

Chapter 137

What Accounts for the Differences in Internet Diffusion Rates Around the World?

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ABSTRACT

Clearly, the internet and its applications are pivotal in facilitating the economic activities of nations as well as significantly influencing an individual's work and life. However, the fact is that the internet diffusion rates remain vastly uneven across nations. Why? This chapter attempts to identify some of the key economic, political, cultural, technological, and individual factors that influence the diffusion rates of the internet across the nations of the world. Support for the stated factors is provided by citing existing research studies conducted across many nations. Further, a comprehensive understanding of the factors germane to the diffusion of the internet is essential in formulating and implementing policies that spur the availability and usage of the internet.

INTRODUCTION

The literature is replete with studies that indicate a strong link between the adoption and use of the Internet and economic growth not only for individual citizens but also for national economies. Despite the irrefutable benefits of the Internet, in many countries around the world, the Internet adoption rates remain low. In Africa, according to the 2015 data, 10.7 percent of the households enjoy Internet access at home and about one individual out of five (20.7%) uses the Internet (International Telecommunications Union (ITU), 2016). In contrast, in Europe, these figures are 82.1% and 77.6%, respectively. Figure 1 clearly highlights the gross disparity that exists between the Internet diffusion rates for the Organization for Economic Cooperation and Development (OECD) and Sub Saharan Africa (SSA) countries. Thus, the question of why do these differences exist is worth investigating. And, an understanding of

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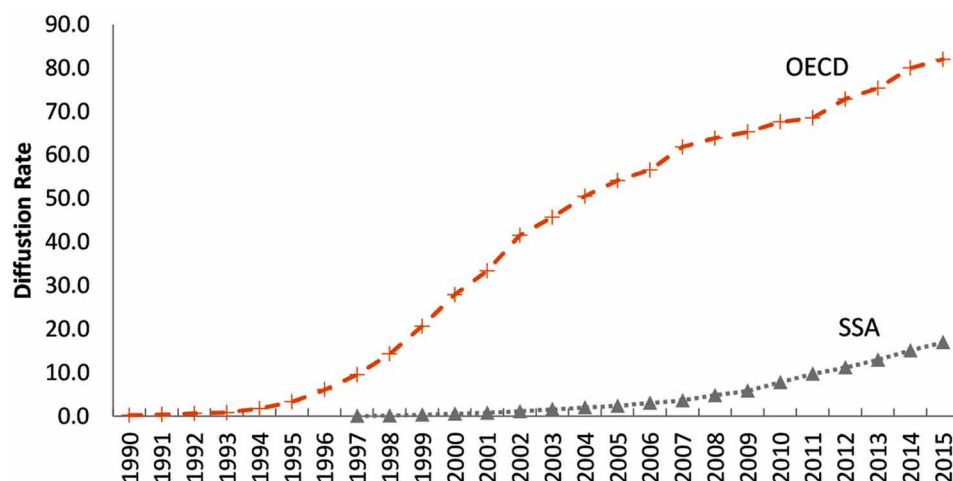
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the factors that promote and/or hamper the adoption of the Internet is warranted as the insights gleaned from this can assist policy makers, economic developmental agencies, and the political leaderships in formulating appropriate strategies and policies.

BACKGROUND

The Internet and the associated technologies are vital in boosting the economic wellbeing of nations and their citizens. Applications such as e-business, voice over IP (VoIP), mobile commerce, and integrated supply chains have become the primary drivers of the growth of economic activities in many countries (Albirini, 2008; Dedrick, Gurbaxani, & Kraemer, 2003; Kenny, 2003; Koh & Chong, 2002). Further, the Internet is providing revenue-generating and skill-enhancing opportunities to individuals across the globe. For individuals, it avails the opportunities to sell things online, collaborate with others at far-flung places, learn new skills, access data/information quickly, and communicate rapidly (Chavula, 2013; James, 2008; Larson & Murray, 2008; Laguerre, 2013). Adoption and use of the Internet and other technologies have boosted trade and globalization leading to improved GDP (Albirini, 2008; Kuppusamy, M. & Santhapparaj, A.S., 2005; Lawrence, 2002; Raheel, Karim, Saleem & Bharwani, 2012). In fact, the 2015 Global Information Technology Report asserts that digital technologies can boost global economic output and creates new economic opportunities for individuals particularly in countries with very low technology penetration rates. The report also claims that a 10% increase in a country's telecommunications infrastructure boosts the GDP by nearly 2.8 percentage points provided the country first achieved a certain minimum threshold of digitization. The threshold is estimated to be about 24 of the population. The 2013 Global Information Technology Report had claimed that a doubling of mobile data usage increases GDP per capita by $\frac{1}{2}$ a percent point. Accelerated economic growth of India and China in the last decade is also a prime example of how Information and Communication Technologies (ICT) in concert with appropriate economic, intellectual property protection, and infrastructure improvement policies promote rapid economic development (Also see, Global Information Technology Report, 2015).

Figure 1. Internet Diffusion rates for OECD and Sub Saharan Africa (SSA) – 1990-2015



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