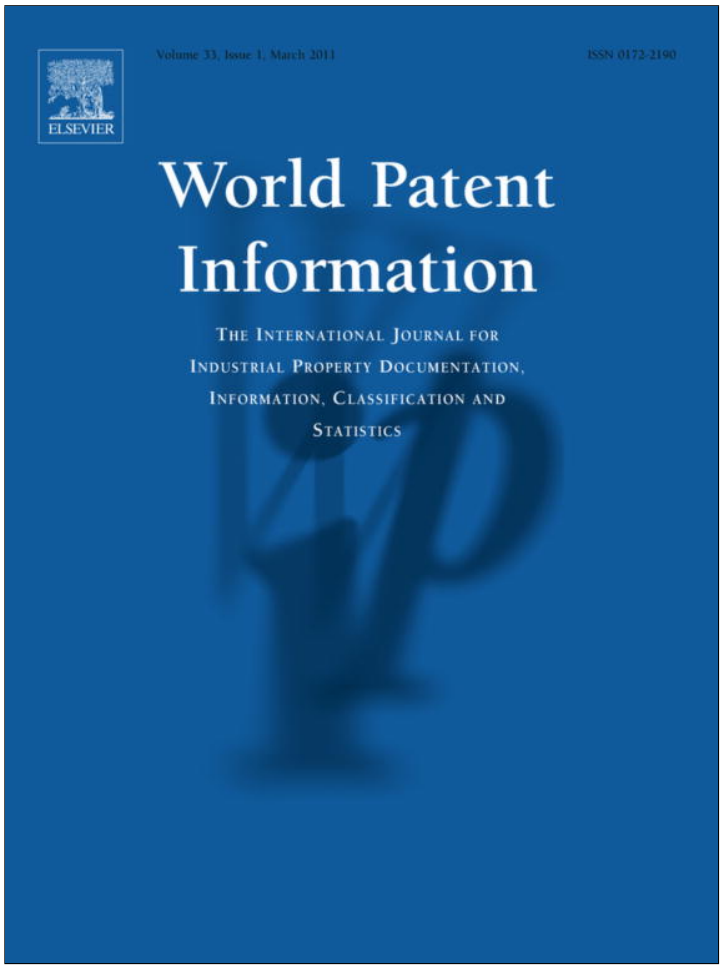

World Patent Information 33 (2011) 51–57

Contents lists available at ScienceDirect

World Patent Information

journal homepage: www.elsevier.com/locate/worpatin

Patenting activities by developing countries: The case of Malaysia

V.G.R. Chandran Govindaraju [a,b,*], Chan-Yuan Wong [c,1]

[a] Department of Economics, University Technology MARA, KM 12 Jalan Muar, 85009 Segamat, Johor, Malaysia
[b] Department of Economics, Faculty of Economics and Administration, University of Malaya, 50610 Kuala Lumpur, Malaysia
[c] Department of Science and Technology Studies, Faculty of Sciences, University of Malaya, 50610 Kuala Lumpur, Malaysia

ARTICLE INFO

Keywords:
Patent trends
Foreign direct investments
Innovative capability
Technology distribution
Developing countries
Malaysia
US patents

ABSTRACT

This study examines the patenting activities in Malaysia with regards to applied for and granted patents in the Malaysian and US patent systems. The evidence shows that the patenting trend is increasing, particularly due to foreign firms' participation in the Malaysian economy. As such, any shock to the economic activities of foreign firms will deter patenting trends. This also indicates that the current local indigenous innovative capabilities are still weak and require better policy intervention to accelerate the inventive capabilities of Malaysia.

1. Introduction

The study of innovation has evolved impressively over the years. Contribution to innovation literature gained further momentum with the development of other frameworks e.g. national innovation system [1,2] evolutionary models [3] taxonomy and trajectories [4]. These, largely, growing number of literature on innovation indicate the paramount importance of innovative activities for firms as well as for the nation. However, while there is abundant evidence on innovation activities in western economies, on the contrary, despite the continuous efforts by developing economies in protecting their inventions and improving patenting activities, literature on patenting activities of the developing economies is still lacking. Moreover, scholars' analysis and responses on the debate of "Asian Miracles", only considered the total factor productivity growth, which is primarily based on aggregated production function and econometrics analysis but lacks the detailed analysis of the inventive activities of an individual economy.

Due to the fact that very little is known about the innovation activities in the developing countries, in this study, we try to examine the inventive activities of a developing economy – Malaysia. Owing to Malaysia's impressive economic progress in the 1980s and 1990s, via liberalization policies, therefore examining innovation activities is very timely. Despite the fact that innovation studies go beyond the analysis of patenting activities and patent count analysis has its own limitations, however, it is believed that possible insights can be gained by examining the patent data, especially in advancing knowledge for those who want to inquire about who actually innovates and which field is more productive. Although imperfect, patents still remain a valuable and unique source of data that is informative to show technological efforts. Many studies mainly measure innovation as input and output regardless of the usefulness of the applied patents. These studies also consider patenting rate to be a well-grounded proxy for innovation level [5]. Yet, owing to the limitation of using patent data, thus, the evidence in this study need to be interpreted with extra caution for a meaningful explanation. Specifically, in this study, we seek to analyze the patenting trend by local and foreign firms/organization in Malaysia and the US patent systems. Analyzing the patenting trend provides insights in predicting a country's future development in research and development (R&D) activities. This in turn will provide valuable insights on the current trend in innovation, who actually innovates, and the link between foreign participation and patent activities that is specifically valuable for policy makers in framing future Science and Technology Policies.

This study is further organized as follows. Section 2 provides a brief discussion on the national science and technology (S&T) policy in Malaysia while Section 3 examines the patenting trend in Malaysia. Section 4 discusses the patenting trend of Malaysian applicants in the US patent system. Section 5 presents the discussion and concluding remarks.

2. Science and Technology Policies and intellectual property management in Malaysia

The Malaysian government formulated the first National Science and Technology Policy (STP1) in 1986 with the purpose

* Corresponding author. Address: Department of Economics, University Technology MARA, KM 12 Jalan Muar, 85009 Segamat, Johor, Malaysia. Tel.: +60 17 6843705.
E-mail addresses: vgrchan@gmail.com (V.G.R. Chandran Govindaraju), wongcy@gmail.com (C.-Y. Wong).
[1] Tel.: +60 12 5408537.

0172-2190/$ - see front matter © 2010 Elsevier Ltd. All rights reserved.
doi:10.1016/j.wpi.2010.01.001