Chapter 1

IT Industry Success in Small Countries: The Cases of Finland and New Zealand

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Given the importance of the information technology industry in today’s global economy, much recent research has focused on the relative success of small countries in fostering IT industries. This article examines the factors of IT industry success in small developed countries, and compares two such countries, Finland and New Zealand. Finland and New Zealand are alike in many respects, yet Finland’s IT industry is more successful than New Zealand’s. Three major factors that impact on the development of a successful IT industry are identified: the extent of government IT promotion, the level of research and development, and the existence of an education system that produces IT literate graduates.

INTRODUCTION

At the beginning of the twenty-first century, information and communication technologies are creating global markets for goods and services. These technologies are impacting on every aspect of our lives, including how people work, communicate, and entertain themselves. Many economists have started to suggest that we may be entering a new era of greater productivity (without inflation) in the “knowledge economy” of the future.

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What is not clear, however, is how many countries will be able to adapt and develop new information based industries of their own. In this new global, knowledge-based economy of the future, it is likely that some countries will thrive and become significant players, while others will not. Those countries that cannot adapt will suffer and may find themselves as producers of low value products for wealthier nations.

Given the importance of the IT industry in today’s global economy, much recent research has focused on the relative success of small countries in fostering IT industries. This article builds on this earlier work and examines the factors of IT industry success in small developed countries, focusing on two such countries, Finland and New Zealand. We chose Finland and New Zealand for this study because they share many common characteristics, yet Finland’s IT industry is more successful than New Zealand’s (as will be shown below). Using a modified version of the theoretical model suggested by Ein-Dor et al. (1997), this paper suggests factors that may contribute to the differing levels of IT industry success. For the purposes of this study we define IT as computer hardware and software but exclude embedded hardware and software in other products (e.g. washing machines).

With respect to the static or snapshot nature of the data presented here, Kraemer, Gurbaxani and King (1992) argue that the relationship between interventions and their consequences is best revealed by careful, longitudinal study that links together specific policies and actions with particular results. Such study is badly needed and in some limited instances has begun, but to date the best assessments are limited to cross-sectional evaluations of correspondences between policies and economic measures of computer-related activities in given countries (1992, p. 149).

We agree with them that, in the long run, a longitudinal analysis is undoubtedly better for many of the things we are trying to find out. However, the objective of this first study is an exploratory review benchmarking the state of the IT industries in the two countries. We believe that a cross-sectional evaluation is sufficient for this purpose.

The paper proceeds as follows. In the following section the theoretical framework is presented. The research methodology is then described. This is then followed by an analysis of the data relating to the two countries. In this particular section, each country is briefly described and the controlled variables are presented. Then the dependent variables relating to IT industry success are evaluated. The main part of the analysis describes the exogenous and endogenous factors for each country and, wherever possible, an attempt is made to relate these variables to the differing degrees of IT industry success. The final section is the conclusion.
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