Chapter 80

Game–Theoretic Insights Concerning Key Business Ethics Issues Occurring in Emerging Economies

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ABSTRACT

This chapter identifies some game-theoretic insights concerning several key issues of business ethics typically occurring in emerging economies. The chapter explicates four elements in this sequence: nature of game theory, characteristics of emerging economies, fundamentals of business ethics, and key business ethics issues. The chapter emphasizes useful insights of game theory rather than undertaking formal modeling (examples are noted in references). Game theory assists reasoning about strategic scenarios for businesses. A multinational entity operates within layers of institutions and norms from the international to the national and sub-national levels. Such institutions and norms help structure the complex environment within which a multinational entity operates. The approach in this chapter is to inquire into certain specific decision scenarios available in the extant literature as instances of important classes of decision problems and to suggest game-theoretic responses. These scenarios concern long-term sustainable business models, corporate values, and corporate reputation.

INTRODUCTION

The purpose of this chapter is to identify useful game-theoretic insights concerning key issues of business ethics in emerging economies. An insight should be of assistance to understanding and implementing business strategy and government policy. Better understanding and implementation should then help develop increased international consen-sus on ethical and legal standards. An example is the problems arising from efforts to reduce corruption (bribery, extortion, and facilitation) which is widespread in emerging and developing countries. It is important to understand the causes and effects of the various forms of corruption in order to design and implement effective anti-corruption measures by national governments, international institutions, and multinational entities. The study

draws on four elements which will be addressed in the following sequence: game theory, emerging economies, business ethics, and key issues.

The chapter is structured as follows. The following section explains in general terms game theory and criteria for defining emerging economies. The explanations are background for addressing key issues of business ethics. The next section reviews the business ethics literature concerning game theory. The subsequent section identifies game-theoretic insights for four key issues of business ethics in emerging economies. (Some illustrations are drawn from developing economies; the rationale is explained below in the sub-section on defining emerging economies, as the dividing line is evolving and gray.) The concluding section of the chapter emphasizes the findings and their implications for business ethics in emerging economies.

Game Theory

Game theory is a formal (or logical) analysis of conflict or cooperation (two conditions which may be mixed in specific instances), among interdependent actors, which is suitable for the study of strategic scenarios. A game-theoretic setting, or strategic scenario, concerns action and reaction for two or more interdependent actors (e.g., individuals or groups or organizational entities). Thus, the actors can be businesses, countries (i.e., national governments), and non-governmental organizations (NGOs) or other stakeholder groups. An actor has a desired payoff (i.e., reward or benefit) and decisions (i.e., choices or strategies). The actor's selected strategy affects the payoff of some other actor. A game has this set of characteristics.

While elements of what has come to be called game theory (such as the minimax theorem and the bargaining problem solution) were addressed earlier in relationship to games and market price equilibria, the primary work that established systematic inquiry was the 1944 book *Theory of Games and Economic Behavior* (Princeton University Press) by John von Neumann and Oskar Morgenstern. By 1950, the experimental game called the Prisoner's Dilemma had emerged; and game theory was being applied to problems of strategy in conditions as different as games, business, and war (McDonald, 1950). In 1950 and 1951 papers, John Nash demonstrated the existence of strategic equilibrium (the so-called Nash equilibrium) for non-cooperative games. Nobel Prizes in Economic Sciences were awarded for game theory work in 1994 (to John Nash, John C. Harsanyi, and Reinhard Selten) concerning non-cooperative games, 2005 (to Robert J. Aumann and Thomas C. Schelling) concerning conflict and cooperation analysis, and 2012 (to Alvin E. Roth and Lloyd S. Shapley) concerning market design. The approach of game theory is rational analysis (i.e., defined as each participant's benefits and costs) of decision problems involving interaction of two or more participants. Game theory is formally a branch of mathematics, with especially important applications in economic analysis of strategic choices and behaviors.

In a simple version of pure economic conflict (basically in the form of allocation games), perfect competition involves no such influences on other actors (ignoring negative externalities). Pure monopoly is the absence of any competitors. In between those two abstract polar-opposites, imperfect competition (such as duopoly and oligopoly) involves strategic interaction among economic actors. Cooperation is in practice arguably a more complex matter for study, for example in instances of common-pool resources and public goods (Ostrom, 2009). A body of literature supports the view that collective action can occur through institutional evolution among cooperating individuals acting outside of formal government (Ostrom, 1998; Ostrom & Gardner, 1993).

Formal modeling applies the mathematical theory of games to economic analysis. Formal modeling emphasizes identification of optimal (i.e., best available) strategies and the prediction of resulting outcomes (Cunningham, 1967).

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