**Technological infrastructure, human capital and the BGFs performance in the Asia-Pacific region**

**by**

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**Brief overview**

This paper sheds light on the impact of technological infrastructure and human capital on the performance and growth of Born-global firms (BGFs). Since, these firms serve cross border clients before capturing the local market, it is important to study how cross border domestic technical and human resource capital determine their success. The majority of BGFs originates from well developed countries with advanced information and technological infrastructure, strong legal and contract enforcement, higher labor skills and literacy levels among others. These aforementioned factors contribute to the swift inception and launch of the BGFs. In contrast, the long run performance and sustainability depends on the technological infrastructure, human capital, and other macroeconomic factors in the host country. As these types of firms have greater affairs abroad as compared to their domestic market, it is worth investigating the cross-border market dynamics to determine their potential growth and performance.

**To examine the factors that determine success or failure and performance of BGFs**,

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we collect the data from various sources, such as Global financial development database, the World Bank, International Monetary Fund, Bloomberg, and international telecommunication union. We merge cross country datasets with firm level indicators in the specific country and year. Consequently, we obtain an unbalanced panel data for our sample of Asia-Pacific region. Table 1 presents detailed information of our variables of concerns and their respective sources. We list several alternate proxies to measure human capital and technological infrastructure, that will allow us to capture the impact of each dimension in a more comprehensive way. We will also construct index of the technological infrastructure and the index of human capital with the help of principal component analysis. The appropriate methodology that could be used here is pooled regression, fixed/random effects, instrument variable regression or GMM, Generalized method of moments.

**Keywords**: Technology, Human Capital, BGFs, performance and sustainability.

**Table 1: Variables and sources**

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| **Category** | **Variables** | **Source** |
| **Financial Sector Development** | Banking sector development and Stock Market | Global Financial Development Database/IMF |
| **Macro-Economic Factors** | GDP growth,  Trade Openness,  Foreign direct investment,  Government expenditure,  Contract enforcement,  Property rights protection,  Business environment,  Ease of doing business,  Competition, informality,  Inflation rate,  Unemployment rate,  Gross domestic fixed capital formation | World Bank Development Indicators/ Enterprise Surveys/Doing Business |
| **Firm Level Variables** | Firm Size, Age, Industry, Market Capitalization, return on assets, return on equity, Return on invested capital, sales growth, profitability, debt ratio | Bloomberg/World scope |
| **Human Capital** | Average years of schooling,  The proportion of the workforce that has completed high-school education or above,  Jorgenson Fraumeni (J-F) lifetime income-based approach.  Share of population enrolled in colleges and universities,  Educated workforce and training,  Labor regulations, minimum wage,  Primary Schooling Enrollment (% of Age Group),  Secondary Schooling (% of Age Group),  Literacy rate,  Public Spending on Education (% of GDP),  Public spending on health (% of GDP),  Life Expectancy,  Human capital index (UN) | World Bank/United Nations |
| **ICT infrastructure indicators** | Fixed-broadband subscriptions per 100 inhabitants,  Percentage of households with a broadband Internet connection via home computer,  Internet servers per million population,  Percentage of individuals using the Internet,  Mobile cellular subscriptions per 100 people,  Transportation infrastructure—rail line kilometers, road length(km) to population,  Government ICT capital expenditure | International Telecommunication Union/ITU |
| **Other ICT measures** | Online Service Index,  E-Government Index,  Percentage of households that access electricity,  Percentage of renewable energy, | ITU/United Nations/ International Renewable Energy Agency (IRENA) |