</th>
</tr>
</thead>
</table>
| Construct validity  | • Multiple data sources  
                    | • Chain of evidence  
                    | • Informant review |
| Internal validity   | • Pattern matching  
                    | • Rival explanations  
                    | • Logic models     |
| External validity   | • Theory – base (single cases)  
                    | • Replication logic (multiple cases)                 |
| Reliability         | • Case study protocol  
                    | • Database                                               |

3.6 Limitations.

A common procedure to increase reliability of observational evidence is to have more than one observer making an observation, whether formal or casual. Thus, this procedure was limited because the research was conducted by just one person.

The major problem with participant observation was the potential bias produced during the data collection process. At times, the researcher had to assume positions or roles that implied support rather than remain an observer of the phenomena. Thus, as Yin (2000) observes, the participant-observer may not have sufficient time to take notes or to raise questions about different events, as a true observer might. Also, because the researcher had to stay in TIP Muebles administration most of the time, it is possible that important events may have been overlooked in the factories, communities, or distribution channels of the company.

As Putman (2000) accurately refers, the challenge to studying evolving social phenomena is the limitation to go to the past to take the evidence we would ideally want. Thus, to explore how TIP Muebles performs, inferences from the available evidence have to be done. Therefore, to avoid the situation where the cord of evidence has only a single strand, as a journalist, prudence follows a two source rule was used: Never report anything unless at least two independent sources confirm it. For reporting the results, the researcher followed the same maxim. Nearly every major generalization rests on more than one body of
independent evidence, and where found divergent resources from credible sources, disparity will be noted as well.

Finally, even when this is an embedded case study formed by three Units of analysis that correspond to Ixtlan, Textitlan and Pueblos Mancomunados, the case is analyzed as one single integration process.

3.6.1 Researcher bias

Known biases include the researcher’s belief that under certain conditions of organizational and institutional support, CFEs are a legitimate, successful method of forest management and sustainability. Every CFE is different and competitiveness’ evaluation may require a different approach. The researcher believes that fully engaged managers from each community know the best opportunities and limitations for their specific community. The communities are involved in a learning process which has differing rates of improvement. The researcher calls those rates ethno-rythms and are explained to a large extent by the way history has shaped their generations, learned behaviors, and cultural memory. As an attempt to identify bias in the field, notes were used by including in some cases thoughts and emotional reactions to circumstances. Maxwell (2005) points out that researcher’s emotions can indicate potential bias. The Forest Business Solutions Group from Oregon State University, colleagues not associated with this study, was relied upon to help identify possible bias on previous drafts. Like any impartial office court, the researcher has a professional obligation to present all relevant evidence founded, exculpatory as well as incriminating (Putman, 2000).

4. RESULTS

“Forestry is not about trees, it is about people” Jack Westoby. Former director of the UN Food and Agriculture Organization’s forestry department and once a proponent of large-scale forestry.

Challenging the notion that Oaxaca has more possibilities to survive as an extraction economy rather than manufacturing their own products (Zabin, 1992), ICOFOSA offers a model not only for vertical integration, but also of cooperation among different communities toward a social benefit for their people. ICOFOSA is a unique case of communitarian organization that even with constraints has developed its structure sufficiently to remain functional. Success factors include the existence of a social capital
network, separation between agrarian conflicts from the management and administration, few ethnic conflicts and profitable manufacturing.

The members and observers of ICOFOSA have diverse opinions and experiences regarding business development and assistance programs to increase competitiveness of the forest products industry in Mexico. This section reveals insights regarding the conditions that make it possible for a company such as ICOFOSA to reach a certain level of integration in the context of a fragmented industry. Also, this section describes the main opportunities and barriers that interviewees see facing the wood products industry and their suggestions for improvement. Lessons learned from this experience can potentially be used by other companies with similar willingness and conditions if they wish to integrate. The informants’ insights are then integrated into recommendations for policy and business development. Concerns such as the tension in market development and policy regulation possibilities for CFEs have been previously stated. Other insights, such as the potential of networking and relationship development with industry leaders, bring new priorities to policy discussions.

In order to narrow the findings, the results are organized and explained utilizing three rival (opportunities vs. limitations) explanation themes: 1) Capital, 2) Organization orientation and 3) Competitiveness (Table 4.1). This reporting strategy allows focusing the attention in the most relevant factors allowing CFEs to integrate via a joint venture.

Table 4.1 Final themes resulting from data analysis.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Opportunities</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>Social capital</td>
<td>Human Capital</td>
</tr>
<tr>
<td>Organizational orientation</td>
<td>Adaptation/innovation in decision making process</td>
<td>Dilemma tradition vs. efficiency</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Improvement of internal systems (facts)</td>
<td>Regulatory framework</td>
</tr>
</tbody>
</table>
Each theme is characterized by the two most relevant explanatory causes and further explained in detail.

4.1  Capital

ICOFOSA representatives are responsible for the task of ensuring capital sustainability. Initially four forms of capital, social capital, natural capital, human capital and financial capital, were considered in the analysis. However, data analysis revealed that social capital and human capital were the key types of capital addressed by respondents.

While CFE networks within the community, relations with government and non-government institutions and the business relations within the industry are seen as opportunities of social capital to strengthen CFE participation in the marketplace; its elites practices, social conflicts and in other cases covered corruption made the possibilities of CFE to vary in a scale of gray. The governmental decentralization of the public forest policy has not fully met the needs of a heterogeneous CFE sector and it is suggested a higher degree of collaboration among institutions. A hypothetical sense of trust and understanding of needs among social and private players could enhance competitiveness within the industry. On the other hand, CFEs face serious problems of lack of professionalization and qualified personnel to operate, lack of leadership, training and a strategy of maintaining low wages to reduce costs is not increasing competitiveness or profitability for CFEs.

4.1.1  Social capital

The ability of ICOFOSA communities to lobby, negotiate, and collaborate with each other has allowed their integration. ICOFOSA as a collective partner, as with many other CFEs, does not yet have relationships with mainstream members of the value chain in large cities such as Mexico City and Guadalajara. The lack of trust results in an advantage for intermediaries to assume risks and to integrate the value chain. The trustworthy intermediary then becomes a necessary component of the value chain.

4.1.1.1  Opportunities for trust building and association within the industry
There are opportunities for CFEs to assure better income and to professionalize their business practices dealing directly with manufacturers or wholesalers, depending on the market strategy. An ICOFOSA key customer mentioned about their managerial capabilities:

...they already had the contact of a potential large customer, what happened? They were talking about [distribution for] a thousand or two of sales points, but because they could not reach the price, they said no. In higher volumes margins are 2 or 4%, that’s it. They need to have a good production Manager in the plant, one that is able to operate everything, to make the production constant and making sure that everything is improving...[Ixtlan’s key customer].

Too often, CFEs are unable to satisfy volumes or quality standards in the time frame demanded by buyers.

They need to be thinking in the responsibility of time deliveries [...] in being reliable and sticking to the agreed date to deliver the furniture. [Ixtlan’s key customer].

The ways ICOFOSA connects with consumers, customers, shareholders and stakeholders is not consistent. The inconsistencies are perceived by manufacturers towards comunidades as a gap of understanding and trust.

Competing in the modern forest sector requires a degree of customer interaction and service that may be foreign to a CFE working where social flexibility is deeply ingrained. This is the core of a customer orientation. There is a need and opportunity for CFEs to learn the “business language” of buyers in terms of dimensions, quality grading, packaging requirements, volume calculations, documentation terminology, delivery schedules, and labeling in order to establish “business credibility” (IIED, 2006).

There is a generalized perception that ejidos and comunidades have a lack of training and capability to satisfy the demands of the value chain:

I buy my wood from private companies. In my experience, ejidos only sell roundwood and because they are ejidatarios they do not know how to dry, how to transform. [Furniture high-end manufacturer].

A sense of reliability has been discussed on several occasions and internalized not only for members of ICOFOSA, but also to shareholders:

What we need to do is to improve our quality control, production [process] and time delivery. Because if we cannot deliver on time a significant volume
the customer is not satisfied, still we are having some problems [International NGO representative, engaged in the integration since its conception].

The lack of efficiency could have its roots in how they prioritize efficiency in the community value scales. The value system of capitalist society ranks work as the core axis of life and is different from the one prevalent in the comunidades and in CFEs as their commercial institution. For comunidades work is only part of the subsistence factor and it occupies a place below the family and the community. Those contrasting mentalities place different priority levels on contracts and communal agreements. The gap between these mentalities could be a possible source of distrust between privates companies and CFEs. This equates to a crossing without an intersection that makes it difficult to exchange between partners (Raul Cabra, personal communication).

This values gap can be illustrated in Figure 4.1 below, where the business and community cultures have different priorities. This gap directly affects trust relationships, norms of reciprocity and the overall competitiveness existing in the national industry.

![Figure 4.1 Gap in value systems between private manufacturers and CFEs along the distribution chain. Note the need for CFEs to adapt their social structure and values to the industry business-culture to maintain their operations.](image)

In terms of purchasing practices, private companies affirm they feel more security and control by harvesting themselves (Zabin, 1992). Presently, it seems that the profits are moving towards the distribution channel and it is more profitable to commercialize imported wood than to actually harvest it domestically:

Unfortunately after NAFTA, most of the private companies stopped being producers and switched into intermediaries…it is cheaper for them to buy the products and to sell rather than produce them [Marketing forest products faculty in Mexico].

The private sector uses a variety of contractual agreements with the communities to meet raw material requirements. These agreements address renting the forest, purchasing wood
as standing trees, gathering of roundwood on the side road, or direct purchasing of roundwood from the factory (Zabin, 1992).

The principal problem that particular companies face toward the extraction of wood is the lack of long term guarantees for their investment (Zabin, 1992). The private companies need to have long term guarantees to cover investment amortizations for longer durations. Short term contracts allow neither the communities, nor the private companies to invest in the required infrastructure, machinery and roads that could enhance their competitiveness. Also, the situation limits the credit available to communities (Zabin, 1992).

The lack of trust to have long term investment guarantees might be an historical consequence of the conflicts among communities and private companies. From the private side, the perception is that CFEs have little idea about how the business works:

The CFEs have a short term vision, they want their money in advance, it does not work that way [FSC furniture manufacturer].

And from the CFEs perspective, the risk that manufacturers face is passed on to CFEs because of little cash flow in the overall business:

They want credit, to fund themselves with suppliers [...] and then they pay back little by little, there is no cash flow [Community administration]

The communities have a deep distrust regarding practices against which they had to fight from the concessionaires (Zabin, 1992). After the historical process to regain control over their forest, CFEs prefer a diverse portfolio of customers, beyond the most profitable option of long term relationships with few buyers, causing an increase in the community administrative costs and distrust throughout the productivity chain with private companies.

A principle of sustainability has been diversification. San Juan Nuevo has a good diversification in public transportation, avocado plantations, nurseries, fertilizers, a media company…[Local researcher expert in Rural development].

On a larger scale, this factor has limited trade and creates a lack of security for the industrialization process in the area from private companies.

4.1.1.2 Bonding social capital within the community
CFE workers or owners identify that being part of the community helps them to survive risk in difficult times. Therefore, a strong community network reduces risk. “In an individualistic society we tend to forget the importance of *comunalidad*, we prioritize money because of the risk of not being able to provide education, nourishment or insurance to our families. In the community this is not perceived as that because there is an understanding that the community is there for me, to support me. That is why it is so important to maintain a good relationship with the community” (Josefina Jimenez, personal communication 2009).

Risk management is the central function in decision making-process of ICOFOSA stakeholders. Beyond the reputation perception, there is a high need to maintain an active relation within the community because the support the *Comisariado de Bienes Comunales* (Comission of Communal Goods) can provide regarding investments and divestments at the corporate level. However, the balance between business responsibilities and those with the community depends on the negotiation and administrative skills of the managers:

“Ixtlan’s GM oversees a growing business portfolio, while also bearing a number of community responsibilities. Dealing with community business oversight occupies a good amount of the GM’s time. So far, Ixtlan has managed to contribute commercially to ICOFOSA as a result of its GM’s government connections and sales abilities; on the other hand, the GM’s many commitments make it difficult for him to fully meet his commitments to ICOFOSA” (RA, Unpublished report).

Another form of trust building within the community is the practice to rotate managers in *cargo* service across the community division’s enterprises (including the CFEs units’ business management). To perform in different stages of the community ‘corporation’ creates social pride as well as other responsibilities towards the community:

“being mayordomo (sponsor of religious festivities) for the town’s celebration creates social prestige” [Researcher in Regional Development].

For example, an ICOFOSA representative builds a supportive relation with the community by organizing the town celebration. The practice creates a solid bonding social capital with the General Assembly allowing him to perform with a higher level of freedom in the business unit of Ixtlan:

It is not only to generate profits but to create social benefits and to respect all that social network of friendship, and *compadrazgos* [bonding relations among godparents] present within the community [International NGO representative, engaged on the integration since started].
Often, this practice is not easily understood by people in the industry, which prioritize efficiency and just-in-time provision by looking for demand satisfaction:

With people usos y costumbres [uses and tradition or cargo system tradition], they close in December and they tell you see you mid-January. Here our business structure cannot allow it, not even one week vacations, if we do so we stay without cashflow. We need to produce, now imagine if we stop for a month or a month and a half [Ixtlan’s key customer].

The unreliable pattern creates an effect on the following step of the value chain. High risk is usually involved for manufacturers who deal with CFEs and that is the reason why some of them look for security by diversifying into several suppliers, reducing costs but decreasing management efficiency:

I have four or five suppliers, we buy wood from Durango, Guerrero, Jalisco, in Oaxaca not only to Ixtlán and we buy from several communities. Reliability is not there, and this is fundamental, that they are serious in delivery times and quality of what they supply [Ixtlan’s key customer].

Moreover, the lack of reliability cannot be afforded by the industry upstream in the value-chain:

There is a whole industry problem about the lack of seriousness and formality, everyone is the same, all the communal sawmills are like that, can go by three weeks and nothing happens. I see the pattern more often in the communal enterprises than in the private companies; they are not reliable [Ixtlan’s key customer].

They are owners, it is part of them, they do things their way and is hard to change their mentality, then what do you do… you find your place, fix yourself up to look for the best way to enter and take the highest advantage by doing an honest business [Sawnwood broker].

CFEs behavior and mentality might be justified in a networking sense:

People with a mentality focused on competitiveness could think that they go to the fiesta del pueblo [traditional celebration] and do not work. For them [Business units workers]is…we are working to generate a profit for the fiesta. The fiesta is an emotional valve. Maybe we have the possibility to go to the cinema, to a concert, theater or to get some drink. In the community they do not have it [entertainment], then they create a lot of expectation about fiesta because it is their social time. We cannot just say do not go to the fiesta or go work [during that week], because that is their psycho-emotional relief [Former international NGO representative].

The gap between those levels of values have been filled by a group of brokers that in a practical way, have found a niche where they satisfy the demands of the market. These intermediaries offer the competitive advantage of a trustworthy relationship. Then, they offer an interface (shown on Figure 4.1 in page 71) between CFEs and the manufacturers.
My business happens precisely because of the lack of responsibility of the national sawmills regarding delivering and quality [...]. We preview the risks of the manufacturer. I have the group of 15 sawmills and in times where it is hard to find the wood, I know how to organize each order, this is nothing else but logistics, I know who are the serious ones, who is going or not to delay [...] all those problems with sawmills they [manufacturers] used to have are the ones we [brokers] face. Moreover the reliability, few sawmills are trustworthy [Sawnwood broker].

4.1.1.3 Bridging social capital with government

Similarly to the existing internal networks or bonding social capital within the community structure, the bridging of social capital with the government has been a key factor for infrastructure investment for both the industry and the community.

The presidency has done public works due to the good relation with the State Government, and Banrural [A rural social assistance bank that no long exists]. Those relationships ensure that the one in charge can leave a recognized footprint [Ixtlan community administration].

This type of bridging network is not always perceived as favorable for some informants who consider that more than assistance, the subsidy practices have made them less careful about their decisions and attitudes toward their business.

The group interests are getting above the communitarian ones. There are people who use the projects for political purposes or as a platform for deputy positions... There is a separation between the interests of the community and those of the presidency. People who have been foremen of the Forestry Unit later go run for political office positions, because they have control and representativeness [Ex-foreman in business unit].

This posture is highly emphasized by people in the industry who see communities as continuous benefactors of the government:

Well, CONAFOR [Forest Agency] and SEMARNAT [Natural Resources Agency] make them waste time [Local imports wholesaler].

Members of NGOs and local consultants have strong opinions about bridging social capital that these communities have:

The government does and does not support, it controls. They have their godfathers as Irma Piñeiro, their most important godmother, sister of Félix Piñeiro, she is a senator. She has helped them a lot since she was young. Sometimes it is inclined towards personal interest more than a State policy [Forestry NGO advocate].
Others are based on the experience of dealing as consultants of the PROCYMAF program:

The community enterprise is one that looks to be living from the government that looks to invest the least possible and to look for benefits for their stakeholders but without taking risks [PROCYMAF business consultant].

The value of ICOFOSA beyond the economic and political benefits has been the center of exchange among business practices and experience of different communities.

For the three communities this has been a laboratory. We have learned that we are able to improve quality, the pine performs a lot. We have learned to make integrated moldings. Our potential has a lot to do with the presence of more experienced people in the industry. The general manager [Mancomunados] has gone out more often, he brings new ideas and we support him [Community administration].

The opportunity for CFEs to take advantage of their social capital and find their market niche is a trans-communitarian collaborative effort rarely seen in the context of CFEs.

4.1.1.4 Lessons of social capital in CFEs

Beyond the cultural value that communities place on the forest and its use, the degree of communities’ engagement in the CFE performance has deep roots in the perception of its origins. CFEs then, have diverse levels of engagement on their organizational process according to their history and the way they originate. How the appropriation of the resources and of the process has taken place might explain: 1) the market performance, 2) their level of engagement in the business process, 3) different ways to reach control among different CFEs, and 4) the major limitations to generalize this case to a broader perspective.

“This forest history was of consuming interest to my audience (dozen of community leaders in Ixtlan attended a results presentation); a shared experience of working for and struggling against a logging concessionaire had united the community, and the now-independent community logging business was the main support of the town economy” (Mathews, 2009).

The way these separated units gained control over their natural resources, mainly as a result of a historical struggle, might be the required conditions for a genuine genesis, appropriated and with replication possibilities (Raul Cabra, 2009 personal communication). It might be that these circumstances create a deeper sense of identity and belonging, culturally strengthening the roots of any CFE initiative.
The CFEs appropriation process or self-governance and management over their natural resources gives the communities potentially more strength when negotiating with the private industry owners.

New types of relationships between buyers and sellers above a base of justice and willingness to build trust could be one of the competitive advantages for buyers from other parts in Mexico. Local buyers have created a common understanding about purchasing practices. There have been reports about some private companies trying to associate with CFEs and looking for credit access through the association with “companies in solidarity” Empresas en solidaridad program (Zabin, 1992).

During the development of this research, ICOFOSA social networks and norms of reciprocity have facilitated cooperation for mutual benefits. This has been shown by the response after the Mancomunados fire of December 13th, 2008 (See Appendix F):

On December 13th, 2009 the furniture factory (and other assets) of Pueblos Mancomunados was destroyed by fire. The immediate response by ICOFOSA’s members was to agree to utilize Ixtlan’s spare manufacturing capacity to enable the continuity of Mancomunado’s manufacturing activities. This swift act of mutual assistance is the clearest indication of the value of the “Integradora” model. In itself, mutual assistance among economically fragile communities may be reason enough to selectively adopt such a model, even when the commercial benefits of integration are unlikely to be realized.” (Perez, Javier, unpublished report January 4th, 2009.)

Moreover, the ICOFOSA venture has the political significance to allow rural people to build political alliances that bypass industrial forestry institutions and find sympathetic urban audiences and environmental allies, undermining extrinsic forces over their resources. Conversely, the subsidies that ICOFOSA has had could be the reason why it has not reached the performance that its independent associates have reached individually.

The reason why ICOFOSA has not yet reached a higher performance is explained by several causes: 1) the current downturn in the market has not allowed the expected growth. ICOFOSA units over the past year have decreased their interest in investing in the venture simply because, 2) they are in an early stage of development or 3) they are in a constant subsidized culture.

For example, Mancomunados attributes only 20 or 25% of its profits to ICOFOSA […], the rest was achieved by their sales department in the factory. Ixtlan was doing the same. Each one sells on their own. TIP
Muebles does not have a marketing department, only retailer operations [International NGO representative, engaged on the integration since started].

The factors that allow maintenance of the integration despite its challenges seems to be a tradition of communitarian organization and accountable representation within the community:

There is a communitarian tradition of forest management that has been confronting private enterprises on one side as FAPATUX and a government tradition to control... then a traditional movement in defense of their territory that comes not from during that time but from long time back. In particular in Sierra Juarez has a deep tradition in defense of the communal territories whose presence still up too now. This could explain why Sierra Juarez is one of the better conserved zones in the country [Forestry NGO advocate].

For example to Ixtlan, one of the success factors is the fact that they have 30,000 ha of forest area [Forest Agency employee].

If we go to the dark side, there are communities that maybe have potential but are not organized. There are others that are not clear in terms of their management. Moreover the professionalization, the corruption […] In Atepec, they have the best wood of the region but they have a tough social problem [ICOFOSA exrepresentative and current manager].

4.1.2 Human capital

In this section, the abilities and attitudes of ICOFOSA human capital are analyzed. Since organizational performance is correlated with the quality of human capital (Wang, 2008), ICOFOSA competitiveness has a direct impact based on its management capabilities.

4.1.2.1 Workers and owners

As explained earlier, the cargo system based on position rotation also creates representative turnover in the Board of Directors of ICOFOSA. This is a frequent pattern in communities where the management is still traditional as compared to those which limited the political realm and economic areas of business management. Particularly for Textitlan, the company whose business units (factories) are still operating under usos y costumbres tradition, their industry manager rotates every three years. In terms of the overall corporate strategy outcomes, this practice has created problems such as a high turnover rate. This pattern of a lack of leadership and vision causes the investment in specialized training to be lost. An important contention of the cargo system (service) is the one affecting
the ownership of the production process. A common trait of the three communities that form ICOFOSA, and potentially the majority of CFEs, is that the organizational behavior performs as a result of property relations. CFE workers are typically owners, although this pattern can change according to the economics of the region where the factory is located.

“In Ixtlan 50% of the workers are outsiders” [Local researcher expert in Rural development].

In the case of Textitlan which has their factory in a middle point between their community and Oaxaca City, the workers who are from the community and at the same time owners, are the ones in charge of the operation and logistics. Therefore, they are responsible for on-time deliveries to the retailers. TIP Muebles retailers have more complaints about Textitlan than any other ICOFOSA community.

Similar to the rotation of managers every three years, Textitlan factory workers also experience a high personnel turnover, losing time and investment in core production steps such as wood drying and furniture finishing.

The personnel rotation has consequences such as “lack of continuity in the technical side” [Local researcher expert in Rural development]. For the three communities as for ICOFOSA there is a common understanding of the need to enhance their marketing structure, the number of qualified personnel seems to be a function of the company income.

To open a marketing position with qualified personnel […] with business skills and ability to go to the wholesale market [ICOFOSA representative].

The training oriented to communities should be a priority for the companies as it could increase the efficiency and productivity level of the communities, which benefits the private sector and the entire competitiveness of Mexico’s industry.

To engage young people in the productive process, it is essential that they are able to receive the knowledge and remuneration for what they are learning, and later those people are able to utilize their skills by socializing and training more people [Ex-foreman in the industry].

Often, the process experiences a scarcity of raw material and delayed deliveries. Owner-worker roles are affected:

Nobody wants to work, everyone wants to be a boss, and they do not cooperate [Local imports wholesaler].

The first conflict faced in the organization is that comuneros are owners and workers, they assume different roles […] Workers do not take their role
seriously, this affects quality, productivity and compromise [Local researcher expert in Rural development].

4.1.2.2 Personnel management and technical skills

CFEs are criticized for being inefficient and lacking management and business sense. A local manufacturer mentioned that with the same machinery private firms could have been producing three times what the ICOFOSA factories are producing. The strategy of maintaining low salaries instead of training and retaining their labor force has been prevalent.

Sometimes the workers get another job where they get paid 300 or 400 pesos more, and then, what they do... they go away.. if you do not have the means to retain them [...] What for is a big company a very rich one if this is not reflected in people’s quality of life. The average is 130 pesos for a normal worker [Ex-foreman in business unit].

The relatively low wages are another reason why workers may choose to leave:

There is a demand for fair wages of approximately 10 dollars per day [...] If you treat them well they’re going to do a good work, but if you pay half, half they will do. [...] The personnel rotation can kill a company because at the end, the knowledge is taken somewhere else [Ex-foreman in the industry].

In the private sector of the industry, where there is no room for worker ownership, the payments are decided based on sales commission:

In our business we pay a salary based on sales, a salary based on commissions, those who have a base salary do not produce the same as those who only work for a commission. They need trustworthy salesman, giving them a commission from 3 to 4% in extraordinary circumstances [Ixtlan’s key customer].

Another main concern in the labor force is the lack of leadership and this pattern is tightly linked to the following section:

I have seen a high personnel rotation due to the lack of vision... and then we are in the same dynamic, if there is not a clear vision and authority [Ixtlan’s key customer].
4.2 Organizational orientation

The clarity of an organizational goal determines the degree of its workers engagement and its ultimate accomplishment. For CFEs this goal is often stated to be a source of employment generation. However, the driving market pushes this intention into a competitive and changing dynamic. The everyday reality pushes CFE managers to adapt decisions that result in incremental loss, forest mismanagement, and risk of bankruptcy. The adaptation path deals from the manager's adaptation to the requirements of the industry and those of the community, to a slower and more significant factor of community opportunity of resilience, the negotiation about the community governance structure. To reach the adaptation requires a place for a change of mentality and self-evaluation, where only few CFEs are. It is required and it is developed as a mix of factors such as bargaining capability, organizational experience and focused vision. The characterization of this adaptation shows that it is emerging from a complex dilemma between the traditional culture and the new business mentality required to stay in the industry. The core of the CFEs challenges lies on this duality of being stewards of society and having few capabilities to efficiently manage their business.

The organizational orientation is followed by its business strategy. ICOFOSA lacks a focused organizational vision. The planning can be defined as the allocation of decisions guided by the company's vision, mission, and values which are the guide for the company's strategic development. Companies attempt to differentiate from the competition. The mission focuses on markets rather than products, it concentrates on the broad class of needs that the company is seeking to satisfy (Juslin and Hansen 2003).

Lack of focused vision can be expected in a common pool system such as ICOFOSA, where values and expectations are diverse. For consultants this creates a high degree of uncertainty about the future of the organization:

> The difference between a community enterprise and a private one is that the latter knows where it is going, and the communal does not. It continues sailing with the flag of “please government, support me” [PROCYMAF business consultant].

In ICOFOSA, as in many other CFEs, decisions are taken based on risk management (Flyvberj, 2006). An ICOFOSA managers’ function is to balance the risks among financial assets of the factories and trust with the community. TIP Muebles as a retail strategy does
not yet have clear vision about the distribution potential and the business culture that should exist in order to make it happen:

Something important is that we do not have a culture to produce 50,000 or a culture to sell 50,000 per vendor [ICOFOSA representative]

It is not the same to sell wood to an intermediary to make furniture then you start selling furniture… the capacity to add links in the productive chain, from production but also for marketing is a different thing [NGO representative].

In terms of the speed in which agreements are taken, there is a young generation of managers perceiving the lack of organizational orientation:

We need to close ranks, at the end we do not take agreements. We lack a good marketing strategy [...] we need to appoint someone, to take the responsibility in a person dedicated to sales [ICOFOSA representative and manager of a business unit].

When strategic marketing is developed over a long period, it forms a spirit or atmosphere. That spirit is the internal goal of marketing, to create a state of mind coming from inside the company (Juslin and Hansen, 2003). In TIP Muebles, uncertainty and a weak social capital seems to prevail about the corporate culture philosophy:

Because it [the mission] is not something that is shared, when I just came I was looking for, which is the mission and vision of this enterprise?... and they had like three At the end it stayed in a project of [two administrative personnel], they made the mission and vision and it is supposed that is the one we are using… [ICOFOSA Marketing Coordinator].

Well, that is something we need to define at the Board level, if the people do not put it... [ICOFOSA ex-representative and current manager].

Would you [NGO representative] organize a workshop to determine the mission and vision of ICOFOSA? [ICOFOSA representative]

That is good, to remember all this is important, besides I have not listened all this, all you are discussing right now. I think that is not shared with the rest of the personnel. Anyway if we had not touched it, if we had not talked about it… we could not have known about it [ICOFOSA Marketing Coordinator].

This discussion reveals the urgent vs. the important decisions in the everyday operation.
The learning curve has then made ICOFOSA members think that they are entering into a business level, such as distribution, that demands a different mentality and awareness of the market’s needs.

The result of this dilemma is an unfilled gap of supply for the existing market:
It is missing a clear offer; it is missing to satisfy the clients’ needs [Forestry NGO representative engaged in the integration process since started].

The responsible social marketing is the one that identifies and does not create them. Some bibliography says produce and then create, through marketing. That is the reason why the Japanese people know better the American needs and have taken their market. They have done more precise studies about the American needs […] Nowadays all markets are saturated, we had the belief that the enterprises that developed in the country [Mexico] had certain comparative advantages, nowadays does not happen that way, every time the competence is higher [Local researcher expert in Rural development].

Integradora is waiting for the Board to give them a working plan [ICOFOSA representative].

4.2.1 Adaptation and innovation in ICOFOSA’s decision-making process

In this section, insights about the decision-making process are considered and adapted to the rapid change in the forest products industry. ICOFOSA represents a laboratory and a place for learning for the three companies. A close look at the decisions made in the joint venture can illustrate this organization model:

Some critiques are that the forest social enterprises continue linked to usos y costumbres traditions, they have to separate the manager side of the enterprise [State forest executive of Oaxaca].

The community structure (agrarian, municipal and religious) has been adapted as a result of extrinsic and intrinsic changes. In some communities, the General Assembly has lost decision power and has given it to key service people. In other communities the problem resides in the amount of activities and communitarian responsibilities of the authorities. The agrarian communities, responsible for the enterprise activities are not trained in terms of industrial manufacturers and in some cases with a “business toolkit” to communicate effectively along the value chain.

It has to do with the ideology, one day when every comunero could have a professional son, maybe a change would be possible. The transformation is on education [ICOFOSA representative and CFE manager].

Managers have the responsibility to operate the business in a sustainable way.

The enterprise has to work… but at who’s level? In the short term without worrying about the workers? Managers face a dilemma to guarantee the well-being of future generations… to accept risks for the hypothetical
benefit of a grandson that I do not even have now. To do that I am in risk” [Researcher in international public policy issues].

4.2.1.1 Governance structure adaptation

Despite the ongoing debate about their decision-making process, Ixtlan is slowly adapting and having an Advisory Body that includes the most trustworthy and experienced people in the community (Alberto Belmonte, 2009 personal communication).

There are social factors that limit or favor the decision-making process by the managers. Even the creation of Advisor Corps… in my experience of four years, one thing is decided in the Advisor Council or Elders Council and other is taken in Assembly. I know which are the filters, sometimes decisions have been already planned before taking them to the Assembly [International NGO representative].

ICOFOSA, an exceptional case, has relatively fast-track decision-making process. Most of the CFEs nationally do not work that way, but in terms of efficiency, this model has proved to be acceptable.

In some communities, the decision-making process is slower and more detailed, it takes more time, and it is a more traditional process. Here the power is transferred and still the process is slow. It has to go from Council analysis to the Assembly. [In terms of the most developed CFEs in the country] I will say is Mancomunados, then San Juan, then Ixtlan, then Textitlan, then El Balcon and then Milpillas. Ixtlan has a Advisor Body, Mancomunados has delegates, the difference is that in Mancomunados are eight communities. Ixtlan is one community. Being eight communities, they give the power to the manager who takes the decisions. In Ixtlan, decisions are taken by the managers and the Advisor Body, a group of comuneros. In Textitlan they have an Advisor Commission but they make decisions slower, depending on the urgency of the issue [...] depending on the importance of the affair. When those are administrative, the managers solve them. Indeed, in Mancomunados when decisions regarding money are taken by the manager, in other communities if does not work that way because investments are decided between managers and the councils [International NGO representative, engaged on the integration since it started].

Some lessons learned from this adaptation regarding risk management are organized and illustrated by an expert in the communitarian-silviculture field:

For the communities, it is the managerial issue that they have reached, the capacity to go together. We need to be clear about those four differences. [1] To take advantage of the harvest cut limit without fear. [2] Go with the highest value possible [3] Together, to take out the intermediaries, those are the kind of things that can be learned from. [4] In an organized fashion,
keeping the rest of the community informed, aware of the transparency demands in the communities [Forestry NGO representative engaged in the integration process since started].

4.2.1.2 Managers’ roles in adaptation

In ICOFOSA, a unique case of integration, the degree of managers professionalization and experience in the industry has pushed the company forward. The case of Pueblos Mancomunados exemplifies a degree of specialization and centralization of manager’s decision power. It is seen as a successful case due to the experience and networking accumulation during 18 years. The same path of adaptation is followed by Ixtlan within a higher rotation system via the formation of its Advisor Body. However for communities such as Texitlan, based on Usos and costumbres system, managers’ rotation illustrates the failure of maintaining a unified vision:

It has been a learning experience about the rotation problems, since ICOFOSA started, it has had 3 managers in two years [Ex-foreman in business unit].

At the same time, due to their multiple activities, CFE managers do not possess adequate personal and family time, labor incentives or adequate training (ASETECO, 2002).

I presume that since the very beginning there was not a leader with the capacity to lead the project, a leader able to maintain the vision, the required technology for the envisioned project and having the community backup [Ixtlan’s key customer].

For example, ICOFOSA managers struggle to think on the current TIP Muebles market strategy at the business unit level (CFE) and also as a functional strategy (TIP Muebles). Representatives of TIP are in the business-culture learning curve. The adaptation becomes a mixed vision between thinking in volume as a factory or as a distribution channel through their retail chain. These decisions become even more difficult when the responsibility of managing the community assets are at risk:

The problem is that [the wholesaler who wanted to buy them] wanted money and we did not have it […] that implies costs, and when you have stores there is not security that you are going to sell it. Then you have a risk, your investment. Those are two different but very similar things… maybe it is not the market that you are looking for [Ex ICOFOSA representative and current manager].
4.2.2 Dilemma tradition vs. efficiency

An everyday challenge for ICOFOSA representatives is to make decisions adapting the business environment to the politics involved within the community. The bottom-line of their risk management relies on efficiency versus community support; here is the dilemma of tradition vs. efficiency, the debate between the public and the private school of thought. The nature of a social business relies on the challenge to integrate two mentalities that seem to be exclusive: the business management philosophy and the communal governance system. Differences among ICOFOSA’s three members make commercial integration a complex decision-making process.

This dilemma (tradition vs. efficiency) is faced equally by managers of the three factories as well as the representatives in ICOFOSA, on a daily basis. Managers try to politically satisfy the community expectations by looking at similar cyclic patterns or traditions that allowed them to be successful, resilient, or transformative in the past.

“Textitlan lacks professional business management and makes managerial appointments based on communal political considerations, the cargo system. As a result, its current management cannot efficiently manage their investments (which are the largest of the three communities)” (RA, unpublished report 2009).

4.2.2.1 Legacy and tradition of comunero

A rarely discussed, but existing, bonding social capital pattern in community governance is the legacy of comunero (commons) power. There are privileges reserved to male inheritors of comuneros. Some of those privileges are the right to qualify for positions along the cargo system.

For me, the most suitable will be to design a position, irrespective of if you are or are not comunero. My reasons are… we need to make the changes for a “comunero son of comunero” to get things done and to be prepared. Nowadays it is possible to find the case that somebody without the capabilities just because of being comunero son he goes out in front [Ex-foreman in business unit].

Especially in communities, more than in ejidos, this practice is directly affecting the decision-making process of CFEs.
Some communities like Ixtlan are conscious about this pattern and have taken some steps to adapt to the changing environment:

It was not until 2004 that the GM does not need to be a *comunero* son. It is based on finances that we need to resort to. The CFE has been decentralizing, fragmenting [Ex-foreman in business unit].

It is not surprising that even when there is a need to professionalize the management positions, the GM of Ixtlan forest factory (the most strategic asset of the community), elected in 2009 is still a “*comunero* son of a *comunero*”.

… the managerial structure does not fit the *cargo system*. It is important that they define: you are worker in the company and *comunero* in the Assembly, but this requires a change of mentality, a very strong one that is causing a shock. This is happening in Ixtlan. The *comunero* son of *comunero* tradition is hurting […] people with experience are already starting to see those traps. We need to see outside. Ixtlan was offered the choice to get a consultant [expertise training], someone able to take informed decisions but when saying …I do not need this, growing possibilities are lost. Their decision-making process will need to be taken more carefully. Being *comunero* son of *comunero* will need to be analyzed in the Common Administration. A reliable consultancy is required to talk openly about their needs… to understand how things happen, how to solve them, to provide some ideas [International NGO representative].

However outsiders’ presence in CFEs, their values and mentality might be perceived as a threat for the commons:

A foreman is paid 9000 pesos, an engineer coming from outside is paid 14,000 or 15,000. Many people say if they do not pay well, why should I stay… better leave. And this also allows outsiders to not fully engage, they only do it for a payment. Instead, when you are part of the community, you coexist with them, you live with them and you give more than what they ask you for [ex-foreman in business unit].

Income generation is still the first goal of a social enterprise. However, other decisions could be taken, such as hiring more employees as an activity aside from the primary goal, and as a strategy to fulfill the demands of the community. Efficiency has to be created to make enough profits to sustain this model of organization and face the current challenges:

At the other end of the spectrum lies Pueblos Mancomunados, perhaps due to the lack of cash producing forestry operations (as a result of a forest disease) has had to rely on its industrial investments for income and on a professional manager for their management. Still, Mancomunados faces several challenges (RA, Unpublished report).
4.3 Competitiveness

According to the National Chamber of Trade, current Mexican competitiveness in the furniture manufacturing industry is related to: a) Low cost of labor b) labor force availability, and c) quality and productivity of labor force. The main limitations include: a) high material costs, b) lack of qualified labor force, c) lack of qualified management, d) poor design infrastructure, e) limited availability of parts and suppliers, dimension products and, machinery, f) few integrations and low production scale, g) low specialization and exclusive variety of used materials, h) not enough normalization and parts standardization, i) low use of quality control and international norms, j) old technology and handcrafted production orientation, and k) orientation to internal market and reactive instead of preventive to external drivers (CANACINTRA, 2006).

In this study competitiveness for CFEs in the marketplace is explained by the internal systems of CFEs that they can control and the Forestry Regulatory framework as an extrinsic driver. While CFEs struggle with their responsibility to optimize their availability of natural resources and human capital to sustain its participation in the market; there are extrinsic factors limiting their participation. Some of them are the current trade liberalization policy with an increasing participation of Chilean timber in the processing and Chinese furniture for finished products. The tax reduction in transformation prioritizes wood extraction, encouraging CFEs to see forest rotation as a more profitable business than its industrialization. The forest public policy bureaucracy to obtain permits and its lack of cooperation with other institutions increases the response time of the industry and reduces its overall competitiveness. The possibility to transfer power to local institutions to decide the future of their forest could work if the conditions of citizenship and responsibility associated with education were met. An overall mentality of distrust and even confrontation among CFEs and private companies reflects the degree of fragmentation in the industry. While illegal logging and land conflicts continue to deforest CFEs resources at a significant rate, the alternative of forest certification has not been met due to a lack of consumer education and market awareness.

Reaching market competitiveness in the wood industry is directly linked to the future of the economic survival of people living in the forest. A balance in human demands and economic drivers should guarantee wealth and resilience to owners:
The forest is a renewable natural resource. The well-managed forest is a permanent source of wealth. The law is needed but who makes the law really needs to know what exactly the forest activity is [Furniture manufacturer].

Being competitive based on communitarian silviculture has been a challenge because it does not obey the same efficiency decisions as plantations. However, there is an unsatisfied demand in the national market:

Mexican imports of forest products are higher than the national production, instead of fulfilling our own consumption we are buying from outside; and there are communities that can make it. The market is there. Today, with peso devaluation there are possibilities to be more competitive, it helps now but things will reach their level […] the need to find strategies to reduce costs is urgent [Forestry NGO representative engaged in the integration process since started].

Their potential is the unsatisfied demand. If the Mexican forest sector does not satisfy half of the internal demand, how much more potential do you have? [Forestry NGO advocate].

The selective harvesting as called by comuneros or high grading has translated in an increase of oak that is not highly demanded. Cutting down the larger and superior trees, that could stay to improve forest genetics, is reducing the quality of the forest.

[By applying selective harvesting]….the forest is not seen as a wood factory but as a holder of important functions on the ethnic group where it is embedded [Local researcher expert in Rural development].

For CFEs in Oaxaca, competitiveness has decreased as a function of declining forest quality. At the time of FAPATUX’s concession, the market had better incentives for old growth and dimensional wood. FAPATUX used to harvest equally volumes of large and small trees without providing any financial incentive to leave the old trees. Later, when the market for old growth appreciated, old growth trees were cut more often than small ones, leading to a reduction in forest quality (Zabin, 1992).

In 1992 it was predicted that at the current cutting rate, the old growth wood would only last for 10 to 15 years. Thus, only small diameter log harvesting would be possible. Today, in Ixtlan this prediction is true and now they have started to extract wood from their neighbors

For example, Atepec has the best wood of the region, very nice wood from a very high elevation region [ICOFOXA representative from Ixtlan].

The decreasing forest quality trend also affects the demand for Oaxacan wood in the market (Zabin, 1992). The reason why some producers have not changed to imports and
continue buying locally is because of the mechanical property requirements and quality of old growth wood.

Oaxaca still has trees of more than 40 years [Furniture manufacturer].

In Oaxaca we have bet on the idea that we have a comparative advantage; in fact Oaxacan forests have some of the best wood qualities of the country [Local researcher expert in Rural development].

Due to the absence of a standardized grading system, this wood could not be sold for higher prices; moreover the forests of Oaxaca have been deteriorating over the years:

Sierra Juarez is deteriorating at an incredible rate. If Sierra Juarez is that way, now let’s think about the Papaloapan zone, in Laguna de Alvarado where nothing is left. This is the most worrying… there are totally bald zones. Teojomulco de Marcos Perez is totally desert now [Local researcher expert in Rural development].

In some cases national sawnwood is still competitive due to its customization and the common understanding of purchase practices among the Mexican industries. The Mexican method includes a higher margin for planing. For example the 2x4 piece of lumber has the exact dimensions in Mexico whereas they are 0.5 inches smaller in the US.

Fifteen years ago, there was a captive market for sawnwood. Profit margins of Oaxacan wood per m$^3$ are lower than those for non-processed wood (Zabin, 1992). Evidence from interviews suggests that the buyers used to look for the producers. “None of them are taking the effort to sell their product, nor the initiative to do it. The operators of a particular sawmill were more worried about having enough wood to process” (Zabin, 1992). Nowadays with the increasing competition and quick changes in the market configuration, there is an urgent need of CFEs to improve their wood grading system, logistics system and quality control.

### 4.3.1 Improvement of internal systems

With a vertically integrated commercialization strategy, the main concern is to standardize the production to offer consistency in the final product. While the three factories have specific concerns, some common identified needs were quality control, especially in the production process, packaging and products loading, finishing, staining, industrial and electronic maintenance, design, costs development systems, teamwork development, and sales force training. Ideally, those needs should be identified, planned and programmed.
ICOFOSA needs to invest in promotion, in design, in training their people about product knowledge, in attention and service, establishing controls to reach success of the project. Internal controls, promotion, training, service, design, quality and image [PROCYMaf business consultant].

There is a need for ICOFOSA to master its product to become more competitive in the local marketplace. Opportunities to improve production processes, and business systems must to be reflected on market functions or daily operations for the three factories. A reduction in production costs, better time delivery, innovative product designs, better quality control and common standards for the three communities are key. Wood drying stability, and technology optimization are also important factors. All those intrinsic variables, relying on ICOFOSA management leadership, are related to an increase in competitiveness and market share for the company.

**4.3.1.1 ICOFOSA economical sustainability**

To have a better understanding of ICOFOSA’s current performance, a general financial status of 2008 of TIP Muebles has been analyzed. It can be concluded that the company’s financial health has an annual income upper 175000 USD (where 1 USD = 13.4315 MXN), though it experienced a slight loss of 1.62% in 2008 (Figure 4.2). However, in terms of economic viability, on its third year of operations the company is not yet profitable. Figure 4.2 shows the operational costs or working capital equating their net profits, which means that the retailers are inefficient or operating at high costs.

![2008 TIP Muebles financial status](image)

Figure 4.2 TIP Muebles financial status. Current operational costs equate net profits showing an inefficient operation. The current financial status shows a loss of 2,863 for 2008.

The 2008 subsidies of $50,000 reached 25% of their income, which demonstrates that without that external base, the company would experience significant loss. Approximately
half of the costs have been expended in travel costs, tradeshows attendance (without significant commercial rewards registered), presentations and an observational trip to international furniture tradeshows for board members. Although it may represent as being part of the marketing strategy of the company, there is little control over the goals and results of those expenses.

Currently ICOFOSA is not a leveraged company due to the existence of a capital assets (own resources) of 75% and enough working capital or cash flow.

During 2008, while operating three stores, the income distributions for Ixcotel retail distribution was 35% of the income distribution, for Reforma retail location was 28% and for Plaza retailer location was 11% of their income (Figure 4.3). This retailer location was closed at the end of September 2008 due to low productivity per square meter.

![Income distribution per retailers TIP Muebles](image)

Figure 4.3 Comparative of ICOFOSA income distribution per TIP Muebles retailers. Source: Integradora Comunal Forestal de Oaxaca, S.A. de C.V.

Figure 4.4 shows the income distribution occupied from subsidies. The current financial status based on external support is not sustainable.
The administration must identify a better way to reduce its operational costs (See Figure 4.2) or redefine its market strategy and change its mentality to sell more. A customer-oriented operation should maximize its productivity per square meter in every retail location (See Appendix G).

As explained before, Mancomunados takes better advantage of the operation and although they do not have a net profit in retail they do have in their factory. In Figure 4.5 the market share distribution within the company for each of the three communities. The difference in market participation among the three communities raises the question about profitability for Ixtlan and Textitlan. Then, decisions in maintaining the operation are obviously not based in profitability but in a market-learning opportunity or a political strategy for gaining representativeness with external institutions.
Figure 4.5 TIP Muebles market share distribution per community. Source: Integradora Comunal Forestal de Oaxaca, S.A. de C.V.

After two years of incremental growth (Figure 4.6), the current performance per community has been affected by the market downturn and the decrease of local demand since January 2008.

![TIP Muebles sales per community](image)

Figure 4.6. TIP Muebles Financial historical status 2006-2008. Source: Integradora Comunal Forestal de Oaxaca, S.A. de C.V.

4.3.2 Regulatory framework

In addition to the internal constraints, the external drivers are those over which ICOFOSA has little control. The previous Forster and Argüelles (2004) classification of external barriers has been used to lead the flow of findings:

4.3.2.1 Trade liberalization policy

As seen earlier, the cost of communitarian silviculture and natural forests decreases the competitiveness of the overall wood industry in Mexico. In an open market, the
competition has covered the unsatisfied demand and for 20 years it has cost the Mexican sector a decrease in productivity. The decrease in productivity makes the national industry more vulnerable to outside competition.

The 1992 market openness reforms were seen by skeptics as having the potential to result in a classic pattern of unequal regional development. If the investment in training is not there, Oaxacan areas could be limited to wood extraction without a manufacturing industry (Zabin, 1992). Nowadays, the veneer and paper industry have already been lost in the transition to open markets, with consequences in employment and economic growth of the State:

...after NAFTA, most of the private companies stopped being producers and switched to the intermediation [Marketing forest products faculty in Mexico].

...we import plywood from China and England. The cherry plywood or okoume is imported from England but extracted in Africa or MDF boards are imported from Chile, Asia, Canada and the United States [Local researcher expert in Rural development].

4.3.2.2 Forestry taxation policy

From a perspective of forest sustainability, CFEs might be the institution that plays an active role in the use of forests and their management. As a result of the social dimensions and economic externalities, this sector demands particular attention. The fiscal policy does not distinguish between a private company and a CFE (Arguelles and Forster in CSMSS, 2003). As in the past, the profit margins are still higher in the extraction process (Zabin, 1992) than in the manufacturing operations:

Taxes are higher for transformation than for extraction, in Mexico round wood extraction is 0% taxed if the company only is focusing in primary activities [Alberto Belmonte, personal communication].

Although centralized models work better with the traditions of the broader extent of CFEs, for example Pueblos Mancomunados and Textitlan, there are few exceptions which have adapted to the decentralization trend.

To constitute new legal entities and change the CFEs status to industrial enterprises will force them to face new institutional changes (Arguelles and Forster in CSMSS, 2003).
This has caused many of the companies to separate their value chain as a strategy to avoid those fiscal responsibilities which should result in better profits in the short run but an overall industry fragmentation in the long term.

It is stated that CFEs have potential to increase the harvested wood at twice the current rates (CSMSS, 2009). Besides some of the communities that represent the successful cases of this study, the large majority of the communities have obsolete equipment, disorganized industry and difficulties in selling certain products (Zabin, 1992).

The system supports the trend to transform the communities into raw material suppliers and the forest abandonment (Arguelles and Forster in CSMSS, 2003).

The fiscal policy has to keep in mind that forestry is of public interest… instead of paying taxes the communities should be forced to show investment in silviculture, industry and public infrastructure (Arguelles and Forster in CSMSS, 2003).

As suggested by Forester and Argüelles (2004), some of the limiting factors affecting the purchase policies in the rural environment, is that few suppliers are able to enter in the formal market and able to cooperate with manufacturers to provide material sources and fiscal obligations:

Then it is hard to deal with an ejido where they may not get invoices [Furniture high-end manufacturer].

The formal gap adds-up to the existing trust distance between private companies and communities.

### 4.3.2.3 Forest Public Policy

Frequently forest public policy is not articulated between different public agencies. Producers consistently mention the limiting nature of SEMARNAT and its bureaucracy when it comes to obtaining forest harvesting permits. The shortage then, is attributed to a long bureaucratic process:

The shortage is due to a lack of governmental organization, they do not support the market as they should do. SEMARNAT put tons of regulations, the 20 sawmills
who got the permits have the whole market and impose their prices [Sawnwood broker].

ICOFOSA wants to be an “international class enterprise”, sounds very nice but when they have not solved the issues inside the community… They want to be an international enterprise when they have not even get the SEMARNAT authorization for their forest harvesting [Local researcher expert in Rural development].

The factors that diminish competitiveness to producers are SEMARNAT regulations, subsidies, taxes, the exporters does not pay IVA (Value-added tax), intensive plantations, agrochemicals and interest rates [Forestry NGO representative].

Those factors seem to be reducing competitiveness in the industry, especially when time delivery to customers is at risk because of slow administrative processes.

The limitations are the SEMARNAT regulations, they should have a more open mentality because their job is not to block a Mexican market but to find solutions. Bureaucracy slows down the business. In my case, they hold my permit to sell for a year… I had all the requirements, I was starting, and that messed me up for a year to pay rent, employees [Sawnwood broker].

On the other hand, the local demand has not been satisfied by national supply and the current Mexican trade balance is in deficit. The apparent consumption is increasing while the national production is decreasing:  

This crisis is not because of the international markets but because the internal demand has not been satisfied. This idea of fragmenting the sector: the raw material in one side [for CFEs], the transformation relying on privates companies, and the marketing in hands of the government makes difficult the response capacity of the sector, because it is fragmented in a diversity of interests [Forestry NGO advocate].

This difference has been covered by imports. From the manufacturers interviewed it is perceived that many private companies have switched from production to distribution operations and is not common that those who stay in manufacturing are increasing their consumption of imported, better graded and dried wood.

It is not possible to compete with plantations wood; they do not have the costs generated by the forest management [communitarian silviculture]. If you go to the market thinking so, they will eat you [Natural resources NGO representative].

The Chilean wood comes dried and at very attractive prices. [Furniture high-end manufacturer].

This trend is directly affecting CFE producers since they see more competition for sawnwood. The following stage of the value chain, transformation, is higher taxed and regulated. The industry policy for forest products is designed to promote extraction over
transformation. In this context, ICOFOSA furniture factories have fewer incentives to perform than its business units.

We are now in a situation where […] it is not possible to reach growing deficits in the trade balance, in the internal demand, shortage of supplies, in yearly reduction of harvesting permits. We need a minimum level of development [Forestry NGO advocate].

As stated by Ribot (2003) democratic decentralization is a promising means of institutionalizing and scaling up the popular participation that makes community-based management effective. However, most current “decentralization” reforms are characterized by insufficient transfer of powers to local institutions and do not represent and are not accountable to local communities (Ribot 2003). For the forestry public policy in Mexico the democratic decentralization is far from the basic requirements of decentralization power transfers and accountable representation:

The Oaxacan government sometimes does not understand that a more decentralized and participatory policy is possible, they feel that if someone organizes for something it is against them […] It is politically incorrect to recognize their inability to recognize a mature relationship…is like this: when someone reaches a certain level of organization, the (government) blocks them. The government generates internal conflicts to make them weak [Forestry NGO advocate].

A partial explanation is that many central governments fear, and therefore block decentralization (Ribot, 2003). By preventing the significant power to local democratic bodies, or transferring to local agents who are only accountable to the central government, they prevent decentralization from moving forward.

Ok, just recently there is a trend to decentralize but not in a democratic way, the only thing is decentralized is the corruption. I think it is very clear now, the CONAFOR Committees, yes, are the spaces to discuss their conditions, their operative rules, to set goals, to speak, to take notes but their only benefit is to come to Oaxaca City[…] is an authoritarian decision. The operational rules are imposed, the numbers of permits established, the surface under management is decreasing, and decreasing. Because it is a non-democratic decentralization [Forestry NGO advocate].

The central government plays a key role in effective decentralization. Decentralization is not about dismantling the central government, instead this strong central government is given the legal framework but it has to call for collaboration between central and local governance (Ribot, 2003).

Why don’t we democratic-decentralize instead… maybe we generate employment, maybe we reduce a little bit the migration, maybe we find less people making pressure in the cities, in the frontier, the Americans can get interested. In the energy
production, in the wood and pulp production… there are so many things that can
be done [Forestry NGO advocate].

The current strategy of going out with the larger ones [CFEs], of taking care only
of the best 5, for la crème de la crème and neglect the bulk of the CFEs that are in the
level 4 and 5. Of course, in terms of covering the raw material supply for the
industry, makes sense… instead of losing time skimping here and there… but in
terms of Forestry Development of “developing the productive potential of the
countries' forests in a sustainable way” [As stated in the Forestry Law] is not the
best strategy. The key is to spread out the resources by allocating monies to the
small ones [Forestry NGO advocate].

It has been suggested that a regulatory framework for the forest public policy should be
accompanied by economic factors:

The State government has not been interested in developing the sector. For the
tourism industry, the highway was constructed, and then the economy started
developing around it. For the forestry sector nothing like that has happened and
there is a huge potential [...] It would be different if they said: Ok, they need
roads… we do roads, then we get 5 billion from CONAFOR [...] and the sector is
generated. How much has ProArbol [Forestry program for reforestation] in roads
and nurseries construction… they just do workshops, not even planned plantations
[Forestry NGO advocate].

There is a demand for a forestry policy that facilitates the market instead of messing
the producers… currently the focus of the forestry policy is on reforestation
instead of enhancing the producers. In 2003, the budget corresponded to a
National GDP of 1% [...] Some of the programs are PRODEPLAN for
plantations, PROCOREF to reforestation, with 40-50% and PRODEFOR for
forestry development… [Forestry NGO representative].

The current forest policy for CFEs is allocating resources to the larger ones, within a
rationality that by supporting the most developed, the rest will follow in a multiplicative
effect. This strategy may fall in the trap of believing that industrialization in high scale is the
only solution for satisfying national demand:

It has been an error to stereotype. Always the same examples: Novec in Quintana
Roo, Ixtlan, San Pedro el Alto in Oaxaca, el Balcon in Guerrero and San Juan
Nuevo in Michoacan. The critics will say: yes they are five, and where are the rest
of them? Seems like there is not more… of course there are!, there is a bunch of
them… here is the problem, that they tend to stereotype, to reduce it… “everyone
has to be like Ixtlan, or San Juan Nuevo”, and then they all want to make their resin
factory and … not all of them are in the same condition as Ixtlan is. The high
government employee’s talk about cloning the experience… what for? to spoil it
[Forestry NGO advocate].

There is a reduced number of those frequently used as examples to demonstrate the
competitiveness in the industry:
There are only two communities in level 5 (PROCYMAF II classification) San Juan Nuevo and Ixtlan... and ICOFOSA. Then, in the 4th level, are the 5% of all the communities along the country. The problem is that most of them are in the level 1, the one of those communities that cannot afford to exploit their own forest, they are renters or in other cases they sell their forest, they are not generating scale economies [ICOFOSA ex-representative and current manager].

Conversely, the emphasis of CFEs forest policies might need to adapt to a dynamic, plural sector:

We have all the range, in one side those as Ixtlan who have been doing it very effectively... but Sierra Juarez itself there is a wide range of different things, there are ones very successful, others surviving and finally those renting their forest to be exploited [Forestry NGO advocate].

Talking about the development of the CFEs, we can see that many of them do not have roads, only their forest [...] or they do not have the feasibility study. They are at the level of those who only have roundwood. Once they have harvest limit cuts, then they are able to sell, use, invest in roads, but there are also the ones who have nothing. In the second level there are the companies that already have their sawmills. After, those who have lumber and those who dry it, add value. Finally, the ones producing furniture. The largest amount are in the first level because of production volumes [ICOFOSA ex-representative and current manager].

The majority of CFEs exist in subsistence economies. As an example, there is a grassroots case of a decentralized community that is satisfying the local demand out of an industrialization strategy by creating a well defined regional carpenters cluster:

In Trinidad, the money is better distributed. There are 27 carpenter workshops. They produce good furniture, using the mechanic-man, the blacksmith. Is a Little town with well distributed money. For me, Trinidad is a true example of what the communal enterprises should be... in three years, Trinidad will be a model that gets ahead [Local imports wholesaler]

As an effort to gradually professionalize the diversity of CFEs, the current PROCYMAF shares the vision of social capital enhancement:

It is the program with fewer resources in CONAFOR. Although since 1997 the number of projects has been reduced, nevertheless the amount of money has increased [PROCYMAF business consultant].

PROCYMAF supports the productivity and professionalization with the communitarian organization, by planning and environmentally restoring: It has three components: 1) Social and Human Capital enhancement, 2) Actions to mitigate Climate Change, 3) Forestry investment and management for timber and non-timber forest products... to identify the economic viability, profitability and rotation levels, technical studies supporting CFEs, technical studies about plantations and resources use 4) Conservation and restoration, 5)Forest administration with a better result orientation, to legalize CFEs and it enhancement [PROCYMAF business consultant].
Some of the roadblocks resulting from the small budget seem to be lack of further monitoring:

In multiple times, the community enhancement fails because of lack of following through [PROCYMAF business consultant].

An overall balance of the regulatory framework suggests that it has not been able to increase the industry productivity, satisfy the national demand or improve equity and justice for local people:

In 25 years, communities have administered their own resources, and nothing has changed significantly. There has been a lot of marginalization, poverty, also high levels of malnutrition. In Latuvi [community of Mancomunados] the population has been reducing over the past 12 years, the last time I was there they had one classroom less at school. Meaning, their forest industry is not being able to retain the population in their hometowns. The indicators of malnutrition, high migration levels, marginalization index have not changed… someone said [as irony]: We’re poor but Sustainable [Local researcher expert in Rural development].

In general terms, the potential of CFEs to become competitive has not been realized [ICOFOSA representative and CFE division manager].

There are opportunities for policy-makers to rethink current strategies and redirect efforts to make a dynamic sector:

Time is required to allow the maturity of communitarian process (PROCYMAF, Final Inform 2003).

The CFEs are developing, there are still lots of things to get done [Ixtlan’s key customer].

4.3.2.4 Purchase policy from industrial forestry

As reviewed before, for private companies ejidos and comunidades are not trustworthy partners.

is the lack of trust…ideally during times of crisis we should be buying nationally [Furniture manufacturer].

This lack of trust comes along with the implicit idea that communities are not able to manage their own resources. The 1986 Forestry Law was intended to control one of the
most fundamental axes of competitiveness in the wood forest industry: the supply
provision of raw material to guarantee security to the manufacturing industry.

The manufacturer buys the wood, the raw material, but if there are no supply
conditions… would it provide good industry? Maybe not, because there is not
security [Marketing forest products faculty in Mexico].

Until nowadays, the forestry policy has not succeeded in fulfilling the market gap in the
value chain in between the large number of community producers and private
manufacturers. The market need of a larger number of long term contracts has faced a
barrier of needs understanding between privates and communities. Most CFEs do not
know the specifications the manufacturers are looking for:

I would like to buy all my wood in Mexico but it does not have the quality that I am
looking for: cleaner, without knots, first class for moldings. The good quality wood
from our country is not here, producers know that is better to sell it internationally
than sell it in Mexico where is better paid. [Furniture manufacturer].

There are many intervention policies that could have the potential to increase the
competitiveness of the industry such as the enhancement of an accurate classification
system and quality control to show the real value and high quality in southern Mexico
(Zabin, 1993).

Hopefully an initiative of wood quality can be started because if it is not well
packed and sorted, it starts to degrade; instead if it is well dried it impacts on costs
and in competitiveness as a result [Furniture high-end manufacturer].

This initiative could benefit both the public and the private sector and, initially could lead
towards secure transactions and long term development of the trust relationships among
the private and public industry.

In the past, some members of the Wood Chamber of Oaxaca have pressured the CFEs to
reduce the price per standing tree. Instead it could be more strategic and intelligent to
promote state and federal policies to increase the efficiency and reduce the cost of
production of CFEs. To control a diminishing market is less useful (Zabin, 1992).

The Forestry Plan 2025 considers the interest of the private entrepreneurs reducing
bureaucratic regulations and providing more contractual security to the common pool
investments between ejidos and the private sector. It also underlines the need to make
contracts with private industries even if limited to short periods of time (Muñoz-Piña,
2005).
4.3.2.5 Illegal logging and forest certification

The expectation that higher awareness in consumption could lead to open the market for FSC certified wood (Mcqueen, 2008) has faced the reality of the developing world: lack of consumer education and illegal logging competition.

I do not expect FSC to be marketable in Mexico for the following 10 years (Muebles Placencia CEO, personal communication 2009).

The furniture buyers know nothing about certification. There is no monitoring regarding the certification-sales training [...] people do not know what certified means, they think is about being legal [...] certified for good management? They say: Yeah... it has been well handled, without any problem [Forest Agency employee].

Moreover, some people in the industry have wrong references about FSC thinking that it refers to wood quality and source of origin:

The forest certification guarantees quality and clarifies the wood origin to get better productivity [Furniture manufacturer].

Currently the buyer, national retailers, and consumers of timber and furniture tend not to demand products with social and environmental credentials. The market is ruled roughly by species, price and timber quality (Macqueen, 2008).

In Mexico certification is not a requirement to sell, there is no such consumer education so that they demand furniture from certified wood. It does not add value to the product, there should be other variables that actually are, in the case of the communities [Ixtlan’s key customer].

Considering the price-orientation of the market and the competition from plantations, commercial wood from illegal logging is still a prevalent practice:

For example if a board costs 1260-1360 pesos coming from legal sources, illegal wood can cost 40% below that price [ICOFOSA ex-representative and current manager].

... in Mexico, the cost of reforestation (legitimate forestry) cannot compete with costs of illegal wood [Furniture high-end manufacturer].

It seems that only when communities perceive a premium value for being certified they might be looking for this mechanism. On the first phase of FSC implementation, the communities were seeing certification as a way to improve their value, now the question is if FSC procedures allow maintenance of certification:

In 2000 when we bought the idea about the certification, we have been told that the wood will be appreciated but nobody asked me for it... not even one of my
customers asked me for it. It has been very costly, regarding the last evaluation: The only thing is giving me, is more work [ICOFOSA representative and CFE manager].

Adding to the researcher’s observations of current Rainforest Alliance efforts to maintain the certification, it is suggested that unless economic benefits are found, it is highly possible that this mechanism will be rejected in the communities.

It is required to create production incentives, FSC is not positioned in the market yet. A premium-price for FSC products is being proposed. FSC is not positioned in the market yet. There are not currently conditions to do it, and there is lack of resources and personnel to make broader strategies [Forestry NGO representative].

During Expomobiliario [furniture tradeshow], the Civil Mexican Council for the Sustainable Silviculture (CCMSS) took advantage of the place to discuss with producers about a premium-price strategy to propel to the national industry [Forestry Agency employee].

Even when the new green government’ position and it call-for-tenders, the communities do not sell due to the lack of position of FSC…. The communities do not see the certification as a competitive advantage [PROCYMAF business consultant].

Conversely to income generation in the open market, FSC certification has been useful to compete for governmental purchases and recognition, several interviewees agree on this:

The idea of being sustainable has been used to be acknowledged, to be authorized, to win prizes about reforestation [Marketing forest products faculty in Mexico].

The certification has to guarantee a buying guarantee between the producers and the market. It has favored with governmental buy guarantees [PROCYMAF business consultant].

We are getting to a point where if the government wants to change the furnishing, they have to do it by introducing certified furniture but this should be less expensive [Forest Agency employee].

Public purchases such as the agreement from the federal government to buy its 80% office furniture from community industries [Researcher in international public policy issues].

Only some CFES have seen externalities from the certification:

The indirect benefits of the certification are: a) being prior candidates to the federal government and NGO funds. b) Guarantee benefits to the credits assignment. The governmental purchases have to do with the demand for certified furniture, just as happened with Ulises (the state governor) and afterwards the market comes, otherwise this is not going to work. CFES are emergent enterprises, in Oaxaca its startpoint has been related to the IEEPO contract [International NGO representative].

It seems that the legitimacy of certification goals are a common concern, not the certification itself. The consumption education is a common responsibility not limited to FSC then, the responsibility to its acknowledgement is an ongoing debate:
They think that only because of the fact of being certified they should be getting a profit, and it does not work that way [Marketing forest products faculty in Mexico].

It is like the analogy of person who finishes College, goes to his house, shuts himself in his room, hangs his title of Accountant and waits for the clients to come. If they do not offer it, it will not be sold. Producers have had the wrong impression that just because of certification, the economic benefits will come “they think that only for getting it… is never in automatic […] The certification is going to work to the extent that they have a production and commercialization strategy [Forest NGO representative and environmental advocate].

In the furniture retailer, where the end-consumer evaluates different purchasing factors, the certifications should be operating under a marketing strategy, with a clear message to differentiate the product. However, there is a contradiction in the need to educate the consumer. Apparently, FSC Corporate intellectual property-rights are not allowing the company to make use of their logo to promote it:

Inside the same store there are not signals, any place where you can say that it is certified wood. I think that is the part that should be developed; it corresponds to the communities … You enter the store and there is no vision, “we are pro-nature”. There is no way to know it, certification is not positioned […] the communities should push, promote and that when you go to the furniture store you could listen about it [PROCYMAF business consultant].

One the other side, the communities, probably in a paternalistic mentality, point first the government and then the certifier as the key responsible for consumer recognition:

The responsible party to position the certification should be the government [ICOFOSA business unit administrator].

Should be FSC, in every country there are forest policies parallel to FSC, SEMARNAT has recently created a new NOM [Official Mexican Norm], they see it as a business now. It is costing us 4,500 USD per year [ICOFOSA representative and CFE manager].

Besides the right or not to use FSC, a collaborative strategy between government, social and private sector through the cultural industry and media should promote forest stewardship:

They need a strategy able to bring them visibility, where the producer can find the way to show their green interests. In Mexico City should be key place […] Middle and upper class. I think is possible to develop a collaborative strategy with other entities. I have the impression that it has not come from the producer initiative, very important because we are not in the production side, we cannot offer a media strategy if we do not know what we are offering […] how can we promote something we do not see? if ‘there is no product’. As an NGO we can say, “Buy certificated products” but.. where? how much for it?, where is the product? There is
a need to propel synergies […] the certification is not going to work until we have a production and marketing strategy [Forest NGO representative and environmental advocate].

5. DISCUSSION

Community members within CFEs are developing a powerful tool: the ability to participate in communitarian organization leading to their transformation into a self-reliant, fully-functioning community. If successful, they may be able to negotiate decisions which take advantage of their local resources and create income opportunities.

As stated before, it is not possible to create a sustainable industry without a financial return on investment which covers costs and minimum reinvestment, while generating long-term employment. Only after economic security can social benefits create a sense of belonging, inspire younger generations, and improve the quality of life for inhabitants.

The historical process of appropriation, manifested in the struggles against the concession, acted as a bonding force among communities to facilitate their engagement in industry competitiveness. The origins of CFEs and the identity linked to their story might bring answers about the cultural shift from subsistence forestry to long-term industrial operations. After FATAPUX concessions, the land tenure-based forms of political organization gave comuneros the experience and opportunity to create bridging-social capital. They regained leadership and negotiating skills to collaborate with external authorities.

In order for CFEs to differentiate, find their niche, and have access to markets, the composition through levels of planning, organization, bargaining capacity, product quality and distribution power should be studied in each individual community.

Typically, General Assemblies view CFEs as sources of employment and profit-sharing rather than enterprises that must be managed for efficiency to survive. This is the reason why some communities contract more workers from the community rather than reinvesting that capital in the CFE. While most private enterprises aspire to maximize earnings, the community enterprises seek the generation of sources of employment, the conservation of forests, the production of resources for collective benefit and the participation of the comuneros (Alatorre Frenk in Antinori, 2005).
The existing bonding-social capital in CFEs can also create externalities of corruption and mismanagement. In some cases it is easy for powerful figures in the community, known as caciques, to carry out a covert privatization of the enterprise and affect the collective spirit of CFEs.

The General Assembly, in most cases, is traditionally dominated by the most senior members. In Ixtlan this structure has been adapted and young people are incorporated to give them voice in the CFEs administration both as a regenerating practice and as an option to retain younger generations that may potentially migrate elsewhere. Another innovation in their traditional structure has been the Advice Council, which as a technical assistance group is able to evaluate the CFE manager’s decisions before being presented to the General Assembly.

The cargo system has been praised as a living example lost in industrialized countries, but the system can be regarded as a heavy burden for those experiencing it. Traditional structures in Oaxacan CFEs have a good representation in ICOFOSA due to their different levels of management practices. Textitlan is the only community in which the CFE has a manager incorporated into the traditional governance structures. Similar to the Textitlan case, CFEs in Oaxaca are still managed under traditional structures. Thus, the Comisariado administers the enterprise as part of his duties, incorporating the cargo system within a community with unpaid service. Most of the constraints arise from trying to administer a complex industry as an extension of the traditional governance structure. Also, Textitlan is a typical example of a CFE where the governance positions change every three years, so while a general knowledge about logging and forest management is widespread, the enterprise rarely develops expertise.

Cargo system, while an important measure against corruption and centralization, also creates great inefficiencies in enterprise management, with experienced people switching positions and spreading experience through the comuneros. In communities such as Textitlan, conflict may exist between the General Assembly and managers, often because the former may not understand key decisions on personnel, forest management or marketing and may not respect the manager’s authority to manage. Another related issue within social capital is the controversy of the bonding structure of owners-workers. It is difficult for CFE managers, who are CFE owners, to issue orders to employees who are also owners. Moreover, this problem is causing special transformations in communities who have hired outside managers such as the case of Ixtlan and Mancomunados, where the community has
manifested inequalities due to differences in wages. The inability to bring in professional managers from outside the community has hampered the continued development of many CFEs. As an alternative, some communities are starting to place their own professionally trained community members in most management positions in order to internally develop a more competitive business. Most CFEs have severe deficiencies in formal education which results in lack of knowledge throughout the enterprise operation and a lack of skills for handling management, finances, marketing and public relations.

In Mexico, bridging social capital has not been only a grassroots effort; the Mexican government has played a key role, especially during Echeverria presidency in the early 1970s. After the concessions period, giving control of forest operations and sawmills to communities provided *comuneros* with the necessary resources to develop community enterprises.

Due to current political support and overrepresentation of the CFE sector, ICOFOSA might face the risk of becoming a second-level forest community organization with little autonomy from the government. However, the trend can be used by *ejidos* and *comunidades* to augment their negotiation capacity and promote young leadership.

The current contribution of the wood industry to the Mexican economy is still very low: GDP of 17 billion pesos, or only 1% of the economy (ITTO, 2005). The Strategic Forestry Plan 2025 has the goal of generating enough synergy to engage more players and revitalize the sector. This is the reason why when the market fails; the forest industry as any other strategic sector requires governmental intervention. Thus, there is still potential for a forestry public policy with instruments that have distributive effects favoring the communities (Muñoz-Piña, 2003).

However, the intervention manifests tension between approaches. On one side the regulation (official norms, natural protected areas, ecological orders lands, among others), and on the other, the deregulation (decentralization) of the forest activity. While the latter generates low transaction costs for producers and buyers, making it a more profitable activity, the former tries to control illegal extraction and forest services. In most developing countries, regulation comes from the conservationist approach that the forest is better managed under state control (Muñoz-Piña, 2003). Currently, the positive externalities derived from regulations, only imply the potential for environmental services compensation, not that illegal logging is effectively stopped.
The differences in budget support for PRODEPLAN indicates the importance of current forest policy in Mexico. The risk of promoting private forest companies over campesino producers could be a seed of future social problems and inequity issues. The nature of communitarian silviculture based on selective harvesting contrasts (in the best cases) with the market-driven use of plantation management. This can be perceived as a broader State intention to change the land tenure and indeed the competitiveness of the industry towards a more industrialized economy. This action has the risk of ignoring the fact that enhancing the existing attributes of CFEs could have potential for long-term scope beyond its economic value.

PROCYMAF and PRODEFOR, the two programs aimed to assist CFEs, have increased their resources. PROCYMAF seems to be less structured and, although PROCYMAF is a smaller program than CONAFOR, it has been shown that enhancing the human capital of CFEs is a key factor of competitiveness within the sector which will continue to promote and consolidate it as a permanent inclusion within Mexican forest policy.

As stated many years ago, to gain competitiveness, forests stewards need to “find innovative cooperation and association forms between communities and private companies” (Zabin, 1992). To address increasing forest products competition and to enhance the cooperation relationships between private companies and communities, formal associations with private companies can improve production and distribution capabilities.

During the development of this case study, the main issue identified was that the level of business consolidation was weaker than expected. Accordingly, the project evolved from the intention to develop a marketing plan into conducting a case study and explanatory research project. Participation in council meetings and internal company observations proved that the ICOFOSA Board’s vision was not focused on a specific strategy but rather, scattered across the best intentions of the three communities. The need for market information was not clear because the overall marketing strategy was not well defined. The complexity of the decision-making process of TIP Muebles and the integration of marketing strategy from the three CFEs in Oaxaca has affected both competitiveness and performance.

Currently, the TIP Muebles brand is neither positioned nor recognized in the open market. ICOFOSA needs to develop a branding concept that is able to match two dimensions: 1) fulfillment of the needs of the consumer (quality, price, quality, delivery, consistency in
service, and certification) and 2) communication of philosophy, culture and values through the forest.

The challenge of an aboriginal perspective is to build a brand able to reflect two belief dimensions, one of the consumers in an open market and the one of their communitarian culture, language and perspectives about the environment. The perception of tradition and efficiency in the market is transforming the numerous ways in which traditional communities enter the market to compete in the forest products industry.

In the social dimension, communities are promoting a shared-knowledge of management by rotating the political-administrative positions within the community. Identity in the indigenous communities is generally based on the oral tradition. The environmental knowledge is local, collective, and passed down through generations by means of social interaction and learning. Some of the cultural codes are not registered in procedure manuals but in the collective memory, which is the most important intellectual resource among indigenous cultures. This knowledge is the expression of personal wisdom, and of the collective creation or a collective synthesis of culture, the social experiences shared among members of a contemporary generation, the experience of the domestic group and personal experience (Toledo 2006). CFEs are part of the social space where the cultural cores are transmitted through generations, hence the resistance to include outsiders in their decision-making process.

The usos y costumbres tradition while decreasing efficiency from a business standpoint, is having a secondary effect on citizenship creation as an intangible social value. For ICOFOSA, the personnel rotation could be understood a loss of human assets in managerial positions, but as an important factor for social capital investment from the communal point of view.

Even so, to be a sustainable business and take advantage of the market opportunities, ICOFOSA needs to establish a clear business vision along with specific products and markets that will achieve its goals. The business culture that follows, as part of the values and vision, will also be determined by the management style and the communication process. Additional competitive advantage can also arise through leadership in product, process and business systems innovation.
5.1 Further research

The next step that project sponsors could take is to conduct a series of focus groups with CFEs, manufactures and private companies in the sector. Focus groups are group interviews with 6 to 12 individuals to discuss ideas and common concerns. Such participatory approaches to policy analysis provide mutual problem solving, and social learning (Freire, 1970), which are necessary for designing policies by assessing target group needs (Fischer, 2003). The focus groups might shed light on policy implications of the CFEs managerial decisions, their motivations and capacities to diversify, specialize or collaborate, and the constraints and opportunities that affect their management decisions. With this additional information, CONAFOR can engage their participation and decentralize policies, articulate with other institutions and better tailor assistance programs to the needs and interest of the most predominant forestry sector in Mexico, the CFEs.

Further research needs to assess deeper risk of the natural assets of the ICOFOSA venture. The balance between production capacity and forest conditions limits its sustainable expansion. However, empirical research can be done to visualize the future that can be achieved:

[...If you propose [to ICOFOSA] to open 120 to 150 points-of-sale at the national level, to put a distribution center in Mexico City from 10,000 to 50,000 m2 able to distribute the three factories and that this center channel the retailers. To have one in Monterrey and other in Guadalajara at low costs. [...] We took videos about what we wanted, images about points-of-sales. We went to the factories, to take pictures. Instead of interviewing better look for development options. ICOFOSA needs to develop its own points-of-sale, from A to Z, this can be your truly business proposal... to propose them a growing plan for points-of-sale... to listen to them, to write it down, that’s it [Ixtlan’s key customer].

From a marketing standpoint, there is further research to be explored on the basis of business models and strategies for small business forestry that can be adapted to community management to suggest further strategies and models of participation.

Specifically, there is a need to generate information about the Oaxacan market trends for forest products with different degrees of value-added in four categories: Primary products (firewood, roundwood, particleboard, waste), 2) Generic products (sawnwood, graded wood, reconstructed wood), 3) Products of medium value added (frames, flooring, doors, windows) and 4) Products of high value added (furniture, table accessories) (Jack Corbett, personal communication 2009).
From an anthropological standpoint, the breadth of the topics reflects the focus of existing work, but also the lack of systematic inquiry. Absent is research incorporating gender perspective in the analysis of Mexican CFEs and its management. In general within communities, women’s participation in the power structures and decision making of forestry activity is limited. The traditional governance systems and the male industry domination are combined to limit women’s participation with little understood implications and consequences. (Bray et al. 2005)

A fascinating understudied topic of human development is the impact of migration and remittances on family and community survival strategies, changes in their governance systems, and influence on their economic well-being. Lastly, the role of the generational dynamics of these communities is of crucial importance. Social sustainability must go hand in hand with the analysis of environmental sustainability, which leads us to the need to understand how CFEs affect the youth in forestry communities, their access to resources and expertise, and their participation in leadership.

6. CONCLUSIONS

Community forestry, after emerging in developing countries about two decades ago, has grown into a worldwide phenomenon due to evidence of the reciprocal relationship between community involvement and forest sustainability. However government agencies and private industry have been slow to adjust to changes in social capital. In many countries communitarian industry remains a challenge unless government agencies and private industry actively promote community participation in forest management (Lee, 2005).

Because of its contingency, the market cannot have a rational plan that can control the social preferences of consumers. The participation of the State can influence it. Especially in developing countries, there is not yet a pulling force of consumption that is demanding considerable amounts of products with environmental or sustainable credentials. However, consumer education could contribute to establish better wealth distribution by creating awareness of environmental and social concerns.

Some Mexican CFEs are managing industries designed by both grassroots action and government policy over at least three decades. Many CFEs face common disadvantages
such as moderate marketing and design capabilities, high production costs due to lack of training in the operation, high turnover based on traditional governance structures, and lack of management competencies. However, they also offer opportunities for local development such as the generation economies of scale with multiplication effects within the communities, retention of younger generations from migration patterns, and generation of leaderships in the community to negotiate, organize and participate in decisions regarding the use of their natural resources.

There is tension between the traditional governance structures and the modern model of efficiency. The adaptation and innovative strategies of decision-making processes is allowing communities to maintain resiliency and, in exceptional cases, to go beyond the profitability threshold.

Every CFE case has its own dynamic and its own social rationality. To stereotype and create vertical strategies for the CFE sector only provides short term benefits. There is no particular solution for any CFE. To precipitate those dynamics in order to accomplish institutional goals could involve risks and damage to relationships with the players within the communities. Historical mistakes have proven to lead to deep distrust of the business environment surrounding CFEs. The lack of direct trade agreements provides incentives for intermediaries and increases overall costs tied to national forest products and, thus, hinders competitiveness.

The business environment for CFEs in Mexico shows that their forest are currently subsidizing the forest products industry to an unsustainable degree, and that there must be a “reengineering” of the processes of production, investment, and distribution of profits (Bray, 2005). Also to break down the current “vertical nature” of the regulatory framework into a more democratic decentralization, there is a call for action in capacity building, planning and transversal collaboration among different actors of the state, municipalities, private firms, and communities.

Integration of the private sector with CFE producers in a trustworthy relationship is urgently needed if the national forest industry is to gain competitiveness in the current competitive market environment. Both, the CFE sector and the private industry are looking for cost-reduction opportunities and, should take the responsibility to establish a more direct relationship, and organize a trade initiative. Otherwise, the outcome may be a gradual shrinkage of the sector.
CFEs, under the market demands of reducing costs to become more competitive, are facing a structural crisis related to their nature of social orientation and balancing their purpose of bringing social benefits and forest sustainability.

Considering that the goals of rural communities are not necessarily profit-centered, but rather focus on quality of life for their citizens, their concept of business success differs from the capitalistic point of view. The social enterprise and its model of co-operation (even though sometimes the existing power of elite groups generates inequity) seeks the creation and maintenance of sources of employment, the conservation of forests, the production of resources for collective benefit and the participation of the comuneros. A holistic approach between environmental and human well-being could lead to grassroots, local development. However, only by adapting the present to ongoing societal changes and economic demands of the marketplace, will the promise of social, environmental, and economic sustainability be achieved.
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Appendix. A Semistructured interview protocol for Furniture Manufacturers

**Questionnaire 2c: Addressed during the Magna Expomobiliario**
(adapted from “Sample questionnaire for international demand survey in “Distinguising community forest products in the market”, McQueen et al, 2009)

Name _____________________________
Contact number _____________________
Company name and main business (e.g. what product lines from where?).

1. Does your company experience any customer demand (or other drivers) for good social or environmental products? Do you use ‘green’ or ‘relational’ advertisement imagery as a result?________________________________________________________________

2. Does your company have/or plan to have an ethical policy on sourcing product lines (e.g. code of conduct, CSR guidelines, certification, eco-labelling, fair trade)? What market advantage does this give?_________________________________________________

3. Have your ever buy timber/parts or furniture directly from community forest enterprises?________________________________________________________
If so, which has been your experience on it?__________________________________________
Did you felt trust during the exchange?________________________________________________
Which could be your critics about the sale process?_____________________________________

4. What ‘community forest products’ if any do you source, and from where? (I explain what I mean by community forest products). How do they fit into your business plan and ethical sourcing policy?____________________________________________________________

5. Do you see advantages in marketing ‘community forest products’? Has your company distinguished or does it plan to distinguish any such products – and what main challenges exist?____________________________________________________________
Questionnaire 2c: To be addressed during the Magna Expomobiliario (Spanish version)

(adaptado de “Preguntas en ejemplo de la encuesta internacional de demanda “Diferenciando los productos forestales comunitarios en el mercado”, McQueen et al, 2009)

Nombre _____________________________
Contacto ____________________________

Nombre de la compañía o principales negocios (por ejemplo, qué líneas de productos manejan)

1. Su compañía ha experimentado alguna demanda de productos ambientales o socialmente responsables? De ser el caso, utiliza usted algún tipo de promoción “verde” o “relacional” como consecuencia?

________________________________________________________________

2. Su empresa tiene o planea tener una política de compras éticas en relación a la compra de líneas de muebles? (ej. Código de conducta, lineamientos de responsabilidad social corporative, certificación, etiquetado ecológico, comercio justo? Qué ventajas en el Mercado le da ésto?

3. Alguna vez ha comprado Madera/partes de muebles directamente de las empresas comunales forestales.

_____________________________________________________________

Si es así, cuál ha sido su experiencia al respecto?
Sintió confianza durante la transacción?
Cuáles podrían ser sus críticas acerca del proceso de ventas?

________________________________________________________________

4. Qué productos de empresas forestales comunitarias, y de dónde (EXPLICAR EN QUÉ SON LAS EMPRESAS SOCIALES COMUNALES) ____________________________


Appendix B: Focus group protocol for TIP Muebles Consumers

Cuestionario 1ª: (Adaptado de la metodología para análisis del consumidor de Cabra Diseño)

Introducción (10 min)

Gracias por su tiempo

Presentación:
Permítame presentarme, no soy parte de la empresa por lo que puede sentirse libre expresar su opinión.

Estoy interesada en conocer las preferencias de los oaxaqueños en cuanto a muebles. Estoy realizando varias entrevistas, su opinión es una de ellas y es muy importante porque el propósito es ofrecer una mejor oferta en TIP Muebles.

Reglas Generales
1. Hablar uno por uno
2. La sesión tardará una hora y media sin parar
3. Si necesitan ir al sanitario, éste es el momento

Es importante que tengamos suficiente tiempo de hablar. Estoy observando diferentes puntos de vista, no hay respuestas correctas o incorrectas. No nos vamos a ofender por sus opiniones.

PARTE I
Segmentación cuantitativa

Cuestionario demográfico
Llenar el cuestionario

Género
M=Masculino F=Femenino Other:

Edad
Qué edad tiene?
1 De 18-24 4 De 45 a 60
2 De 25 a 35 5 De 60+
3 De 35 a 45

Educación
Nivel de educación más alto?
1. Ninguna
2. Primaria
3. Secundaria
4. Preparatoria/ Carrera técnica
5. Carrera profesional
6. Posgrado o más

Ocupación
1. Profesional
2. Empleado de gobierno
3. Trabajador privado
4. Ama de casa
5. Empleado de la construcción/ Obrero
II. Segmentación

Cualitativa

6. Autoempleado/Taxista/Chofer
7. Ejecutivo
8. Empleado doméstico
9. Estudiante
10. Campesino
11. Ejidatario/Comunero
12. Ganadero
13. Retirado
14. Otro

Ingreso

Aproximadamente y tomando en cuenta cuántos viven en casa, ¿cuál es el ingreso mensual que reciben en su casa?

1. Hasta 1,558 pesos
2. 1,558-3,117
3. 4,675-6,234
4. 6,234-7,792
5. 7,792-12,000
6. 12,000-18,000
7. 18,000-30,000
8. 30,000-45,000
9. +45,000

Estado civil

1. Soltero
2. Casado
3. Viudo (a)
4. Divorciado

Competidores

Cuándo fue la última vez que compró muebles?
Qué tan seguido compra usted muebles?
Enliste 6 mueblerías, en donde haya comprado o pensado en comprar muebles:

1
2
3
4
5
6

Percepciones sobre TIP Muebles

Acerca de su compra en TIP Muebles:
- ¿Cuál ha sido la parte más positiva de su compra en TIP Muebles? (Servicio, variedad, entrega, ambientación, precio, facilidades de pago, etc)
- ¿Cuál fue la parte más negativa de su experiencia con TIP Muebles? (Servicio, variedad, entrega, ambientación, precio, facilidades de pago, etc)
- Le gustaría comprar nuevamente en TIP Muebles? Si No; Por
- Por favor enliste el tipo de muebles y el estilo que le gustaría ver en TIP Muebles

<table>
<thead>
<tr>
<th>Tipo de mueble</th>
<th>Estilo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sillas</td>
<td>M= Moderno</td>
</tr>
<tr>
<td></td>
<td>V= Vanguardista</td>
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<tr>
<td></td>
<td>T= Tradicional</td>
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<tr>
<td></td>
<td>Cl= Clásico</td>
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<tr>
<td></td>
<td>Co= Colonial</td>
</tr>
<tr>
<td></td>
<td>R= Rústico</td>
</tr>
</tbody>
</table>

**Frase descriptiva**

Elija tres opciones para completar la frase “Los muebles de TIP Muebles son …”

a. Hechos de madera maciza  
b. Compuestos de Madera (aglomerados, triplay, mdf)  
c. Triplay  
d. Madera certificada  
e. Madera tropical  
f. Hechos fuera de Oaxaca  
g. Hechos por comunidades  
h. De pino  
i. Baratos  
j. Precios justos  
k. Costos  
l. De buena calidad  
m. Sustentables  
n. Genéricos  
o. Ecológicos

**Mandado a hacer**

Cuántas piezas de muebles de carpintero o a la medida tiene usted en su casa?

1. De 1-4  
2. De 4-8  
3. Más de 8

**Identificación de necesidad**

Qué tipo de muebles usted ha estado buscando sin encontrar en ningún lado? (Para qué necesidades, dimensiones)

**PARTE III**

**Segmentación etnográfica**

(20 min)

**Presupuesto y toma de decisiones**

1. Tamaño de familia

- Por favor, describa qué tan grande es su familia, cuántos viven con usted?
2. Cuántas personas trabajan en su casa?
3. Qué tan grande su casa? Cuántos cuartos tiene? Sala, comedor, antecomedor, cocina integral o no?
4. Propietario de casa?
Muebles
1.-Comprar muebles es como comprar…
2.-Cuándo es tiempo de comprar muebles?
3.-Describa cómo es el proceso de decisión para las compras grandes en su casa?
   a) Cómo determinan la necesidad?
      Hacen un presupuesto antes de la compra? Cómo lo planean?
   b) Compara usted precios y el producto o va a un solo lugar?
   c) Al final, quién decide?
      (Quién revisa el acabado, tapizado, formas de pago, entrega?)
4.-Cómo contribuyen al gasto, en conjunto o cada quien una parte?
5.-Qué tan seguido compra muebles?
   1-5 años
   5 a 10 años
   Más de 10 años
6.-Más o menos de cuánto presupuesto se dispone para comprarlo?
7.- En qué rango prefiere el precio de una silla de madera?
   A) Menos de 300 pesos
   B) De 300 a 600 pesos
   C) De 600 a 1200 pesos
   D) De 1200 a 2500 pesos
   E) Más de 2500 pesos
8.-Usted compra a crédito, de contado, a contraentrega?
9.-A qué distancia estaría dispuesto a viajar para encontrar las características que quiere en el mueble?
   A) De 10 a 15 minutos (Equivalentes en kilómetros)
   B) De 15 a 30 minutos
   C) De 30 a 45 minutos
   D) De 45 minutos a 1.5 hours

PARTE IV
Valores, Actitudes
y Estilo de vida
(20 min)

Llene el cuestionario

Identificación con algún estilo de mueble

-Regresemos a las fotografías:
1.- Escoja tres que se acomoden mejor a sus gustos?
2.- En casa tiene muebles de un solo estilo o acumula estilos?
   -Herencia, vecinos, revistas, television, aparadores
3.- Qué estilo de muebles tiene en su casa y cómo los determinó?
   -Cómo describe el estilo en su casa, cómo fue que llegó a este estilo?
- ¿Cómo sabe usted si un mueble va con el estilo del resto de su casa?
4.- Pide opinión o busca consejo?
5.- Se dice que los muebles dicen mucho sobre sus dueños, usted piensa que hay algo de cierto en eso? Ejemplos

Regresemos a las imágenes
6.- Escoja una que no le haya gustado, por qué?
- ¿Qué hubiera pasado si tuviera uno como éste en casa?

PARTE V
Percepciones sobre TIP Muebles (10 min)

Experiencia
1.- ¿Qué fue lo que compró en TIP Muebles?
2.- ¿Los sigue teniendo?
3.- ¿Cómo le ha resultado?
4.- ¿Ha tenido usted a lgún problema con el mueble?
   Tipo? ¿Qué pasó? Llamó usted a la tienda?
5.- ¿Qué pensaría si tuviéramos muebles como éste (Mostrar)
6.- ¿Qué otras mercancías le gustaría ver en las tiendas:
   Regalos
   Muebles pequeños (y no tan caros)
   Paquetes de muebles
   Muebles individuales
   Accesorios
   Cortinas
   Tapetes

7.- ¿Cuál de estas ambientaciones le gustaría ver en TIP?
8.- ¿Qué tipo de información le gustaría recibir por el vendedor?
   Precios
   Material
   Facilidades de pago
   Dónde fue hecho
9.- ¿Cómo le gustaría que el vendedor le ayudara?
   Pagos
   Entrega
   Información

PARTE VI
Medios de comunicación (20 min)

1. ¿Cómo obtiene la información de sus opciones de muebles?
   - (Dónde busca información?)
   - Usa usted el internet?
2. ¿Qué revistas lee?
3. ¿Qué periódicos lee?
4. ¿Qué estaciones de radio escucha?
5. ¿Qué canales de televisión ve?
Revistas locales requeridas: 
Para mostrar promocionales y campañas

**Mensajes y reconocimiento**

1.- ¿Cómo supo de TIP Muebles? 
   ¿Qué piensa de ellos?
   Material, certificación, dónde están hechos, etc.
   Basados en las categorías pasadas, ¿qué tipo de muebles hacen?

2.- ¿Qué piensa sobre su calidad?

3.- ¿Qué piensa sobre sus precios? ¿Cómo están en relación con otras tiendas?

4.- Alguna vez a visto algún tipo de publicidad de TIP Muebles? 
   Dónde?

5.- Recibe revistas como éstas? 
   (Mostrar) ¿Las conserva?

**GRACIAS!**
II. Percepciones

1. [Image of a wooden table and chairs]
2. [Image of a modern table and chairs]
3. [Image of a wooden chair]
4. [Image of upholstered chairs]
5. [Image of modern stools]
6. [Image of a wooden table with chairs]
Carved Wood Dining Set Catalog

Heirloom-quality dining furniture, featuring meticulous craftsmanship and individually hand-applied premium finishes.
Appendix C. Answers sheet for interview protocol to TIP Muebles consumers

<table>
<thead>
<tr>
<th>ID:</th>
<th>FECHA:</th>
<th>OBSERVACIONES</th>
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### I. Cuantitativa

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<tr>
<th>Gen</th>
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### II. Cualitativa

#### Competidores

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#### Percepciones

+:  
--:

Comprarán nuevamente:  

S  N

#### Estilo de silla

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**Frase:**

1. ( )  2. ( )  3. ( )

**Mandado a hacer**

1. ( )  2. ( )  3. ( )

Id necesidad: ________________________________

### III. Etnográfica

#### Presupuesto y toma de decisiones

1. Tamaño de familia:  viven ( )
2. Cuántos trabajan:  ( )
3. Cuartos:  ( )
4. Propietario:  
   S  N

#### Muebles

_ Es como......._

1. Tiempo de comprar

2. Quien señala la necesidad?

3. Descripción del proceso

   a) Comparación:  (TIENDAS, REVISTAS, PERIÓDICOS, RADIO, INTERNET)

   b) Un solo lugar o va de tienda en tienda

   c) Decisión final:

4. Contribución

5. Frecuencia de compra
<table>
<thead>
<tr>
<th></th>
<th>1-5</th>
<th>5-10</th>
<th>+10</th>
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<td>Presupuesto</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Precios sillas</td>
<td>A. ( )</td>
<td>B. ( )</td>
</tr>
<tr>
<td>8.</td>
<td>Crédito ( )</td>
<td>Contado ( )</td>
<td>Contraentrega ( )</td>
</tr>
</tbody>
</table>

### IV. VAES

1) Más cercano: ________________________________
2) Único estilo: Revuelto
3) Cómo definió estilo: ________________________________
4) Busca consejo? ________________________________
5) Reflejo de dueños: ________________________________
6) Imagen que no haya gustado: Por qué?

### V. PERCEPCIONES TIP

**Experiencia**
1. Mueble: ________________________________
2. Conserva: ________________________________
3. Cómo le resultó: ________________________________
4. Problema?: ________________________________
5. Que piensa de foto: ________________________________
6. Exhibición: ________________________________
7. Cuál ambientación le gustaría: ________________________________
8. Información vendedor: ________________________________
9. Apoyo del vendedor: ________________________________

### VI. MEDIOS

1. Dónde busca info de muebles: ________________________________
2. Revistas: ________________________________
3. Periódicos: ________________________________
4. Radio: ________________________________
5. Canal TV: ________________________________

**Mensajes y reconocimiento**
1. ¿Cómo supo TIP Muebles?: ________________________________
2. Calidad: ________________________________
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>3.</td>
<td>Precio</td>
</tr>
<tr>
<td>4.</td>
<td>¿Publicidad de TIP Muebles?</td>
</tr>
<tr>
<td>5.</td>
<td>¿Reconoce las revistas?</td>
</tr>
</tbody>
</table>
Appendix D. Observation protocol for Furniture retailers and competitors

Time  Date

Observations:

Kind of enterprise  Unique store  Chain  Franchise  Retailer

Further information

Surface m²  Timing  Number of departments

Other Products  Electronics  Tools  Decoration  Kitchen  Laundry appliances

Further information

Number  Clerks  Administration  others

Product's Knowledge management  Poor  Rate  high

Product's Price management  Poor  Rate  high

Store's Advantages Management  poor  Rate  high

Vendors' further inf.

Staff's further inf.

Line management  Kitchen  Other:

Home

Office

Scholar
Appendix E. Open code categories

Table 3.3 Open code categories. 92 items were identified. Some categories are crossed out due to the lack of data to build consistent patterns.

1. adaptation in decision making process
2. appropriation
3. bioenergy
4. business thinking
5. centralized decisions
6. CFEs
7. challenges
8. collaboration
9. imports competition
10. competitiveness
11. concept development
12. corruption
13. production costs
14. counterfeit
15. dedication
16. delivery
17. design
18. design center
19. dilemma tradition vs effectiveness
20. distribution flows
21. distribution power
22. diversification
23. effectiveness
24. ejidos vs privates
25. environmental services
26. exchange
27. exchange rates
28. financial sustainability
29. fiscal policy
30. forest management
31. forest sustainability
32. forestry public policy
33. FSC
34. further research
35. genesis
36. human resources
37. ignorance
38. illegal logging
39. imports
40. industrial purchasing practices
41. innovation
42. institutional support
43. intermediaries
44. internal constraints
45. lack of a linear vision
Appendix F. Mancomunados Harzard. December 13, 2008
Piden al gobierno más recursos para fronte
El director general de la Secretaría de Desarrollo Rural (Se-
deR), Elvis Pineda Márquez dijo que en la Entidad se contaba
con al menos dos mil kilos de trabajo, esto es, maquinaria, es-
tre de sensores y componentes de otros pasados.
Explicó que la factoría genera tres mil empleados directos y
más de mil indirectos y calculó las pérdidas en más de 300 mil
millones de pesos.
"Son esos alrededores de trabajo",
Dijo.
Destacó que en la factoría se elaboran equipos TBF con certi-
ficación internacional por el uso industrial del huso, y el mo-
delo de los diferentes ejes que la empresa proporciona por
la empresa.
El municipio se comprometió a la ciudad de módulo de
procesamiento de papeles que se ubican en la Geho,
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la empresa.
El municipio se comprometió a la ciudad de módulo de
procesamiento de papeles que se ubican en la Geho,
141
LA OPOSICIÓN CAMBIA O SERÁ MAS RECHAZADA

MÉXICO, PAÍS “FUNIDO”, SE ENCUMBRA HACIA EL “CAOS CRIMINAL Y ECONÓMICO”: FORBES

Dan constancia a líder de los burócratas

Las impugnaciones fueron desechadas por falta de pruebas

INFIerno EN ASERRADERO MANCOMUNADO (ROA)

Aseada fue un infierno

Roja

066

TELEFONOS DE EMERGENCIA:
CRUZ ROJA: 516.48.03

“No intervendré”: FCH
Algunas tendrán sorpresa.

LA RIMA NOTICIOSA
LA AGUjA EN EL PAÑAL

Observador de DH, defiende al Padre Uvi

May algo que me podría mojar
hacer Carla Cárdenas dar

Para difundir su palabra

Según Canciller Salinas, la rendición de cuentas hay desde el momento que toma el poder y esto ha llevado a que se hagan dos cosas: primero, que se hagan reformas y, segundo, que se hagan cambios en el sistema político.

Un incendio ocurrió con la fábrica de transformación de madera en el distrito de Xalapa en Hidalgo. Los hombres informaron que el incendio inició cerca de las 03:30 en el centro del área, donde después se encontraron varios vehículos que estaban en medio de la trama.
Las llamas alcanzan los techos.

Miles de horas y media en llegar la primera pila de bonobos.

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Pilas, aproximadamente, fueron utilizadas para salvar el ingenio.

Fuego permaneció en el arranque de la campaña, pero que origino perjuicios del cuerpom, pero a grandes

31 antes de las ideas de personas descubrimientos de soldadura en arranque y la fabricación de una cámara que usa

lento, pero se encontró con encontrar

el percalce que la pila de material coche

que corren las baterías y regeneran no se recarga.

El gobierno municipal de Tepetlaoxtoc y pobladores vecinos en un amigo para tratar de

sobrellevar el alivió, pero la gravedad de los daños es en

imposible superar la magnitud de la con-


El director forestal de la Secretaría de Desarrollo Rural (Sier-

des), Félix Pérez Márquez dijo que en la lucha se encontrarán

al menos dos millones de mexicanos, así como trabajadores

estudia de sentido y caminos de

construcción.

Explicó que la factura ge-

tecnia ya expida directos y más de 500 incendios, y calcula

los daños en más de un mil

millones de pesos.

"No fueron días de triste-

cía", señaló.

Dado que en el lucha se

realizarán varios incendios, con

la institución internacional por en los países de los bosques, y del

municipio de la referida enti-

dad de la entidad.

Mencionó que la administra-

ción estatal, a pesar el esfuer-

zo por mantener un costo con los Pueblos Moisés

nacionales para la entrega de

millones de pesos, pero se destacaron a la ampliación de la filial.

Pérez Márquez que los

Pueblos Moisés representan

un esfuerzo de gobierno con sus
de los bienes de los bosques

produc gubernamental para

los incendios, donde la empresa pro-

ducencia ha sido, tal vez, el más

satisfactoriamente.

Así, ha sido el presente

2013, dirigida a que las fuerzas

afectadas las enormes


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Appendix G. Operative financial model for retailers. Developed by Javier Pérez, RA consultant.

MODELO OPERATIVO FINANCIERO PARA TIENDAS CON INDICADORES CLAVE

**1. Ventas/m² (Utilidades netas/m²)

**2. Total Costos/m² x Ventas/m²

**3. Ventas-Costos/ Ventas

**4. Costos/vendedor / Ventas/m²

**5. Mecanizado, proporciones m² / Ventas/m²

**6. Otros indicadores comerciales

*Indicadores de inversión

*Indicadores operativos clave

Otros indicadores comerciales
1. Índice de satisfacción del consumidor
2. % on time delivery
3. % on complete delivery
4. % Costumer returns
5. % Defects
Appendix H. Operative financial model for factories. Developed by Javier Pérez, RA consultant.
Appendix I. Key indicators description and conceptualization. Developed by Javier Pérez, RA consultant.

<table>
<thead>
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<th>Number</th>
<th>Description</th>
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<th>Frequency</th>
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<td>Gerente de ventas</td>
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<tr>
<td>2a</td>
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<td>Relación de personal</td>
<td>por ciento</td>
<td>Estudio de la productividad de TP</td>
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<td>Estudio de inventario</td>
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<td>Ventas / Vendedor</td>
<td>Porcentaje</td>
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<td>Mensual</td>
<td>Gerente de ventas</td>
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<td>Porcentaje</td>
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<td>Gerente de ventas</td>
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<td>Mensual</td>
<td>Gerente de ventas</td>
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<td>Venta al por menor / Total de ventas</td>
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<td>Estudio de la productividad</td>
<td>Mensual</td>
<td>Gerente de ventas</td>
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