Chapter 23
Economic Incentives and the Knowledge Economy

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"The knowledge economy is what you get when firms bring together powerful computers and well-educated minds to create wealth." (Brinkley, 2006)

INTRODUCTION

It is not a new idea that knowledge plays an important role in the economy, nor is it a new fact. However, the degree to which knowledge is now generated and exploited, as a means of generating wealth, is immense (United Kingdom Department of Trade and Industry, 1998). Lank (1997) argues that human expertise and knowledge are the source of value creation in today's knowledge intense world economy. Our ability to acquire and distribute information has increased its value to all participants in the economic system (Houghton and Sheehan, 2000). Knowledge is a unique asset to a firm; in the right hands, it can create immense value, however, people can leave the business at any moment in time, taking all their knowledge with them. While many firms now use information technology systems to collect and store knowledge, these systems are worthless unless firms encourage and incentivise knowledge sharing.

Information and communication technologies are the enablers of change in our firms and markets. They facilitate knowledge creation in innovative societies (OECD, 1996). While they do no create change, they act as the tools which can

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release people's creative potential and knowledge. Knowledge management is about best practices and procedures rather than pure technology. For example, in companies where development teams are spread across the world, knowledge management allows employees to develop upon existing ideas rather than reinvent the wheel. Knowledge management is only effective if it is used; it is pointless introducing a new information-sharing technology (e.g. video conferencing) unless you correctly incentivise its use.

How can we incentivise the sharing of knowledge? Today there are four factors of production, the three traditional factors (i.e. land, labour, and capital) and knowledge. Unlike the traditional factors, it is not easy to create or share knowledge (Kim and Mauborgne, 1997). While knowledge is the ultimate economic renewable (i.e. the stock of knowledge is not depleted by use), and its value comes from sharing it with others, it is very difficult to encourage and facilitate this sharing. Ghosh (2004) argues that knowledge sharing is prohibited by a number of human factors, these include: knowledge sharing is time consuming; knowledge is power which employees do not want to share, and knowledge sharing involves trust. In a world where an employee's salary, bonuses, and promotion are linked to performance, it is difficult to encourage and promote knowledge sharing. As a result, there is a need to examine other ways of incentivising knowledge sharing.

The aim of this paper is to examine how incentives assist in the knowledge management process at individual, group, and firm level. We argue that incentives are an integral component of a successful business. Suitably designed incentives provide a tool to elicit correct and timely information, to encourage and reward performance and to promote knowledge sharing among firm owners, managers, and employees. We begin by examining what incentives are and how they help to mitigate information problems in the market. Next, we examine the incentives in the knowledge economy by examining the principal-agent problem and the knowledge sharing dilemma. We conclude by outlining some avenues for future research.

BACKGROUND

What are incentives? Incentives are mechanisms offered to individuals to help in their decision making process. For example, large supermarkets use loyalty cards to encourage customers to return to their store, teachers use exams to encourage students to study, parents often use treats to persuade their children to behave. In the workplace, incentives are used to align the objectives of the owner-manager with those of the employees. Many privately owned firms use incentives to motivate employees to strive for profit maximisation, while publicly owned companies use them to motivate employees to maximise shareholder wealth.

Incentives can be classified broadly into two types – carrot incentives and stick incentives (see McMillan, 1992). Carrot incentives reward employees for reaching targets; examples include bonuses and promotion. Stick incentives, on the other hand, punish employees for failing to reach their targets, e.g. non-renewal of contract. The purpose of an incentive is to provide decision makers with a reason to follow a particular course of action. Incentives and information are intrinsically linked. With full information, there is no need for incentives. If an owner-manager can observe everything an employee is doing then he can correctly compensate him for the quality and effort he has exerted. If, on the other hand, the owner-manager cannot easily observe the employee at work then it is impossible for him to correctly compensate for the employee. Without incentive mechanisms, delegation becomes problematic within firms (see Eisenhardt, 1989; Holmstrom, 1979; Gibbons, 1998; Milgrom and Roberts, 1992; Mirrlees, 1997; Vickrey, 1961[1]).

The problems caused by information asymmetries have attracted a lot of attention in the economics literature[2] (see for example Akerlof,