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Modeling corporate sustainability strategy

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ABSTRACT

This study uses empirical information to demonstrate the analysis of a corporate sustainability model and presents five leading Mexican companies as illustrative examples of sustainable, long-term firms whose strategic plans incorporate three views of sustainability: market-industry, resource-based, and institutional-based. By considering all three domains, companies better position themselves to adapt to the restrictions imposed by the economic, social, and environmental systems. Competitive success requires a constant awareness of the conditions under which the company may lose or generate value, and a company's competitiveness reflects its long-term performance and relationships within the industry and with competitors. Sustainable companies demonstrate successful long-term performance amid the restrictions imposed by economic, social, and environmental systems by developing a strategy that sustainably generates and captures value into the future. Sustainable practices are central to a company's business model and survival because a strategy of targeted, enduring actions affords competitive advantages.

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1. Introduction

A company's competitiveness reflects its long-term performance and relationships within the industry and with competitors. A competitive company is constantly aware of the conditions required for value generation. A company must understand how to generate sustainable value through a strategy that meets organizational goals. According to Thompson, Peteraf, Gamble, and Strickland (2012), strategy consists of the competitive movements and business management employed to grow the business, to attract and satisfy consumers, and to successfully compete through operations that work toward organizational targets. For Porter (1996), strategy represents company activities that fit together or a theory for creating competitive advantages (Barney & Hesterly, 2012). When this strategy is accompanied by activities that create, generate, and capture value (Osterwalder & Pigneur, 2010), the company becomes more competitive. A strategically directed model can create a firm that is competitive in the long term.

The emphasis on long term is significant as sustainability implies continuity; however, a broader term for sustainability is necessary to include environmental sustainability, social endurance and economic stability. Therefore, sustainable competitive advantage implies permanence amid the restrictions imposed by economic, social, and environmental systems. For example, the production capacity of a plant is an economic limitation, individual preferences for goods and services represent social limitations, and scarce inputs such as energy, water, or

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waste management processes represent environmental limitations. These restrictions, when not considered within the strategy, may limit firm competitiveness and, therefore, performance. Neglecting to consider social, environmental, and economic restrictions is similar to assuming that business decisions are linear.

Conceptually, corporate sustainability stems from the broader concept of sustainable development and represents a construct parallel to corporate social responsibility (Montiel, 2008). For Gladwin, Kennelly, and Krause (1995), sustainable development is the process of achieving human development in an inclusive, connected, equitable, prudent, and secure manner. For Shrivastava (1995), sustainability with an environmental emphasis achieves total quality environmental management, sustainable competitive strategies, technology investment, and corporate population impact control. For Starik and Rands (1995), sustainability is the ability of one or more entities, either individually or collectively, to exist and flourish for the long term. Bansal (2005) introduces the concept of corporate sustainable development based on three principles: economic, social, and environmental integrity (Bansal, 2005; Shrivastava, 1995; Starik & Rands, 1995).

Given that sustainability practices are key to a company's survival, targeted sustainable actions within a company's strategy are likely to become a source of competitive advantage. This approach is aligned with a business case for corporate sustainability that includes several perspectives (Boons & Lüdeke-Freund, 2013; Carroll & Shabana, 2010; Schaltegger, Lüdeke-Freund, & Hansen, 2012). One perspective associated with corporate social responsibility is firm attempts to influence societal expectations for firm behavior. This perspective, usually associated with stakeholder management, requires that companies act responsibly toward consumers, investors, and the government and

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responsibly manage internal firm affairs by motivating employees in ways that create value for the company (Eesley & Lenox, 2006; Freeman, Harrison, Wicks, Parmar, & de Colle, 2010; Henriques & Sadorsky, 2008).

Other approaches suggest that environmental performance and financial performance correlate. This perspective is embodied in the literature on financial and environmental performance (Clarkson, Li, Richardson, & Vasvari, 2008; King & Lenox, 2001; Orlitzky, Schimdt, & Rynes, 2003). The results of the literature suggest that a firm that works actively to improve environmental performance also achieves positive financial performance over time. Other approaches to competitiveness and sustainability address the strategic exploitation of resources and capacities. This approach is embedded in the resourcebased notion of the firm (Barney, 1991), the natural resource-based view of the firm (Aragón-Correa & Sharma, 2003; Hart, 1995; Hart & Ahuja, 1996), the complementary assets (Christmann, 2000), or the resource-dependent perspectives of stakeholders (Kassinis & Vafeas, 2006; Sharma & Henriques, 2005). Another perspective suggests that institutional conditions to act in socially responsible ways modify firm behavior (Bansal & Clelland, 2004; Campbell, 2007; Hoffman, 1999; King & Lenox, 2000).

All these approaches combined into a model for sustainability may prove complex as these schemes interplay among them. According to Epstein and Roy (2001), senior managers recognize the importance of formulating a strategy that includes corporate social responsibility but experience difficulty in execution. Decision making involves multiple levels of analysis, which a singular framework may not capture and explain (Delmas & Montes-Sancho, 2010). Aligned business and sustainability strategies reflect the nature and extent of the opportunities associated with sustainable development with respect to the creation of value for the firm.

Social, economic, and environmental constraints are not simply analytical concepts but represent drivers that a firm can use to align the business model to business strategy. Short-term adjustments to meet these constraints, although expensive, can become differentiators that, in the medium to long term, increase firm competitiveness.

This study characterizes corporate sustainability as the possibility to create value through executed strategies that consider economic, environmental, and social restrictions in line with Bansal's (2005) work. This study builds on previous research to construct a model for corporate sustainability. The study explains the main strategic domains presented in the literature and acknowledges the significance of addressing the restrictions imposed by economic, societal, and environmental factors. Section 1 discusses the theoretical development and presents the model for corporate sustainability. Section 2 discusses sustainability practices in Mexican firms and uses the empirical results of a survey performed in Mexico to demonstrate perceptions of the three strategic domains by Mexican firms. Section 3 illustrates how a selection of public firms in Mexico have applied the model for corporate sustainability by examining the firms' sustainability strategies. Finally, the study presents a conclusion and suggests future research to enhance the model.

2. Theory development: a model for corporate sustainability

A model of corporate sustainability will generate and capture value subject to the limitations imposed by economic, environmental, and social systems. A company strategy must consider the long term to ensure competitiveness. This study argues that companies can better address restrictions when a business strategy considers three domains: 1) competitive strategy, in which strategies for differentiation and costs are the main drivers, 2) the vision for firm-specific resources and capabilities, and 3) institutional theory. The incorporation of these three approaches into the business strategy will enable the firm to effectively pursue its goals (Peng, Sun, Pinkham, & Chen, 2009). Additionally, sound leadership with a decision-making approach based on corporate

governance represents a business model for sustainability that indirectly addresses stakeholder expectations. Fig. 1 depicts the firm's strategy.

A strategy that incorporates all of these elements can create a company with faster reactions to environmental changes. Reduced exposure to risk through a long-term vision generates value. A discussion of each element follows.

2.1. Market-based view

The first element of competitive strategy is based on cost leadership and the company's differentiation or benefits (Porter, 1985). The element is evident from the laws of supply and demand: the catalysts for individual preferences and the generators of operating margins. Demand represents the perceived benefits customers acquire from the goods or services produced by the company. These perceived benefits represent differentiation and can be measured by the distance between the availability of payment and the price paid. Thus, the company that offers more perceived benefits than the competition will grow and generate more value. Sustainability, from the perspective of differentiation, is an element that enhances firm attributes and achieves differentiation to improve value.

Competitive strategy, however, involves company exploitation of the average cost of operation through strategic actions that reduce this cost. By comparing the average cost with the market price, the company obtains an operating margin. With standardized merchandise and a price generated by the market, the company is more competitive if higher margins are the result of lower average costs. By reducing costs, a firm can lower prices so that consumers perceive more of a benefit when choosing that company. This ratio of benefits less cost provides stronger financial performance and, over the long term, sustainable competitiveness. The literatures that address this issue indicate that a company that improves its environmental performance also achieves positive financial returns over time (Albertini, 2013; King & Lenox, 2001; Orlitzky et al., 2003). Porter and van der Linde (1995) posit that lower pollution should mean higher productivity because pollution is a form of wasted resources (Porter & van der Linde, 1995). Whether a green strategy is cost-effective is a question that stems from this approach; research into the subject has not produced a definitive answer (Orlitzky et al., 2003), but has shown that a more relevant question is understanding how and when a green strategy is cost-effective (Howard-Grenville, Nash, & Coglianese, 2008; King & Lenox, 2001; Margolis & Walsh, 2003; Siegel, 2009).

2.2. Resource-based view

A second element in the model of corporate sustainability is the vision of resources and capacities (Aragón-Correa & Sharma, 2003; Barney, 1991; Hart, 1995; Hart & Ahuja, 1996; Russo & Fouts, 1997). According to this vision, the company proposes the use and exploitation of strategic assets, resources, and capacities based on tangible and intangible assets to remain competitive. This position considers a company's resources and capacities to be accretive when they are valuable, rare, inimitable, and adaptable to the organization in a purely entrepreneurial context or as an extension of natural resources (Hart, 1995). Strategic assets are subject to the biophysical limitations imposed by the environment itself. Additionally, Hart (1995) posits that biophysical limits imposed can be a source of competitive advantage. One way to obtain new capacities and resources based on the limitations of natural resources is to develop a sustainable vision for the company. Companies may acquire advantages by reducing waste, designing new products and technologies, integrating stakeholders into the decision-making process and, most significantly, developing a long-term vision (Hart, 1995). This is the clearest link between ecology, the environment, and the company and it interplays with the market-based view through cost advantage and conservation strategies. Additionally, businesses

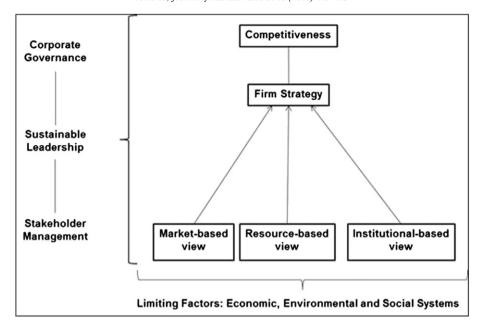


Fig. 1. Conceptual model of corporate sustainability limited by economic, environmental, and social factors and the interplay of sustainable leadership, corporate governance and stakeholders' management domains.

that depend on natural resources and that are subject to the varying availability of natural resources are vulnerable, such as mining and manufacturing companies or food and beverage producers. This vulnerability ensures the generation of value if strategically managed. In summary, the sustainability of the business requires the creation and application of strategic actions consistent with environmental limitations encountered over time. Additionally, the resource-based view of the firm supports complementary assets (Christmann, 2000) or the resource-dependent perspectives from stakeholders (Kassinis & Vafeas, 2006; Sharma & Henriques, 2005). These perspectives imply that resources and capabilities become strategic assets that achieve a competitive advantage stemming from within the firm. This study addresses strategies that exploit resources that, considering the limitations and restrictions, generate firm value.

2.3. Institutional-based view

The third element is institutional theory, or new institutionalism. This theory has recently been explored in the management literature by Peng et al. (2009) and has multiple implications for business and the environment (Hoffman, 1999; Hoffman & Georg, 2012; Hoffman & Ventresca, 1999). Peng and colleagues, however, propose that competitive advantages stem from the institutional limits established external to the company. This study establishes institutional vision as an indispensable phenomenon for understanding corporate sustainability. Based on the classic definition, institutions represent the precepts, laws, rules, codes, customs, and traditions that determine behavior. Institutions establish the limits within which individuals, companies, and governments may act. The main attribute of institutions is that they lend certainty to business transactions and reduce transaction costs. Therefore, the institutional theory of the company indicates that the regulatory or cognitive framework of the environment establishes the limits within which the organization moves, formally and informally. The company must have an institutional vision to be sustainable because firms are subject to regional, national, international, and self-regulatory mechanisms that guide conduct. The capacity to adapt to institutional conditions generates long-term strategies that generate value.

2.4. The stakeholder's domain

Another element linked to the previous three elements and considered in the corporate social responsibility literature is the stakeholders' approach (Harrison & Freeman, 1999). This domain addresses the various groups with a stake in the company including direct and indirect stakeholders such as neighbors, employees, investors, financial companies, government, and media. These stakeholders can create pressure on the firm to act according to their interests, provide the company with resources such as concessions, labor, information, and supplies, or even impose costs through direct or indirect pressure from the media, NGOs, and neighbors (Clarkson, 1995). Stakeholder management entails deliberate actions to manage stakeholder concerns while simultaneously pursuing company objectives (Eesley & Lenox, 2006; Freeman et al., 2010; Henriques & Sadorsky, 1999; Hoffman & Georg, 2012; Oligastri, 2009) and that of employees because sustainable competitive practices require human resources to align with firm strategy. Investing in individuals to create cooperative relations, and employee training leads to greater commitment and increased trust that lowers costs within the firm (Lyman, 2008). The stakeholder management approach requires consideration of direct and indirect firm relations to find nonmarket strategies for the generation of value.

2.5. Sustainable leadership

The sustainable approach to leadership is composed of building ties with communities, collaboration among stakeholders, and promoting long-term sustainable values. This is in contrast to non-sustainable leadership, which adopts a short-term view that can risk sustainability. Sustainable leadership leads to superior business performance and resilience (Avery & Bergsteiner, 2011). The three strategic-based views incorporate sustainable leadership principles in different forms because these principles steer the organization toward corporate sustainability. Although strategic leadership is broad in scope, strategic execution focuses mostly on the institutional-based view in the form of soft regulation based on informal institutions and hard regulation based on formal institutions. These regulations create the behavior norms of people and firms. Leadership actions bind and perform

accordingly. For instance, ethics and responsibility are a set of institutions that influence firm behavior. Corporate governance causes institutions to comply with different regulations, soft and hard. The set of rules and norms that drives corporate behavior is often what drives firm success. Sustainable leadership practices, when efficiently applied, create informal institutions embedded in firm culture. These informal institutions facilitate the firm's sustainability, considering that the long-run vision is one that encompasses limits and boundaries that only a leader can overcome. Sustainable leadership practices are a useful approach. Internal and external stakeholders will pressure the firm to pursue sustainable practices, and the leaders must consider how to create shared value (Porter & Kramer, 2011).

Leadership practices reflect the resource and resource dependentbased views. The practices further separate into three main approaches within the resource-based view: practices that address internal resources (for instance, employee-oriented practices), corporate governance practices, and practices concerning external stakeholders.

2.6. Corporate governance

Although corporate governance is unique to each company, some universal elements exist. Corporate governance controls the internal and external actions of managers, employees, and external business stakeholders. The corporate governance framework also outlines the obligations, privileges, and roles of board members or directors to ensure that these individuals do not exploit company resources. Companies may also include the role of organizational shareholders and their corporate voting responsibilities in the framework. Establishing a sound corporate governance framework provides tools to enhance internal capabilities to face long-term sustainability challenges.

The three subsets of strategic views are resource dependent – leadership, stakeholder management, and corporate governance. The three views relate externally to the market-, resource-, and institutional-based views and to successful firm strategies that meet economic, societal, and environmental domain requirements. The next section uses empirical information from Mexican firms to examine the drivers of sustainability practices. The study applies the corporate sustainability model to discuss the link between the drivers and the model. The study provides a summary of the main research findings from the Mexican firms with respect to the environment and sustainability. Finally, the study provides information and particular actions from several firms that support the ideas for the sustainability model.

3. Theory in practice

3.1. Mexican firm's sustainability practices as reported in the literature

Environmental and social responsibility case studies and small data analysis at the corporate level in Mexico suggest internal and external pressures to adopt sustainability and corporate social responsibility initiatives. The majority of these initiatives address philanthropy or firm reputation as the primary drivers of such activities (González-Lara, 2008; Weyzig, 2007). However, other types of empirical analysis at the plant level suggest that environmental regulation is central to environmental management initiatives within Mexico.

Dasgupta, Hettige, and Wheeler (2000) study the effects of regulation, plant-level management policies, and other factors on the environmental compliance of Mexican firms. The authors conclude that with weak regulation, subsidized environmental management training may provide a useful complement to uncertain conventional enforcement. Ruiz-Arredondo, Rivera-Planter, and Muñoz-Piña (2006) analyze the incentives for manufacturing firms to adopt subsidized programs such as the Clean Industry Program, Mexico's flagship voluntary regulatory initiative. The authors conclude that regulatory enforcement, previous fines, or initiated legal processes result in the adoption of environmental management practices. Blackman, Lahiri, Pizer, Rivera-Planter, and

Muñoz-Piña (2007), using a sample of 60,000 Mexican firms, support these previous results and conclude that the main driver of participation is the threat of regulatory sanctions. Montiel and Husted (2009) find that the early adoption of voluntary programs in Mexico is explained by access to international markets and the ability to obtain relevant information from industry associations (Montiel & Husted, 2009). Perez-Batres, Miller, Pisani, Henriques, and Renau-Sepulveda (2011) also analyzed the Clean Industry Program and find that firms in "dirtier" industries and those located near the US border are more likely to participate in voluntary programs. The authors also find support for the idea that firms that have previously participated in a "supranational" program such as the UN Global Compact are very motivated to participate. Finally, Aigner and Lloret (2013) surveyed large Mexican firms and found that companies are active in the areas of business where environmental sustainability is relevant. According to the study results, Mexican companies are in the early stages of development along the sustainability "learning curve" (Aigner & Lloret, 2013).

Although Mexico is not known for being on the cutting edge of environmentalism or a leader in firm environmental practices, Mexico represents a rapidly developing country in both economic and social terms and is recognizing the parallel demand for environmental and economic development.

3.2. Results and discussion

The study conducted a survey of the adoption of environmental sustainability practices among firms including factors such as the motivation for adoption, future adoption plans, decision-making responsibility, and internal/external challenges. The survey also explored the adoption of environmental sustainability practices and the link with firm competitiveness. The sample consisted of 103 self-selected firms representing the six primary business sectors in the Mexican economy. The sample is highly skewed toward large firms. A total of 78.9% of the sample firms has over 500 employees although the size of Mexican firms is quite different, and approximately 90% of firms are small or medium-sized. However, the development of environmental orientation, or the implementation of environmental practices among Mexican firms, occurs among larger firms. Larger firms typically possess an awareness of environmental sustainability as a significant factor for competiveness and a desire to identify means to attain industry leadership. The study used the survey results originally reported in Aigner and Lloret (2013) to show the drivers of sustainability practices from the perspective of the corporate sustainability business model developed in this study.

3.3. Market-based view

The market-based view argues that sustainability is embedded in the firm through benefits and cost leadership. Firms seeking sustainability are typically also seeking new markets and perceive that consumers demand their goods and services hold sustainable attributes. This survey finds that opening new markets (34.6%) and cost savings (25.2%) are drivers of sustainable practice adoption. No support was found for branding or corporate image as drivers of sustainability as suggested by Blackburn (2012). In the manufacturing sector alone, cost savings are more significant (50%) than opening new markets (40%). Opening new markets implies that firms are seeking to enter markets that demand sustainability practices, such as international markets or as suppliers of a value chain. These results support the findings of Montiel and Husted (2009) and Perez-Batres et al. (2011). However, the results do not find support for the theory that firms expect branding benefits and image improvements from the adoption of sustainability practices, which suggests that Mexican firms remain in the early stage of the learning curve. The majority of firms (92.5%) state that the adoption of environmental sustainability practices improves the bottom line, which is supported by the market-based view of the firm and the

Table 1 ALSEA (2014) social responsibility.



Market-based view

*Provides accessibility to multiple restaurants in multiple regions. A total of 142 restaurants in Mexico, Argentina, Chile, and Colombia.
*Differentiating strategies of brands such as Starbucks, Domino's, Burger King, Chili's, California Pizza Kitchen, PF Changs, Pei Wei, Italiannis and The Cheesecake Factory. Many with sustainable strategies.

*Efficient distribution channel to reduce costs to achieve an operating margin of 12% on average.

*A total of 232 million customers across the region.

*The competitive strategy is based on a differentiation strategy by opening new markets. In most brands, sustainability has been an engine.

Resource-based view

*With nine distribution centers, centralized support areas ensure the success and efficiency of its operations.

*In 2012, the company invested more than 221,683 h in worker training with an average of eight hours per employee.

*The company saw a 17% increase in job creation in 2011.

*A total of 81% of their inputs is from local suppliers.

I*ncorporated change in 720 establishments such as lighting for high-efficiency equipment. *A 9.1% reduction in energy consumption seen within a year.

*All Alsea water consumption comes from public services. Waterless urinals installed in the facilities save 2800 m3 a year. Institutional-based view

*Social responsibility includes all aspects of business planning and operations.

*The company has a social responsibility committee, which is comprised of the top executives of the company.

*In 2012, the Mexican Center for Philanthropy named them a Socially Responsible Company. *The company contributes to the public policy issues that impact their operations. The company operates within the law and according to the highest ethical standards.

*The company participates in the National Chamber of Fast Food Restaurants.

*The company respects the norms regulating economic competition, monopolistic practices, and free market competition.

Table 2Compartamos Banco (2014) sustainability.



Market-based view

*A 79.8% customer retention rate in Mexico, 64.3% in Guatemala, and 74.6% in Peru.

*Aterna opened a new business; signature micro-insurance with 3.2 million policies in Mexico. *Product differentiation and access to financial instruments to the base of the pyramid.

*More than 2.5 million customers, many with no previous access to credit.

*Guatemala expansion with growth rates of 218% compared to 2011.

*Portfolio credits equivalent to 1.4 billion in 2014; an increase of 25.4% over 2011.

*Compartamos Banco is the industry leader in new market microfinance region wide and serves millions of people with no access to financial services. Particularly those belonging to the base of the pyramid. Resource-based view

*Construction of the SAP platform in Mexico to optimize, organize, and standardize all company operations.

*The average age of its employees is 31.1 years; a significant asset is the age of employees.

*The number of employees in 2012 was 14,780; an increase of 11.1% compared to 2011.

*Implemented the "Waste Separation for SEAS" a program gaining significant achievements in three months of operation in 2012 with more than 8382 kg of recycled material. *Trained 337 employees in financial education to impart this knowledge to clients and avoid problems such as indebtedness.

Institutional-based view

*The Great Place To Work Institute considers the group one of the best places to work in Mexico.

*They had weekly contact with 77.34% of customers in 2012.

*Developed an Index of Consumer Protection aligned to the parameters of the international initiative of the "SMART Campaign." An independent certification to publicly recognize financial institutions that meet adequate standards of care in the treatment of clients.

*The first and only Latin American company to support the Gender Equality Project of the World Economic Forum.

100% of its employees are certified annually in the Code of Ethics and Conduct, which renews a commitment to ethical behavior.

*Since 2009, 2% of annual net profits went to social responsibility and sustainability. For the second consecutive year, the company won the Socially Responsible Company award from the Mexican Center for Philanthropy

Table 3 CEMEX (2014) sustainable development.



Market-based view
*Operational efficiency and cost

leadership drives Cemex's competitive strategy.
*The company has increased

operations in the Asian market and the operating margin using a least-cost strategy.

*The company has developed innovative products with greater profit margins.

*Many of their products are tailored to meet consumer demands.

*Locations in more than 50 countries across five continents. I ntegrated products meet the specific needs of their customers rather than standardized goods. The products address several construction needs and are of high quality.

Resource-based view

*Established a 10-year strategic agreement with IBM under which the company provides best-in-class IT services and business processes.

*In 2012, the company consolidated its leadership in the use of alternative low-carbon fuels achieving a replacement rate of 27%.

*The company encourages employees to volunteer in their communities, supports community services infrastructure, promotes education, and provides training opportunities.

*By rotating its managers from one country to another and from one area of operations to another, the company has increased the experience and knowledge diversity of its employees.

*Mapping of over 2000 sites with CEMEX cement, concrete, and aggregates in infrastructure for comparison with areas identified as areas with water scarcity.

*Cemex has invested in R&D for profitable and alternative energy solutions.

Institutional-based view

*During 2012, the company concluded global integration of an advanced enterprise platform based on SAP.

*The company invested \$1.5 billion pesos in bonds, demonstrating the strong support that exists for CEMEX in global capital markets.

*The company reduced the amount of debt maturing in March 2015 to approximately \$750 million and paid all required repayments under the new financing agreement up to February 2017.
*In 2010, the company began a three-year partnership with the International Union for *Conservation of Nature (IUCN) to strengthen its approach to water issues.

Table 4 Industrias Peñoles (2014) sustainable development.



Market-based view

*Largest producer of silver, gold, zinc, lead, and sodium sulfate in Latin America.

*The company has entered the renewable energy industry for plants and subsidiaries. *Sustainable production has achieved efficiency and cost reductions.

*Investments in the construction of gold and silver were approved that will increase their market share of local production. Resource-based view

*Increased investment in fixed assets and exploration of 23.1% in 2012 compared to 2011.

*Water reuse systems that cater to loss by evaporation.

*Community investment in 2012 amounted to 12 million pesos to promote self-sufficiency in the regions of operation. *Started phase II Wind Power Project operations by adding 30 MW to the capacity of the wind farm La Ventosa (Oaxaca).

*Opened a new central laboratory after an investment of \$14.5 million.

*A total of 3.7% of energy consumed is from renewable energy.

Institutional-based view

*Since January 2011, IFRS adopted for all financial statements.

*Clean Industry certificate from PROFEPA.

*Fourteen of its operations certified according to ISO 14001.2004.

*Declared a socially responsible company by CEMEFI.

*Operated under the standards of FM Global.

*Operated under the principles of internal control based on criteria established by the Committee of Sponsoring Organizations of the Treadway Commission.

*Formalized sustainable development mission as part of the business model.

Table 5Grupo Pochteca (2014) sustainability.



Market-based view

*Vertically integrated into the raw materials and paper industry.

*Over 8000 monthly customers monthly in 500 cities in Mexico.

*The company has the largest product portfolio (4200 products through its subsidiaries).

*Operates in Guatemala, El Salvador, Costa

Rica, and Brazil. *In April 2009, the company announced the acquisition of the Shell lubricants plant in Mexico, located in Leon, Guanajuato to help their vertical integration.

*Have laboratories that allow applications according to customer needs.

*Consistent world-class suppliers that standardize the quality production processes.

Resource-based view

*Uses business intelligence to minimize risk and for the design of sourcing strategies. *Has 238,000 m² of warehouses nationwide with a capacity of 79,000 m² for storing dry goods and 15.2 million liters for liquids.

*The company has 1063 employees in Mexico. *During 2012, the company decreased water consumption by 14% and energy by 17% compared to 2011 and 2013. *Savings achieved in the liters/person rate.

Institutional-based view

*The first Mexican company to obtain the Certificate of Responsible Distributor by the NACD

*First Mexican company to receive FSC certification.

*Compliance with applicable quality standards worldwide in the protection and management of chemicals regulation. *Clean Industry certification from PROFEPA.

*From January 1, 2011, the company adopted the NIFS for all its financial results. *The group has "regulations," which enforce standards in all operations. Compliance with these standards increased by 7.3% compared to 2011.

*An audit confirmed ISO 9000 certification.

creation of competitive advantage supported by Andersen and Zaelke (2003), Holliday et al. (2002), and the seminal work of Porter (1985) and Porter and van der Linde (1995).

3.4. Resource-based view

The resource-based view proposes the use and exploitation of strategic assets or resources by the firm to remain competitive. The firm must assess the value, rarity, inimitability, and strategic alignment of resources (Barney, 1991). Additionally, the firm is subject to the biophysical limitations imposed by the environment (Hart, 1995). Resources are significant for all firms surveyed. For instance, at least 56.4% of firms are actively engaged in environmental sustainability, and the leading areas are energy resources conservation (78.6%) and waste reduction (75.1%) followed by environmental risk control (74.8%). For the manufacturing sector alone, environmental risk control, waste reduction, and product manufacturing are the main concerns of resource management. This finding is consistent with Perez-Batres et al. (2011) who state that strategic resources drive sustainability decisions when enforcement is considered. The results also found that firms rank conservation practices with cost savings as follows: energy resources conservation (57.3%) and waste reduction (56.8%) as areas most likely to deliver costs savings followed by natural resources conservation (83.0%) and water resources management (81.6%). For 70% of firms, resource conservation strategies are likely to increase profits. These results are consistent with the discussion and examples on the value of sustainability contained in Chapter 3 of Blackburn (2012). The

argument for the resource-based view in the corporate sustainability model is that resource limitations and restrictions, if embedded within the strategy, are likely to increase firm competitiveness. Such a firm has internalized the restrictions and will apply the value of sustainability to the decision-making process.

3.5. Institutional-based view

Institutional theory proposes that competitive advantages stem from the institutional limits established within, and external to, the company. Institutions create the incentive for corporate sustainability adoption because institutions cause firm behavior adaptations that comply with societal expectations. Institutions create internal norms of conduct that respond to sustainability demands. Firms use different institutional mechanisms at various levels depending on the required level of enforcement. The majority of firms in the survey use metrics or report environmental performance through the Global Reporting Initiative (31%), ISO 14001 or 14031 (24%), and Triple Bottom Line (21%). These reports are self-enforced informal institutions that shape strategic firm decisions. The leading reason for firm adoption of sustainable practices is compliance with environmental regulations (63.6%). These results are consistent with the findings of Ruiz-Arredondo et al. (2006) and Blackman et al. (2007). The results show that national and international regulations drive strategic decisions for sustainable practices. Institutional schemes are central to strategic decision making, are often overlooked, and could achieve a competitive edge if considered in a corporate sustainable model.

3.6. The stakeholder domain

This domain addresses the direct and indirect interests of various groups associated with the firm (Clarkson, 1995). Stakeholder management entails deliberate actions to manage stakeholder concerns while simultaneously pursuing strategic decisions (Hoffman & Georg, 2012). In the survey, 81.5% of firms indicated that collaborating with environmental organizations presents a business opportunity, but only 23% considered such collaboration a problem. The study investigated voluntary employee involvement in the development of environmental sustainable strategies, and most firms indicated that employees are involved at least to some extent on a voluntary basis, while fewer are involved when pushed by the company. Other stakeholders that influence firm business decisions are shareholders (40.2%) and the local community (31.4%), whereas socially responsible investment funds (56.7% stated "no affect" on firm decisions) and educational institutions (46.4% stated "no effect" on firm decisions) followed by competitors (40.3%), NGOs (39.6%), and environmental support groups (37.1%) were less influential. Mexican educational institutions have only recently become involved in sustainability studies, and no socially responsible investment funds existed in Mexico at the time of the survey.

3.7. The sustainable leadership domain

The sustainable approach to leadership involves building ties with communities, collaborating with stakeholders, and promoting longterm sustainable values (Avery & Bergsteiner, 2011). The three strategic-based views incorporate the sustainable leadership principles in different forms because they represent action to steer the organization toward corporate sustainability. In the survey, when firms were asked to describe their environmental sustainability practices five years from now, the majority of firms (92%) responded that environmental practices would be more important. This is consistent with the theory that Mexican firms are at an early stage of development along the environmental sustainability learning curve and are willing to consider the issue. However, business leaders have experienced challenges in their sustainability approach. For instance, respondents "do not know the most effective way to take action" (53.0%), or consider "outdated perspectives on issues of environmental sustainability" (51.7%), or have "too many business propositions that have not been prioritized" (29.8%). Leaders should find ways to manage external challenges such as a "lack of clear industry standards" (44.1%), a "lack of customer demand" (40.4%), and "insufficient economic incentives" (37.2%). Leaders that find ways to overcome these challenges will command a more competitive position in the future.

3.8. Corporate governance

While the survey did not assess corporate governance practices directly, the survey did examine the main incentives for board institutionalization of sustainability practices. Mexican firms place a high level of significance on "vision and commitment toward environmental sustainability" (64.2%), to "communicate between the interested parties" (52.9%), and "to understand and determine regulatory policies for environmental sustainability" (52.5%). These challenges must be considered by governance boards so that firms can adapt more rapidly to the changing business environment and create internal processes that institutionalize these practices. As firms face the challenges of sustainability, a model that improves sustainability will be a model that leads to greater competitiveness.

The next section illustrates the implementation of sustainable practices of five Mexican firms. The study organizes this information so that the business model for corporate sustainability illustrates the separate corporate sustainability practices of the firms (Tables 1, 2, 3, 4, and 5).

4. Conclusions

This study employs relevant business and sustainability literature to develop a business model for corporate sustainability. The study suggests an analytical scheme that allows the firm to generate and capture value subject to the restrictions and limitations imposed by economic, social, and environmental restrictions. A strategy that embeds three domains, a market-industry view, a resource-based view, and an institutional-based view, in conjunction with domains related to stakeholders, sustainable leadership, and corporate governance can address sustainability restrictions. The study discusses each view, applies empirical information to show the drivers that Mexican firms perceive to be significant for sustainability, and discusses these drivers within the context of the developed model.

The business model for corporate sustainability considers a long-term strategic view ensuring competitiveness. Companies can better address such sustainability restrictions with strategies that seek differentiation and costs' movements as the main drivers and by incorporating resource and capability strategies to address environmental and societal restrictions. Companies should comply with institutional schemes that shape firm behavior. The literature has extensive discussions on these strategic-based views; however, this study uses the different views as a frame to show how to achieve a corporate sustainability model by merging rather than separating each view.

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