

An ARDL Analysis on the Internet Usage Rate and the Wealth of Malaysians

Fennee Chong & Venus Khim-Sen Liew

Abstract: - The objective of this study is to examine the relationship between gross national income per capita and the internet usage rate per 100 people of an emerging economy – Malaysia both in the short and long-run. Autoregressive Distributed Lag Modeling Approach (ARDL) was used to analyze the thirteen-year time series collected for these two variables. Empirical findings from the econometrics analysis reported a significant long-run and short-run relationship between these two variables. Hence, this study concludes that, enhancing internet usage among the public and private sectors is a pertinent strategy for Malaysia towards achieving a higher wealth status for its people.

Key-Words: - Gross national income per capita, internet usage rate.

I. INTRODUCTION

The internet is an interconnected computer system that allows global communication. It has emerged to become one of the most important ways to support networking of millions of users since its introduction in the 1960s. Nowadays, it has become the fastest and most economical method to facilitate government, private and business activities around the globe. Economic transactions can be executed at the fingertips regardless of business hours and geographical boundary. Consequently, internet usage has become a crucial tool for a country to improve its competitive edge and subsequently, achieving a higher standard of living for its population.

Malaysia is one of the emerging economies striving hard to do well on the world economy platform. Among others, the government has introduced the New Economy Transformation Policy in 2011 aiming to transform the nation into a high income, inclusive and sustainable economy by 2020. As mentioned earlier, to have a higher internet usage rate is one of the main ingredients in this quest. This is because it is important to recognize that future prosperity cannot be achieved without linkages to the world economy. Hence, the government has identified R&D and ICT enhancement as one of the key enablers for the country to move up the global value chain. Internet usage was recognised as a viable ICT infrastructure which allows Malaysia's transition into a

high income nation. According to the World Bank, the gross nation income for Malaysia stands at USD 7760 as at 2010. Comparing to the envisaged target of USD 15,000 per capita by 2020, the nation needs to work at least two times harder to accelerate its economic growth.

Economic theory suggested that higher income can only be achieved via greater productivity which in turn required higher level of innovations, technologies and highly skilled workforce (Aghion and Howitt, 1992) [1]. Therefore, Malaysia needs to adopt and transform into the knowledge economy model. Since ICT is the major technology that brings innovations to greater heights especially in a globalized economy, hence, the advancement into "information economy" is inevitable within the knowledge economy context.

II. PROBLEM FORMULATION

Economic literature contended that microeconomic factors such as oil price, interest rates, foreign exchange rates and money supply are endogenous factors affecting a nation's wealth (Flannery and Protopapadakis, 2002 and Liow et. al., 2005) [2],[3]. In the European Union setting, Kovarnik (2012) [4] posited that European Union Budget has an enormous impact on the creation of knowledge and innovation based economy of its member countries.

On the other hand, the impact of information economy components such as internet usage on the gross national income is rarely examined for developing country such as Malaysia. Furthermore, assessing how internet usage rate influences a nation's wealth is relatively new. Moreover, most of the studies on internet usage are focused on the industry or firm level rather than on the macro level. With the emergence of the information economy, the input or impact of information related technology on the economic well-being of a country should also be evaluated.

A. Internet Usage Background in Malaysia

Intensifying technology usage such as internet usage is crucial as it lowers the barriers in doing business and allowing more innovations involving cutting edge processes and products at the same time. In addition, diffusion of the internet is an ICT innovation that can promote cheaper communication and allows more efficient and faster dissemination of information worldwide.

F. Chong is with the Faculty of Business Management, Universiti Teknologi MARA, Jalan Meranek, 94300 Kota Samarahan, Sarawak, Malaysia. (phone: +6 082-677695; fax: +6 082-677350; e-mail: fenneechong@sarawak.uitm.edu.my).

V.K.S. Liew is with The Faculty of Economics and Business, University Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia (e-mail: ksiew@feb.unimas.edu.my).