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The nature of economic change and management in a new knowledge based information economy ☆

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Abstract

The development of management theory and practice and their informational assumptions are followed over three phases of economic development; (1) the pre-oil crisis experience 1969–1975, (2) the post oil crisis sobering up through most of the 1990s and (3) the emergence of globally distributed production organizations, blurring the notion of the firm to be managed. The change from a belief in a predictable environment and only marginally uninformed actors to an increasing recognition of the fundamental ignorance that enters all business decisions, the consequent business mistakes and that learning between the periods has been of limited value and often misleading is found to be reflected in business information systems.

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The increased rate of failure among large firms in recent decades appears to be related to the increasing complexity of business decisions, the decreased reliability of learning and the difficulties of controlling the value chain in globally distributed production.

JEL classification: A11; C44; C61; D21; D59; D83; G34; L23; M19

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1. Background

Management theory and thinking has to be based on some "theory" of the firm and the economy at large. A standard argument of economic thinkers of the not too distant past was that the internal economy of the firm was fully known and controllable and that new information technology would soon make the real economy around us transparent and accessible for analytical understanding, optimization of individual and aggregate behavior, and the circumstances perfectly arranged for informed central planning. Such were the predictions of neo-walrasian analysts and their derived believers in management science and the business world (Eliasson, 1976). "Planning has become a fashionable subject in American management literature" writes Loasby (1967). Strategic models of management developed during the 1960s saw steady growth as the central objective to be achieved through market expansion and/or product differentiation, but mainly through organic growth (Ansoff, 1965). These models were based intellectually on the Walras–Arrow–Debreu (WAD) static equilibrium model, the assumption that knowledge was identical to information, that information was an almost free resource and that the use of information required neither any particular competence nor any resource input.

The parallel development of management theory and practice over three phases of economic development has been followed through interviews; (1) the pre-oil crisis experience 1969–1975, (2) the post oil crisis sobering up period that lasted well into the 1990s and (3) the emergence of new forms of globally distributed production towards the end of the 1990s, blurring the notion of the firm to be managed. During the first period management theory inspired by the static WAD model of economics recommended central business economic planning based on analysis and forecasts (Eliasson, 1976).

Each period has been characterized by a different structure of business operations determined by external market circumstances and emerging technology; (a) a steady state predictable environment, (b) crisis, inflation and disorderly markets and (c) new technology supporting a globally distributed production organization, each requiring a different mode of management and, as we will see, significantly reduced possibilities of learning between the periods.

Post oil crisis economic development in the 1970s was a brutal experience for the central planners of firms. By the mid 1980s central planning practice was mostly