

Post-Materialist Values and Innovation

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Abstract

Cultural differences influence the relative performance of companies in different countries. This statement has been supported by academic research. However, one aspect of cross-cultural research which has received less academic attention is the relationship between cultural values and the innovativeness and inventiveness of a society. The purpose of this research is to examine the effect of the post-materialism cultural values on the national rates of innovation in 52 countries. The measure for post-materialism is based upon Inglehart's four-item, post-materialism index. A set of economic, demographic and social factors is included to investigate the independent role post-materialism plays in predicting the national rates of innovation. The results could have important implications for managers and policy-makers. Nations could differ in their rates of innovation because of the cultural values of their citizens. Countries may not be able to increase their rates of innovation simply by increasing the amount of money spent on research and development. They may also need to change their citizens' values. The values associated with high national rates of innovation are those which many scholars have long argued are important at the firm level. Some societies might have a cultural advantage comparative in inventiveness. If this is true, these countries are the best locations for research and development in multinational corporations. The same cultural values that operate on the national level operate on the firm level, leading companies and countries with innovative cultures to invent more than others.

Introduction

Nobody doubts the importance of innovation in the development and competitiveness of countries and regions. Thus raising innovation levels is clearly an important economic objective, and trying to understand the factors associated with the innovation rate an important topic of research. Researchers have found that innovation is associated with macro-economic characteristics such as the type of industry (textile, paper, agricultural machinery, chemicals, biotechnology, etc.) (Nelson and Winter, 1977; Patel and Pavitt, 1989) and per-capita income (Shane, 1992, 1993; Vernon, 1966; 1970), as well as with other factors such as government support (subsidies, soft loans, etc.), or the knowledge accumulated (Furman et al., 2002). Moreover, empirical evidence supports the idea that cultural values are determinants of the innovation levels of both firms and society in general (Moulin, 1961; Wallace, 1970; Shapero and Sokol, 1982; Shane, 1992, 1993; Morris et al., 1994).

In this paper we will test the hypothesis that differences in cultural values among countries help explain their different innovation levels. For this purpose, we will examine the effect of the post-materialist orientation on the innovation rate using a sample of 52 countries. We will use the following indicators to measure innovation: high-technology exports

(percentage of manufactured exports), patent applications, technical journal articles, and trademarks.

Governments have come to realise the importance of innovation for improving national productivity and competitiveness, so they are increasingly promoting these activities, using various industrial policy measures. It is important to understand the relation between cultural values and innovation because innovation levels will depend on the cultural values of the country. Hence these values must be taken into account when predicting the efficacy of policies aimed at boosting innovation. It is well known that institutions play a fundamental role, and they can use their policies to boost the development of either productive or unproductive activities (Baumol, 1990). But in any case to increase innovation it is important to know what factors are related to it, how strong the relations are, and which of the factors are susceptible to political measures.

The term “post-materialism” was coined by Inglehart (1977), and describes the degree to which a society places goals such as personal development and self-esteem before material security and economic objectives.

The post-materialism hypothesis describes the transformation of societies from a culture dominated by materialistic-oriented individuals to one in which a growing proportion of the population pursues non-materialistic life-goals.

The economic security that some (post-industrial and post-materialist) societies have achieved leads to a situation in which greater priority is given to non-material objectives such as esteem, self-realisation and quality of life – post-materialist values that the psychology literature often calls “Maslow’s higher-order needs”. The hierarchy of needs (Maslow, 1954) establishes a basic distinction between the “material” needs of sustenance and physiological security and non-physiological needs, such as esteem, self-realisation, and aesthetic satisfaction. In societies in which a post-materialist climate prevails, there is less emphasis on economic performance than in materialist societies.

In fact, researchers have found empirical evidence linking innovation with certain attributes typical of post-materialist cultures, such as a climate of freedom (Kanter, 1982; Shane, 1992), an open mentality, adaptation to change, trust in others, and the participation of all the members of the organisation (Wallace, 1970; Morcillo, 2007).

On the other hand, producing innovations clearly requires time, effort and money. Equally clearly, time, effort and money cannot guarantee the success of innovations, but the lack of these factors can be an obstacle to innovations (Pohlmann, 2005). This may explain why materialist societies have very little incentive to innovate unless for immediate economic results.

In short, the literature suggests that certain psychological characteristics are associated with innovative people. Thus firms will innovate more when their environment has a higher proportion of people with values such as freedom of speech and participation in the decision-making. In other words, in order to innovate firms need their employees to participate fully and a climate of freedom, which are post-materialist values. Post-materialist societies have more people with these values, and so will be more innovative than materialist ones.

Structure

This work will be structured as follows. After reviewing the literature on the question, we formulate the following hypothesis: “A positive relation exists between post-materialism and the innovation level”.

We will analyse this relation differentiating between various indicators of innovation based on World Bank data for each country in the study.

We will subsequently present the methodology and discuss the results of the work and its implications.

Methodology

To test the hypothesis that post-materialism predicts the innovation level, we will use 2005 data from the World Values Survey (WVS) and the World Bank. The WVS analyses 57 countries, and the World Bank provides data for 52 of these.

We will carry out a linear regression in which the independent variable is level of post-materialism, the control variables are per-capita income, educational level, and R&D spending, and the dependent variable is innovation level as measured by the above-mentioned indicators.

Results

We expect to find that post-materialism, which is a cultural manifestation, is positively related to the innovation rate. This would imply that the effectiveness of R&D spending would depend on the culture of the country concerned. Innovation rates are affected not only by economic factors but also by cultural factors. We expect, therefore, that post-materialist countries will have a comparative advantage in innovation. And if this turns out to be true, then these countries will be the best places to invest in R&D.

The conclusion would therefore be that the effectiveness of political measures aimed at boosting innovative activity will be conditioned by cultural factors, and that these measures should be designed with the cultural attributes of the country in mind.

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