Macroenvironmental Factors Affecting Ethical Behavior

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The purpose of this study is to take a macroethical perspective and study the relationships between various structural factors and ethical behavior of firms. Using the data obtained from the Global Competitiveness Network of the World Economic Forum-WEF, and through the Bayesian Causal Map (BCM) methodology, we study how ethical behaviors of firms in a given country group are shaped by how managers perceive the political, legislative, and protective environment of business in these countries. The unique design of our study allows us to compare these relationships based on the development level of countries. Results suggest that regardless of the development stage of a country, managers’ perceptions about judicial independence are one of the key indicators of ethical behaviors of firms.

Introduction and Purpose of the Study

The general theory of marketing ethics (Hunt and Vitell 1983, 1993) posits that ethical behavior of managers is influenced by a host of environmental, situational, and contextual factors such as cultural environment (e.g. religion, legal system, and political system), general business environment (professional, industry, and organizational) as well as personal characteristics of the decision maker. The model also argues that how the decision makers perceive the ethical problem, the available alternatives, and the probability of resulting consequences shape their ethical behavior.

Various components of this theory have been tested since its introduction. Most of these empirical works have mainly focused on the personal characteristics of the decision maker, with relatively less attention being paid to the impact of “general business” and “cultural” environments. For example, Singhapakdi and Vitell (1990, 1991) studied the impact of personal (background) characteristics such as Machiavellianism and locus of control on ethical decision making. Hunt and Vasquez-Parrage (1993) study found gender as a personal characteristic that shapes the managers’ ethical decisions. Menguc (1998) and Burns and Kiecker (1995) studied the impact of deontological versus teleological orientations of the decision maker.

As classified by Nill and Schibrowsky (2007), most of these studies (and in fact more than two thirds of all ethics studies) deal with “microethical” issues. Microethical studies focus on ethical activities of “individual units, normally individual organizations (firms) and consumers or households” (Hunt 1976, 20), and deal with ethically challenging issues faced by individual firms and/or individuals within the firm. Macroethical approach, on the other hand,
involves a higher level of aggregation and deals with interactions between the firm and consumers, the society, and the business/marketing system in general (Shultz 2005). Macro level and more complex issues such the business’ role in helping to solve societal problems, private-(intellectual) property system, the relationship between law (political and legislative institutions) and ethics, can be considered under the macroethical category (Nill and Schibrowsky 2007).

At the macro level of analysis, even though the role of political and legal/judicial environment on the ethical practices of the firms intuitively valid, the extant marketing and business literature offers very limited theoretical discussions and/or empirical support for these relationships. As noted earlier, in the macromarketing literature, such environmental factors have been recognized to have potential impacts on ethical decisions of firms and individuals (e.g. Hunt and Vitell 1986, 1993). However, very little attention has been paid to the empirical illustrations of these relationships.

The purpose of this study is to take a macroethical perspective and study the relationships between various structural (called as “cultural” factors by Hunt and Vitell 1986, 1993) factors and ethical behavior of firms. More specifically, we study how ethical behavior of firms in a given country is shaped by how managers perceive the political, legislative, and protective environment in that country. The unique design of our study allows us to compare these relationships based on the development level of countries. The extant literature on business ethics offers empirical support for varying attitudes toward the business ethics across different nations (e.g. Sims and Gegez 2004; Batten, Hettihewa, and Mellor 2004; Robertson 2009). However, the data for these studies comes from only a few countries, and thus, limits their generalizibility.

Methodology and Data Analysis

The data for this study comes from a larger data-set of the Global Competitiveness Network of the World Economic Forum-WEF. The network, which has 150 partners around the world, collects the data from two main sources: 1-standard international indicators (such as GDP) and 2- Executive Opinion Survey-EOS. The data used in this study comes from the EOS conducted with 13,000 (thirteen thousand) executives in 139 countries (with an average of 95 respondents from each country) between January and May 2010.

WEF classifies countries into three distinct stages of development: factor-driven, efficiency-driven, and innovation-driven countries. Two criteria are used to allocate countries into the stages of development prosperity (Sala-i-Martin et al., 2010). The first is the level of GDP per capita at market exchange rates. This widely available measure is used as a proxy for wages, because internationally comparable data on wages are not available for all countries covered. The thresholds used are shown in Table 1. A second criterion measures the extent to which countries are factor driven. This is measured by the share of exports of mineral goods in total exports (goods and services), assuming that countries that export more than 70 percent of mineral products (measured using a five year average) are to a large extent factor driven. Besides, any countries falling in between two of the three stages are considered to be “in transition.”
Table 1. Income Thresholds for Establishing Stages of Development

<table>
<thead>
<tr>
<th>Stage of development</th>
<th>GDP per capita</th>
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<tr>
<td>Stage 1: Factor driven</td>
<td>&lt; 2,000</td>
</tr>
<tr>
<td>Transition from stage 1 to stage 2</td>
<td>2,000–3,000</td>
</tr>
<tr>
<td>Stage 2: Efficiency driven</td>
<td>3,000–9,000</td>
</tr>
<tr>
<td>Transition from stage 2 to stage 3</td>
<td>9,000–17,000</td>
</tr>
<tr>
<td>Stage 3: Innovation driven</td>
<td>&gt; 17,000</td>
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In this study we examine the relationships between “ethical behaviors of firms” and political, legislative, and protective environment for each of country-development group identified by the WEF classification. The analysis was performed using the Bayesian Causal Map (BCM) which is considered as an effective method in dealing with uncertainties.

BCM, as proposed by Nadkarni and Shenoy (2001), is a special type of cognitive (causal) map with an associated set of probability tables. In other words, BCM is a combination of cognitive maps used for deterministic modeling and bayesian belief networks used for uncertainty based modeling (Nadkarni and Shenoy, 2001; Nadkarni and Shenoy, 2004). The maps consist of the nodes, representing the concepts; and the arcs, representing relations between the concepts. The nodes of a BCM represent uncertain concepts and the arcs are the causal links between them (Fenton and Neil, 1995). BCM is a type of graphical model, which uses probability theory to manage uncertainty and complexity by explicitly representing the conditional dependencies between the nodes (concepts) (Jensen, 2002). The visual representation of BCM can be very useful in clarifying previously opaque assumptions or reasoning hidden in an expert’s mind. From a mathematical point of view, the basic property of BCM is the chain rule: a BCM is a compact representation of the joint probability table over its universe.

The chain rule for BCMs then yields

\[ P(A, B, C) = P(A) \cdot P(B \mid A) \cdot P(C \mid B) \]

In theory, the posterior marginal probability of a variable can be computed from the joint probability by summing all other variables one by one:

\[ P(A_j \mid B) = \frac{P(A_j)P(B \mid A_j)}{\sum_{i=1}^{n} P(A_i)P(B \mid A_i)} \]

In practice, such an approach is computationally intractable when there is an extensive number of variables since the joint distribution will have an exponential number of states and values. Although BCMs create an efficient language for building models of domains with inherent uncertainty, it may be time consuming to calculate conditional probabilities, even for a very simple BCM. Fortunately, there are several commercial software tools such as Hugin and Netica that can perform this operation. In the current research, Netica version 4.02 was used. It is a complete software package designed to work with BCMs, decision networks, and influence diagrams.
In BCM methodology, initially a causal map is structured. Then, the loops as well as redundant causal relations are eliminated from the map and the data for each of the concept is fed to the map in order to train the BCM.

For the first stage of the method, a survey was conducted to determine the variables to be used in the model which will serve as the basis for the analysis of “Ethical Behaviours of Firms (EBOF)” Five academicians that have expertise on business ethics were asked to choose the concepts that they thought had an influence on the EBOF among the 20 concepts of the first pillar of Global Competitiveness Index (GCI), namely “institutions”. The list of the resulting concepts that has been chosen by all of the experts is given in Table 2.

Table 2. List of the Variables Directly/Indirectly Effecting EBOF

<table>
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<tr>
<th>Concept</th>
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<tr>
<td>Intellectual property protection</td>
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<tr>
<td>Irregular payments and bribes</td>
</tr>
<tr>
<td>Judicial independence</td>
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<tr>
<td>Favoritism in decisions of government officials</td>
</tr>
<tr>
<td>Transparency of government policymaking</td>
</tr>
<tr>
<td>Strength of auditing and reporting standards</td>
</tr>
<tr>
<td>Efficacy of corporate boards</td>
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<tr>
<td>Strength of investor protection</td>
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After the determination of the concepts influencing EBOF, the experts compared those concepts in a pair-wise matrix where the rows represented causes and the columns effects. The experts were asked to specify whether the relation between each pair of concepts was ‘positive’, ‘negative’ or ‘zero (no relation)’. They were instructed to enter a ‘0’ for no relation, ‘+’ for a positive relation and ‘−’ for a negative relation in each cell to specify the relation between two concepts in the matrix. A total consensus was sought in order to gather the different points of view.

The relations were then analyzed in order to reveal reciprocal/circular causal relationships (i.e. loops). The existence of loops is an indicator of the dynamic structure of any map (Eden and Ackerman, 1998). However, the circular relationships or causal loops destroy the hierarchical form of the graph and violate the acyclic structure that is required by a BCM. For causal maps, no calculation has been developed that can cope with feedback cycles (Jensen, 2002). Therefore, the map should not contain cycles. As a result, in the third stage the identified loops were analyzed by a subset of our expert team.

More specifically, if two concepts had reciprocal influences, then the one with the more dominant causal influence was determined. For example, it was stated that there was a causal link from both “Irregular payments and bribes” to “Strength of auditing and reporting standards” and from “Strength of auditing and reporting standards” to “Irregular payments and bribes”. After analyzing the situation, it was decided that the more dominant causal influence was the one from
“Strength of auditing and reporting standards” to “Irregular payments and bribes” so the link from “Irregular payments and bribes” to “Strength of auditing and reporting standards” was eliminated. In addition, one factor (“Strength of Investor Protection) that had been indentified in the first stage as a potential cause of EBOF was eliminated from further consideration as this factor was not considered as a cause for any other factors by our experts in the second stage.

The resulting BCM is given in Figure 1. The figure depicts the direct and indirect relationships between EFOB and the remaining seven factors. The resulting BCM was then analyzed three times for each of the three different country (development) group.

Figure 1. The BCM for the Ethical Behaviors of Firms

Results and Discussion

Based on the BCM (Figure 1), the variables having the most important impact on EBOF can be specified using the “sensitivity to findings” option of Netica. The sensitivity analysis has shown that the most significant factor on the ethical behavior of firms operate in Stage 3 countries is “Irregular Payments and Bribes,” followed by “Favoritism in Decisions of Government Officials” and “Intellectual Property Protection.” This finding may be attributed to the perception of relatively fewer instances of bribing activity in the developed countries. In other words, managers' perceptions related to “bribing” activity may explain the high levels of ethical behavior we observe in these countries. Furthermore, a detailed sensitivity analysis indentifies “Judicial
Independence” as the most influential factor on “Irregular Payments and Bribes” in Stage 3 countries. These results, all together suggest that for other (Stage 2 and 1) countries, the route to improve ethical behavior of firms is to establish judicial independence in the first place. Higher judicial independence is likely to result in low levels of bribery, and low levels of bribery tends to result in improved ethical conduct by the firms operate in that particular country segment.

For stage 2 countries, the results of the sensitivity analysis is similar to that of Stage 3 countries in terms of the most influential factors affecting EBOF. The only difference we observe was the percentage probabilities of each factor.

For stage 1 countries, the order resulting from sensitivity analysis has changed, making “Intellectual Property Protection” as the most influential factor affecting ethical behavior. A further sensitivity analysis on “Intellectual Property Protection” variable reveals once again “Judicial Independence” as the key factor affecting perceptions of intellectual property protection in Stage 1 countries. This result, along with the results of Stage 3 and Stage 2 countries, may suggest that at the bottom line, regardless of the development stage, ethical behaviors of firms are closely related to the perceptions of judicial independence in that particular country.

References:


