



“The Role of the Board of Directors in Canadian Petroleum Companies  
during an Energy Transition into Sustainable Energy Sources”

by

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After the Paris Agreement (2015), most of developed countries have been evolving their energy mix into less carbon emitting sources. The challenge is to control global emissions by reversing the environmental effects of industrialization processes and pure economic growth. Actually, success of the Paris Agreement relies on reciprocity, transparency, subsidiarity and effectiveness of governments to move over time towards emissions reduction or limitation targets in the light of different national circumstances. In this context, Canada, as the fourth largest petroleum producer country and the third one in per capita energy consumption all over the world, has great responsibility to properly conceive and develop its own energy transition process from fossil fuels to renewable energy sources. Essentially, a long-term environmental perspective should have to prevail, and some provinces of Canada have been gradually changing into a cleaner energy mix. This specific scenario, composed of the adoption of sustainable public policies, redesign of regulatory frameworks, and necessity of environmental corporate strategies, generates and increases '*carbon risk*' and '*governance risk*' among Alberta's oil companies. Therefore, as Alberta's energy mix would be changing through the next decades, this research has three objectives: 1) investigate how '*carbon risk*' and '*governance risk*' have specifically been conceptualized by Alberta's top five oil companies related to the energy transition process; 2) determine the role of risk management and governance at the board of directors level among the companies to conduct an appropriate energy transition; and 3) identify which board of directors' characteristics are optimal to ensure governance structure and practices that mitigate carbon risks. Consequently, for the three main objectives it will be necessary to build a consistent theoretical framework using semi-structured interviews and structured surveys to configure and correlate the most significant variables and factors. This brief essay focus on illustrating how those second and third objectives are being studied and conceptualized before the appropriate analysis.

It is well-known that the oil industry has special operating conditions and systemic risk throughout the whole value chain and their multiple-diverse stakeholders. Thereby, optimal corporate governance is necessary to create adaptive strategic reactions towards internal and external pressures; in this specific mission, the role of the board of directors is crucial. Consequently, the petroleum industry requires permanent and optimal risk management which is also considered an integral part of internal control and corporate governance (Lajili & Zeghal, 2005). Moreover, proper management of '*carbon risk*' and '*governance risk*' is required and it would also be essential for high level of decision-making among oil companies. For instance, by 2019, a leading Canadian oil company, Suncor Energy Inc., considered '*carbon risk*' as principal risk, and not only integrated this risk into decision-making processes but also provided an approach into governance with required oversight of its Board of Directors (Suncor Energy, 2019a, p.16; Suncor Energy, 2019b, p.25).

Essentially, '*carbon risk*' is directly correlated with climate change and environmental responsibility, and it is significant for the general financial and reputational performance of petroleum companies and the whole world oil industry. Accordingly, management of '*governance risk*' constitutes one of the most appropriate tools to deal with carbon constraints. Indeed, a high level of adaptive decision-making by management and boards of directors with proper customization of recommendations considering the ever-changing conditions of the oil industry would also be

desirable. Additionally, developing '*carbon risk awareness*' as a capability of the firm to proactively identify the key risks it faces arising from carbon-related issues and seriously consider their potential consequences (Jung et al., 2018) is required. Therefore, the composition of board of directors as well as its characteristics, structure, and decisions regarding carbon and climate change become relevant to enrich risk management systems of oil companies.

During the last century, steady mass production of goods and services as well as the indiscriminate use of fossil fuels contributed to the degradation of environment. Naturally, environmentalist movements and initiatives emerged all over the world pressing governments and international organizations to act to strengthen environmental regulation and to control or reduce emissions levels. This particular scenario has significant effects for high-intensive fossil fuels activities as the world oil industry, and it is also generating social and governmental pressure to adopt environmental protection strategies.

In general, most of firm's strategic decisions are contingent on the context of an institutional structure which defines societal rules and imposes restrictions on, and expectations of, firm's behaviour (Zou et al., 2018). Accordingly, similar institutional organizations tend to adopt homogeneous behaviour, which is called isomorphism and consists of coercive, normative, and mimetic institutional pressures (Martínez-Ferrero & García-Sánchez, 2017). Moreover, companies gain institutional legitimacy in terms of these three aspects to enhance their stability and survival. Nevertheless, conforming to all strong institutional expectations is impractical for firms, since they are faced with multiple independent actors and demands (Zou et al., 2018). This reasoning is essentially true among the whole oil industry. In fact, oil companies are permanently facing multiple stakeholders' pressures sometimes with incompatible interests or institutional demands. Consequently, the boards of directors of oil companies require a special configuration and should have specific characteristics to better respond to unpredictable scenarios and institutional pressures for environmental management and proactive-sustainable strategies.

In this context, to understand why firms adopt different strategic reactions towards external institutional pressures, a set of studies explored the key role of the board of directors in corporate governance which links the organization to its institutional pressures. Board characteristics such as board independence and diversity are investigated, and it is suggested that independent directors monitor top management more effectively and are more likely to realize the potential of long-term investments in environmental sustainability (Zou et al., 2015).

Recent empirical research performed by Zou et al. (2018) suggest that board social ties which are linked to regulative forces (e.g., political organizations) and normative forces (e.g., universities) have a positive association with the firm's level of environmental responsibility; however, the ties which are linked to imitative forces (i.e., industrial peers) are in negative association with the firm's level of environmental responsibility. Consequently, as part of the answer for my third research question, this study will also be oriented to investigate how different Board of Directors' social ties of Alberta's oil companies are correlated with regulative, normative, and mimetic institutional forces and which is the resultant the level of environmental responsibility (with special consideration of management of carbon risk and governance risk).

Certainly, board social ties have influence on strategic decisions and environmental responsibility of oil companies and deserve an appropriate level of research; however, due to the extent of this essay and with the aim of defining specific board characteristics, it is accepted that regulative and normative institutional forces could have a positive relationship with environmental responsibility, and mimetic institutional forces could have a negative or positive relationship with environmental responsibility. In sum, boards of Alberta's oil companies need to consider board social ties of their directors giving special attention to regulative, normative and mimetic institutional influences and how those factors influence on their strategic environmental decisions.

One of the most important responsibilities of the board of directors is to monitor management on behalf of shareholders' interests which include: strategic decision-making, monitoring strategy implementation and controlling CEO performance (Zou et al., 2018). Moreover, the same authors stated that some of board of directors' characteristics which are related to a firm's environmental and social performance are: 1) board size, 2) independence, 3) diversity, and 4) ownership. This research attempts to investigate those four basic characteristics with the following six sets of proposed sub-categories which could also be control variables or factors during the next stage of the research:

- 1) **Board size and Firm size:** defined as the number of directors of the board and the size of firms respectively. Some researchers stated that board size relates directly to a firm's environmental performance (de Villiers, et al., 2011; Zou, et al., 2015) while other authors sustain that larger firms are burdened with more environmental pressures to maintain legitimacy, and they abound in resources to perform environmentally friendly activities (Meng, et al., 2016; Zou, et al., 2015). Regularly size is measured by assets, revenue, and market capitalization; however, because this research is focusing on large firms it could also be relevant considering geographic dispersion, as well as extent of areas of influence in their operations.
- 2) **Independence:** defined as board members capacity to take decisions without direct or indirect influence of any kind of personal or group interests related to the company or other correlated companies (Zhang, et al., 2013).
- 3) **Diversity:** defined as board members with representativeness of communities of interest and complementary skills, including technical or functional expertise, problem-solving and decision-making skills, and interpersonal skills (Hafsi & Turgut, 2013). (e.g. diversity is measured by gender, age, and tenure or length of time in the board).
- 4) **Ownership:** defined as the total amount of shares that directors hold and for most of oil companies constitute proof of alignment with their long-term objectives. Actually, this is probably the most controversial characteristic. Some authors sustained that board members ownership affects management and especially external and internal controls while others argued that ownership provides alignment of the board with managerial and shareholder's interests of the company (Zou, et al., 2015; de Villiers, et al., 2011).
- 5) **Board's Social Network Ties:** in addition to the four previous characteristics '*board's social network ties*' provide some new insights as complementary skills, access to new opportunities, and information about the company's peers and how a company is positioned in the industry.

All of them are coming from external institutional pressures (Zou, et al., 2015), as it will be explained in detail below.

- 6) **Board's Social Capital:** which is considered a strong influence on corporate governance and it relates to firms' outcomes such as compensation for top executives, research and development decisions, innovative performance, strategic change and financial performance. (Sauerwald, et al., 2016; Jhonson et al., 2013; Chen, et al., 2013; Hillman & Dalziel, 2013)

In fact, '*board's social network ties*' are highly relevant for governance because those broad connectors link the company with external information and knowledge, as well as external sources of pressure. In this sense, the neo-institutional theory suggests that corporate concerns about environmental issues and social investments are mainly driven by external institutional pressures (Berrone, et al., 2013). Indeed, oil companies all over the world are trying to ensure social legitimacy or social license and those are the main reasons to address environmental issues like carbon constraints or climate change concerns; moreover, in addition to carbon risk and environmental risks there are also reputational risk, and regulatory risk.

As I explained before, coercive, normative, and mimetic isomorphisms are the result of institutional external pressures. First of all, coercive isomorphism implies political influence and legal regulatory authorities and systems as effective mechanism acting on firm's environmental behaviour (Lin, et al., 2015). As a consequence, environmental regulation has been strengthened in developing countries; however, developed countries as Canada have demonstrated a different scenario: oil companies could gain first-mover advantages adopting proactive environmental strategies when regulation is being permanently strengthened. (e.g., Suncor Energy Inc., Cenovus Energy Inc., Imperial Oil Ltd., and Husky Energy Inc.) (Suncor Energy, 2019b, p.79; Cenovus Energy, 2018, p.32-33; Imperial Oil, 2019, p.39; Husky Energy Inc. 2019, p.45). Secondly, normative forces stem from professionalization. Indeed, social culture and norms are related to this force because practices promoted by professionals vary according to social culture, norms and values (Martínez-Ferrero & García-Sánchez, 2017). Thereby, normative institutional pressures on corporate social behaviour takes effect in several ways: media, newspapers, internet outlets which reflect social expectations about firms' activities. Moreover, education and training organizations (universities and other educational institutions) have the power to inject social norms into oil industry; additionally, first nations and communities exert social pressure over oil companies. In Alberta, most oil companies are well-prepared to deal with these kind of pressures and historically have been addressing programs to attend to the main social issues as well as integrative communication and proactive interaction with communities (Suncor Energy, 2019b; Cenovus Energy, 2018; Imperial Oil, 2019; Husky Energy Inc. 2019, Canadian Natural Resources, 2019). Thirdly, mimetic pressure drives firms to adopt similar activities of other organizations of its industry; indeed, it has been suggested that the social behaviour of both industry and community peers imposes mimetic pressure on a firm's relevant behaviour (Gao & Hafsi, 2015).

In Alberta, mimetic pressure among the whole oil industry is real; nevertheless, it does not have a negative relation with environmental responsibility. On the contrary, there is an illustrative example of a very positive and integrative relation: Canada's Oil Sands Innovation Alliance – COSIA

composed by 90% of oil producers who are funding research and innovation projects to control and reduce emissions, and sharing results and technology in benefit of the oil industry. Furthermore, COSIA considers as one of its main aspirations to produce oil with lower greenhouse gas emissions than other sources of oil (Canada's Oil Sands Innovation Alliance – COSIA, 2020).

In this order of ideas, *'board social network ties'* with its three main components constitute one essential board characteristic able to demonstrate how board members are correlated to their communities, government and other social institutions (e.g. media, universities, etc.); but also, *'board social capital'* has undeniable influence in corporate governance. Both characteristics have significant influence on boards of directors, and both are relevant for further analysis.

Furthermore, oil companies' boards are considering climate change, environmental risk management and sustainable initiatives as part of their annual reports, proxy circulars and recently as independent reports. This trend has been increasing during the last years and it also has the long-term view required by the oil industry. In fact, proactive environmental strategies are totally viable and some of the oil companies now say they will be zero emissions by 2050 (e.g. Suncor Energy Inc., Cenovus Energy Inc., Imperial Oil Ltd., and Husky Energy Inc.).

In conclusion, due to the current and future ever changing conditions (an imminent energy transition scenario, the pandemic and the post-pandemic scenarios as well as the world economy recovery plans) it is required to reconfigure board characteristics with special consideration of *'board's social network ties'* and an appropriate agile structure is highly relevant to ensure performance of board of directors. Additionally, implementation of risk management systems with proper detection and conceptualization of principal risks of the company will be essential to support decision making processes and to enhance optimal corporate governance.

## References:

- Berrone, P., Fosfuri, A., Gelabert, L., and Gómez-Mejía, L. (2013). Necessity as the mother of 'green' inventions: institutional pressures and environmental innovations. *Strategic Management Journal*, 34, 891-909.
- Canadian Natural Resources Ltd. (2019). 2019 Annual Report. Canadian Natural 30 years of Premium Value. Retrieved from [https://www.cnrl.com/upload/report/127/02/w\\_2019-annual-report.pdf](https://www.cnrl.com/upload/report/127/02/w_2019-annual-report.pdf)
- Cenovus Energy Inc. (2018). 2018 Environmental, Social and Governance Report. Retrieved from <https://www.cenovus.com/reports/2018/2018-esg-report.pdf>
- Canada's Oil Sands Innovation Alliance - COSIA. (2020, March 30). Retrieved from <https://cosia.ca/innovation-opportunities/greenhouse-gases>
- Chen, H., Ho, M., & Hsu W. (2013). Does board social capital influence chief executive officers' investment decisions in research and development? *Research and Development Management*, 43, 381-393.
- De Villiers, C., Naiker, V., & van Staden, C. (2011). The effect of board characteristics on firm environmental performance. *Journal of Management*, 37, 1636-1663.
- Gao, Y. & Hafsi, T. (2015). Government intervention, Peer's giving and Corporate Philanthropy: Evidence from Chinese Private SMEs. *Journal of Business Ethics*, 132, 433-447.
- Hafsi, T., & Turgut, G. (2013). Boardroom diversity and its effects on social performance: Conceptualization and empirical evidence. *Journal of Business Ethics*, 112, 463-479.
- Hillman, A., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28, 383-396.
- Husky Energy Inc. (2019). EGS Report 2019. Environmental Social and Governance Performance. Retrieved from <https://huskyenergy.com/downloads/aboutus/publications/sustainabledevelopment/ESG-Report-2019/Husky-ESG-Report-2019.pdf>
- Imperial Oil Ltd. (2019). 2019 Corporate Sustainability Report: Energy solutions for a better tomorrow. Retrieved from <https://www.imperialoil.ca/-/media/Imperial/Files/Publications-and-reports/Corporate-sustainability-report.pdf>
- Jhonson, S., Schnatterly, K., & Hill, A. (2013). Board composition beyond independence: Social capital, human capital and demographics. *Journal of Management*, 39, 232-262.
- Lajili K., & Zeghal D. (2005). A Content Analysis of Risk Management Disclosures in Canadian Annual Reports. *Canadian Journal of Administrative Sciences*, 2(2), 2005, 125-142.
- Lin, H., Zeng, S., Ma, H., & Chen, H (2015). How political connections affect corporate environmental performance: The mediating role of green subsidies. *Human and Ecological Risk Assessment: An International Journal*, 21, 2192-2212.

- Martínez-Ferrero, L. & García-Sánchez, I. (2017). Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review*, 26, 102-108.
- Sauerwald, S., Lin, Z., & Peng, M. (2016). Board social capital and excess CEO returns. *Strategic Management Journal*, 37, 498-520.
- Suncor Energy Inc. (2019a). 2019 Climate Risk and Resilience Report. Retrieved from <https://sustainability.suncor.com/en/climate-change/carbon-policy-and-regulation>
- Suncor Energy Inc. (2019b). 2019 Report on Sustainability. Retrieved from <https://sustainability.suncor.com/en>
- Suncor Energy Inc. (2020). 2020 Management Proxy Circular. Retrieved from <https://www.suncor.com/-/media/project/suncor/files/investor-centre/annual-report-2019/2020-management-proxy-circular-en.pdf>
- Zhang, J., Zhu, H., & Ding, H. (2013). Board composition and corporate social responsibility: An empirical investigation in the post Sarbanes-Oxley era. *Journal of Business Ethics*, 114, 381-392.
- Zou, H., Xie, X., Qi, G., & Yang, M. (2018). The heterogeneous relationship between board social ties and the corporate environmental responsibility in an emerging economy. *Business Strategy and the Environment*, 1, 2018, 1-13. doi:10.1002/bse2180
- Zou, H., Zeng, S., Xie, L., & Zeng, R. (2015). Are top executives rewarded for environmental performance? The role of the board of directors in the context of China. *Human and Ecological Risk Assessment: An International Journal*, 21, 1542-1565.