



IDENTIFYING THE MAJOR DRIVERS OF ENTREPRENEURIAL GROWTH

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Abstract- Since entrepreneurs are the pioneers who discover novel ideas that ignite economic activity, the necessity for entrepreneurship for economic growth has always been critical throughout the history of prosperous nations and established economies. In the current era, entrepreneurship is a major factor in determining sustainable growth. The majority of employment is created by small enterprises founded by individuals with an entrepreneurial mindset; many of them form enormous corporations. Higher self-esteem, the ability to exercise creative freedom, and an all-around stronger sense of control over one's own life are typically stated in terms of entrepreneurship. Numerous economists and educators hold that these kinds of seasoned businesspeople generate the vibrant entrepreneurial culture that takes advantage of individual and group economic and social success at the sub-national, national, and worldwide levels. A body of literature describes the many types of entrepreneurship, which are crucial for understanding how the economy, jobs, and population are growing. This study's objective is to pinpoint the elements along with the significant contributions of education, R&D, and other activities that explain the entrepreneurial potential and abilities, and secondarily to look at how those abilities affect employment and economic growth. A micro panel data strategy using several economic models and econometric estimate methods (such as Stepwise Least Square with Forward Selection method and Pooled Least Square without Random and Fixed Effects) is utilised to complete the assignment.

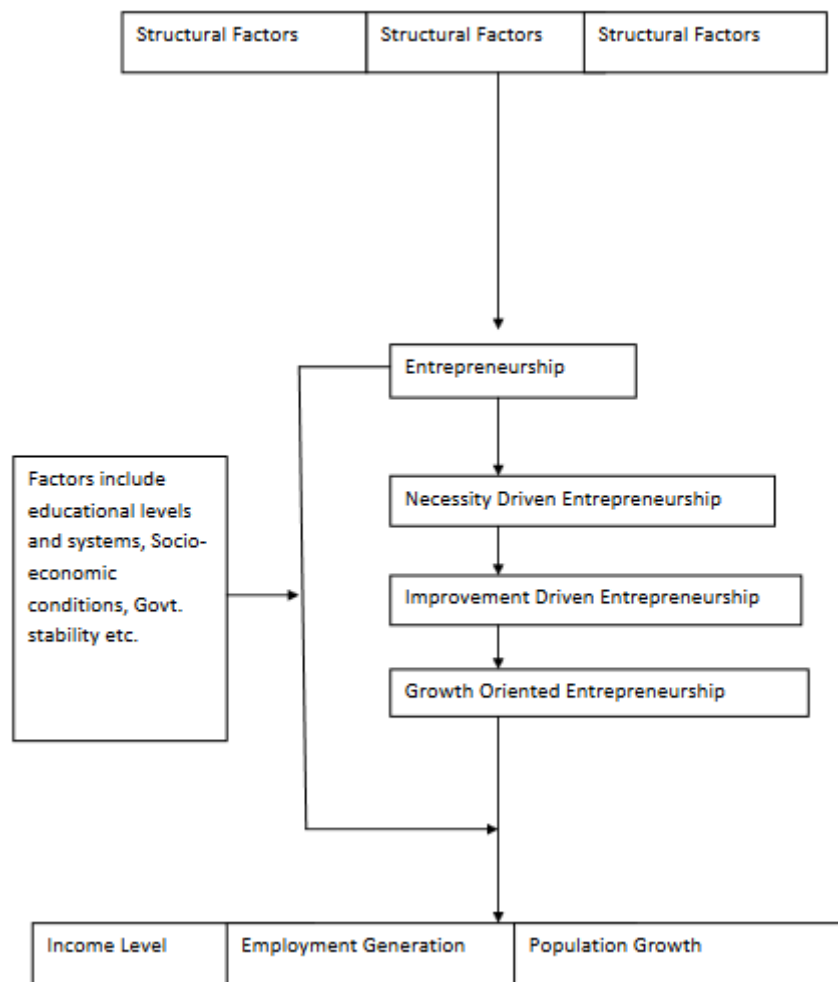
Keywords— *Identifying, Major Drivers, Entrepreneurial Growth, Majority of Employment, R&D.*

INTRODUCTION

The need for entrepreneurs for economic development has always been crucial in the in history because they are the leaders who invent innovative ideas that give spark to economic activities. They are responsible for the combination of factors of production by capital formation, creating employment opportunities, wealth distribution that facilitates development and growth. A well explained definition of entrepreneurship in the words of Wennekers and Thurik (1999) that successfully makes the functional roles of entrepreneurs is: "...the manifest ability and willingness of individuals, on their own, in teams within and outside existing organizations, to perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product-market combinations) and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions." (46–47) High and sustained economic growth is the fundamental objective of every developed or developing country's governmental policy. Economic growth is a long term expansion of the productive potential of the economy. It generates employment in the economy and raises the living standards of the nation. Economic growth promotes business activities in private sector, increases company profits and enhances investor confidence.. Growth process, in general, of the country is profoundly influenced by entrepreneurial activities at different levels. Entrepreneurship is a key determinant of sustainable growth in modern time. Mostly jobs are produced by small businesses started by entrepreneurial mind persons, many of them set up large companies. Entrepreneurship is frequently expressed in terms of higher self esteem, to exercise creative freedoms, and an overall greater sense of control over their own lives. Many economists and educators believe that these types of experienced entrepreneurs foster the robust entrepreneurial culture that exploit personal and communal economic and social success at sub-national, national, and international level. Education starting from elementary school to degree programs and learning activities develop the Standards for supporting Performance Indicators in students. More the



challenging educational activities and experiences; more will be the discoveries, innovations ideas that enable individuals to develop the insight needed to discover and create entrepreneurial opportunities. These results in high expertise to start and manage own businesses to take advantage of these opportunities. The need for entrepreneurship for sustainable growth becomes more important for Asia as this region is the home of sixty percent of the world population with rich natural resources. Almost in all Asian economies entrepreneurial opportunities are low because of narrow industrial zones, limited export sector (except China), weak private sector and limited internal markets. So to promote the entrepreneurial education, trainings and seminars is crucial for Asia.



Entrepreneurial education can certainly impact an apprentice at all levels in a variety of manners. But there are some other factors like govt. stability, patent rights, institutions, research & development socio economic conditions, investment profile and consumption factors that can influenced the growth process. In current years policy makers have publicized increasing interest in the role of Entrepreneurship to promote economic growth and development. This has been stimulated by the rapid growth of the business sector in Asian Economies such as China, Brazil and India. As shown in the figure below, there are structural, economic, institutional and geographical factors which generate and promote entrepreneurship at its different stages: Necessity Based Entrepreneurship, Improvement Driven Entrepreneurship and Growth Led Entrepreneurship. Further, it explains the way those factors affect economic growth and employment generation indirectly through promoting entrepreneurship or directly. The task of this study is to identify those factors along with the role of education, Research and Development activities which significantly explain the entrepreneurial potential and skills and at the second stage, to examine the impact of those entrepreneurial skills on



economic growth and employment. To complete the task, micro panel data approach with different economic models and econometric estimation techniques (i.e. Stepwise Least Square with Forward Selection method and Pooled Least Square without random and fixed effects) is used. The panel data includes the observations on eight upper middle and lower middle income countries over the period ranging from 2005 to 2011.

LITERATURE REVIEW

Richard Cantillon (1955) introduces the term entrepreneur first time in the pages of economic literature. According to Van de Klundert and Smulders, (1992) entrepreneurship is a “creative destruction”. The different historical arguments of an economist give an expanded perspective on the term “Entrepreneurship” as it is a fundamental agent in most production, distribution and Growth theories. A lot of studies have been done about connection between entrepreneurship and economic growth. The new classical economist focused that steady state equilibrium is only possible under the umbrella of strong entrepreneurship for they are the innovator and the founder of economics of innovation. Now question is that what are the forces and basic circumstances that imprint strong entrepreneurship. Solow & Swan (1970) believed that these are the labor and capital which contribute in the process of economic expansion. Technological change remains as exogenous (Manna from Heaven). The basic idea in endogenous growth theory was that these are the endogenous variables that effect productivity growth through entrepreneurship. The new classical axioms of

perfect competition are strongly restricted incentive for innovative opportunities. The models of general equilibrium do not talk about dynamics of entrepreneurship. In Romer’s (1990) version research sector is tank engine of growth by assuming increasing returns to scale as it provides the monopolist the justification of monopolistic competition. The blue prints of new Variety of capital goods that are produced and used in goods producing sector (Chamberlin 1933). Lucas, (1978) explored the fact that Education increases managerial abilities and thus the propensity to become an entrepreneur to handle with complex business environment. Throughout intellectual history, the entrepreneur has worn many faces and fulfilled many roles. A lot of distinct roles for the entrepreneur have been identified in the economic literature (Hébert 1982). Shultz (1980) thought quantity and quality both need to be addressed for economic growth that are controlled through the abilities of entrepreneurs. Therefore it is the entrepreneur who is responsible for restoring equilibrium of economic growth. But endogenous growth theory is silent on the underlying conditions needed for entrepreneurship and innovation. Peretto (1999) found that growth is driven by the process of technological advance and knowledge accumulation brought about by R&D efforts brought by owners of the firms. Baumol (1990) has mentioned several forms of entrepreneurship. He further explains that entrepreneur is an individual who is creative enough to add his own wealth and prestige. But overall environment is tremendous importance in determination of innovative entrepreneurial process. Different dimension of entrepreneurship has been studied by economists: Lucas is of the opinion that entrepreneurial attitude is the deterministic element between the worker and employer. Calvo and Wellisz (1980) extended the Lucas’ paper and examined the role of individual capability, age, and knowledge on entrepreneurial allocation. Gordon (1998) analyzed the impact of fiscal policy especially govt. stability, socio-economic conditions, tax burden and incentives in the U.S. economy. Kihlstrom and Laffont (1979) study risk aversion and Van Praag and Cramer (2001) extend it to include individual abilities, subsidies and investment strategy to the engine of entrepreneurial activity. Eakin et al. (1994) and Quadrini (2000) have mentioned the financial constraints on entrepreneurship especially liquidity and savings. Blanchflower (2000) found that self-employment is high for those at the tail of the education distribution. Individuals with the least education have the highest probability of being self- employed which also confirm the views of Le (1999). Acs et al. (2005) using country-level data for the years 1981-1998 has empirically examined through fixed effect and a simultaneous model. They have introduced variables such as



investment in research and development, self employment rate and level of entrepreneurship. They concluded that countries with higher degree of education entrepreneurial activity and training are on higher steady state. Audretsch and Keilbach (2005) introduced the concept of entrepreneurship capital, referring to society's capacity to create entrepreneurial activity specifically to generate new firms. Their study measured the impact of entrepreneurship on regional labor productivity and on the regional growth of labor productivity and employment generation in Germany. Entrepreneurship capital was measured using the number of startup enterprises relative to the region's population. In additions they involve R&D as well as greater financial risks. The results revealed that entrepreneurship capital significantly affect a region's labor productivity. However, the growth of labor productivity significant effects only for R&D based industries. Van Stel and Suddle (2005) inspect the relationship between new firm configuration and change in regional employment for the Netherlands. They have measured the time and sector wise the degree of urbanization. The results showed the employment growth as the dependent variable regressed against the startup rate, wage growth, and population density. To check asymmetry data was divided into two time periods and that confirmed the impact of new firm's growth to employment growth has been stable and was the same in both periods. Camp (2005) had examined the efficiency of entrepreneurial regions and least entrepreneurial regions in the U.S. and reported that the former had 109 percent higher productivity, 125 percent higher employment growth and 58 percent higher wage growth as compared to the later. This study also chains the view that entrepreneurship is the link between innovation and regional economic growth that ultimately is road map to economic development. The results exposed significant coefficients for entrepreneurship activity, and high levels of expected variation in growth Henderson (2006) studied the effect of entrepreneurship activity and economic growth for urban and rural areas. The empirical results imply that entrepreneurial activity is positively affecting employment growth. Considering the analysis between metropolitan and non-metropolitan areas, the study found that employment growth was stronger in urban areas rather than in rural areas. However, there is no significant difference on the relationship between high growth business startups and employment growth between urban and rural areas. Vijverberg (2008) provides a meta-analysis of empirical studies into the impact of formal schooling on entrepreneurship selection and performance in developed countries. Five main conclusions result from this meta-analysis. First, the impact of education on selection into entrepreneurship is insignificant. Second, the effect of education on performance is positive and significant. Third, the return to a marginal year of schooling is 6.1% for an entrepreneur. Fourth, the effect of education on earnings is smaller for entrepreneurs than for employees in Europe, but larger in the USA. Fifth, the returns to schooling in entrepreneurship are higher in the USA than in Europe, higher for females than for males, and lower for non-whites or immigrants. The conclusion provides a number of policy implications to move the research frontier in this area of inquiry. The entrepreneurship literature on education can benefit from the technical sophistication used to estimate the returns to schooling for labor force. Skogstrøm 2011 presents a theory on the relationship between educational choice and entrepreneurship in a labor market with asymmetric information. The model shows that, in a labor market where education is used as a signaling device, an imperfect relationship between productivity in education and in the labor market can lead to an equilibrium where a fraction of the high-ability individuals choose to quit school and become entrepreneurs. Le (1999) divided the impact of educational choice for entrepreneurship through signaling channel in the labor market. He found that people having low levels of education with high ability have higher opportunities of entrepreneurship and self employment. Berglann et al. (2011) has also confirmed this fact that entrepreneurship rates were higher among individuals with low levels of education than among individuals with higher levels of education.

TYPES OF DATA AND ESTIMATION TECHNIQUES

We used the panel data for eight, Asian Countries for the period of 2005-2011. The sample economies have been segregated into upper middle income (\$1,006 to \$3,975) and lower middle



income (\$1,005 or below it) grouped by World Bank gross national income (GNI) 2011 calculated by World Bank Atlas Method. Upper Middle income economies include China, Thailand, Turkey and Malaysia. And the lower middle income economies include India, Indonesia, Pakistan and Philippine. The variables used in the study have been collected by different sources such as different types of entrepreneurial activities (Necessity Driven, Opportunity/Improvement Driven and Growth Oriented), GDP growth, per capita income, population Growth, R&D Secondary Education, Employment rate, Govt. Consumption Expenditures, Research and Development Expenditure have been taken from World Development Indicators (WDI) 2012 whereas Investment Profile and Government Stability have been taken from International Country Risk Guide (ICRG). Global Entrepreneurship Monitor, GEM has captured three types of entrepreneurial activities/self employment in the market such as necessity driven, opportunity and growth oriented. These are the entrepreneurs of small, medium and large level enterprises. The necessity driven entrepreneurs are not by choice but by necessity based due to lack of wage employment. The opportunity driven self-employment is by choice, in order to make use of some perceived market opportunity.

DESCRIPTION AND RESULTS

As shown in table1, Population growth, government stability and R&D expenditures explain significantly the variation in total entrepreneurial activity while the impact of socio-economic conditions, govt. consumption expenditures, secondary education and investment profile come out to be insignificant. The impact factor of government stability is the highest. The economic rationale of it is that the government stability ensures the secured opportunities for investment and to start new ventures where the R&D expenditures play its role in garnish the potential faculty of entrepreneurship. Population growth is an important determinant of the demand side of the economy. Capital rush to the country where demand and ultimately market for the product is available. Government stability has significant and encouraging effect on institutional quality that ultimately give boost to entrepreneurial activities Qureshiet al, (2010) and Khan and Saqib (2011) Adnan et.al(2011) where government stability means government is not in crises and there are less cabinet changes. Furthermore Govt expenditures have externalities that enter as a direct input in production function. If Govt is giving importance to more productivity enhancing expenditures it will give boost to entrepreneurial activities. (Stephen J. Turnovsky 2004).

Sr #	Drivers	Entrepreneurial Activity			
		Total	Need Based	Improvement Led	Growth Oriented
1	Govt. Stability	High	High	High	High
2	Govt. Consumption Exp.	Low	Low	Low	Low
3	R&D Expenditures	High	High	High	High
4	Secondary Education	Low	Low	Low	Low
5	Socio-economic condition	Low	Low	Low	Low
6	Investment Profile	Low	Low	Low	Low

Table 1- Entrepreneurial Activity

METHODICAL SETUP

A strand of literature explains different categories of entrepreneurship, which are of paramount importance in explaining the economic growth, employment and population. The first task is to identify those factors along with the role of education, Research and Development activities which significantly explain the entrepreneurial potential and skills and at the second stage, to examine the



impact of those entrepreneurial skills on economic growth and employment. Eliss & William (2011) explain different types of entrepreneurship. The categories of entrepreneurship in quantifiable terms are as follows;

$$E_n = E_{1n} + E_{2n} + E_{3n}$$

Where

E_n = Total Entrepreneurial Activity

E_{1n} = Necessity Driven Entrepreneurship Activity

E_{2n} = Improvement Driven Opportunity Entrepreneurial Activity

E_{3n} = Growth Expectations of Entrepreneurial Activity

$$E_n = E_{1n} + E_{2n} + E_{3n}$$

$$E_n = f(g, pg, PG, PR, Ins, SE, SEm, GS, R \& DE, Inv, TO) \quad (1)$$

$$E_{1n} = f(g, pg, PG, PR, Ins, SE, SEm, GS, R \& DE, Inv, TO) \quad (2)$$

$$E_{2n} = f(g, pg, PG, PR, Ins, SE, SEm, GS, R \& DE, Inv, TO) \quad (3)$$

$$E_{3n} = f(g, pg, PG, PR, Ins, SE, SEm, GS, R \& DE, Inv, TO) \quad (4)$$

Where;

PR= Socio-economic conditions and

Ins. =Institutions

At first stage, we select those factors which explain all types of entrepreneurial activities and skills to make the analysis more policy oriented. The functional forms made below are consistent with the Eliss and William (2011). Our contribution is that we incorporated other economic and structural factors and redefined these variables. The equation represents the general functional form of production function that exhibit constant elasticity of substitution equal unity everywhere and is linear homogeneous.

CONCLUSION

Table 1 lists the factors that influence entrepreneurship in descending order of importance based on the analysis done in this study. Government stability is vital at all stages of entrepreneurial activity, including overall, need-based, improvement-led, and growth-oriented, as illustrated in the table. Any nation should take steps to guarantee government stability because it fosters public trust in the continuity of policies, particularly those that pertain to small- or large-scale economic (commercial) activity. These policies include those relating to investments, taxes, and the creation of industrial cities, among others. Govt. consumption expenditures turn out to be the second important driver of entrepreneurial activities. This factor again plays a key role at all stages of entrepreneurial activities. The government should initiate such policies which increases govt. consumption expenditures. These



policies include economic policies, youth entrepreneurship program initiated recently in Pakistan, Loan scheme with small amounts to encourage household business, cottage industries and small scale industries. The impact of government consumption expenditure increases, if it is used through micro-finance schemes. In upper middle and lower middle income countries, the R&D expenditures help in searching new avenues of establishing new businesses with small amount in shortest span of time and help in generating employment level. Secondary education helps both in generating need based entrepreneurial activities and then still plays pivotal role in transforming need based entrepreneurial activities into improvement led activities. Socio-economic conditions help to generate in improvement led entrepreneurial activities and then to transform them into growth oriented entrepreneurial activities.

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