Chapter 15

Knowledge Governance and Economic Growth in Arab Countries

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ABSTRACT

The present chapter deals with three interdependent components related to knowledge governance. The first one examines the effect of knowledge governance on medium term growth. Using the software industry as benchmark, the authors’ findings suggest that poor knowledge governance reduces economic growth over the medium term, but the relationship is non-linear. The second one analyzes the impact of formal institutions on economic knowledge and its related variables. In particular, the role of various governance indicators is examined. The results show that institutional quality plays an important role in the relative performance of MENA and African countries in building up the knowledge economy. The last aspect analyzed in this chapter is to establish the status of Arab economies in terms of their transformation to knowledge economies and empirically examine the impact of knowledge and its related variables on economic performance. Policy implications are also discussed.

1. KNOWLEDGE GOVERNANCE

We examine the effect of knowledge governance on medium term growth using cross-country data over 2000-2010 for a sample of 22 Arab and African countries. From an analytical point of view, knowledge governance encompasses intellectual property rights system. Using as benchmark, the software industry, our findings suggest that poor knowledge governance reduces economic growth over the medium term but the relationship is non-linear – the rate of decrease in economic growth diminishes with poor knowledge governance. Policy implications are discussed.

The World Development Report 1998/1999 (World Bank, 1998, pp. 6-8) argues that knowledge has become the crucial factor for development, as it has become for the global economy with its...
implications for R&D expenditure. The creation of knowledge is expanding rapidly. Three categories of knowledge have been defined: scientific knowledge; technological knowledge and entrepreneurial knowledge. Technological knowledge includes implicit and explicit blueprints in the form of inventions. This type of knowledge is more associated with firms, and universities.

This relates to the characteristics of knowledge described as the degree to which it is rivalrous and excludable (Arrow, 1962). A purely rivalrous good has the property that its use by one economic agent precludes its use by another. Excludability relates to both technology and legal systems and thus to the possibilities of inventors to appropriate the returns of their inventions. That is the economic rationale for policy makers to provide a legal system to avoid an underinvestment in the production of knowledge (Arrow, 1962).

A good is excludable if the owner can prevent others from using it. Technological knowledge may be perceived as a non-rivalrous, but partially excludable good due to legislation on intellectual property rights (IPRs), i.e. patenting and copyrights. Its non-rivalrous character stems from that technological knowledge is inherently different from other economic goods. Once the costs of creating it have been incurred, it may be used repeatedly at no additional cost. The marginal cost of reproducing it is zero. The IPR system is designated to increase the incentives of firms or individuals to generate new technological knowledge. That is to guarantee the access to knowledge. Notice that this knowledge governance is also one of the components in the KEI developed by the World Bank: the economic incentive regime. This component includes as an important aspect the IPRs protection regime.

Without an adequate IPRs protection, creators will have little confidence in appropriating their returns. Poor knowledge governance might also influence the incentives to innovate. Further, weak IPRs systems might also signal weaker formal institutions, and thus affecting economic growth. Thus, the link between knowledge governance and economic growth is a key question that deserves further consideration.

1.1. Knowledge Governance in Arab Countries

In general, little attention has been paid to Intellectual Property Rights (IPRs) regulation in the Arab region (see, El-Said, 2005). Property rights protection and institutions are highly underdeveloped within the Arab Region. As one would expect, the experience of Arab countries with IPRs protection is not homogenous and it differs a lot across countries. We can distinguish two main groups: a small group of countries with active involvement in IP issues at international level, and another one with a more limited participation in the IPRs protection at international level. It is important to note that some of the Arab countries are not...