

**ENTREPRENEURSHIP AND DEVELOPMENT IN ASIA**

**By**

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### **ABSTRACT**

Both theory and evidence suggest that entrepreneurial activity can be a source of job creation and economic growth. Numerous programs have been initiated by governments and international development organizations to stimulate and support entrepreneurs in both developing and developed countries of Asia. Many such programs are focused on the very poor. Large public and private investments have been made. This paper reviews some of the theory and evidence about the role of entrepreneurial activity in economic development and poverty alleviation. The relationship is shown to be complex—entrepreneurial activity appears to be neither necessary nor sufficient for economic development to occur. Possible explanations of the role of entrepreneurship in economic development are discussed to suggest future research.

**Key words: entrepreneurial activity, economic growth, development, poverty, Asia.**

# ENTREPRENEURSHIP AND DEVELOPMENT IN ASIA

## EXECUTIVE SUMMARY

Entrepreneurship has been given a central role in economic development. Government policy makers, international development organizations, and academics see entrepreneurship as a key mechanism for job creation and economic growth. Numerous programs and considerable resources have been targeted to encourage and strengthen entrepreneurship in developing countries in Asia, as in other places around the world. This paper reviews the empirical research on the effects of entrepreneurial activity on economic development. The major finding is that little evidence exists to support the hypothesized positive effect of entrepreneurial activity on economic development, not because the studies are negative, but because they have not been done.

The theoretical case for encouraging entrepreneurial activity to foster economic development is widely accepted and apparently sound. Entrepreneurs are thought to play critical roles in innovation and resource reallocation. And these activities are seen to be central to economic growth and job creation. Empirical research in developed countries shows that small and medium sized firms (SME's) are more innovative and do create more jobs than larger firms. How this translates into developing countries, especially ones where infrastructure is poor, remains an open question.

Anecdotal evidence, mostly case studies, suggests that entrepreneurial activity can bring positive economic results, even among the least well off. For example, microloan programs have been popular. But new ventures are inherently risky, especially when founded by inexperienced entrepreneurs in challenging environments. Hence, the need for empirical research to measure the effects of entrepreneurial activity on economic development. Much empirical research has been done over the past five years on entrepreneurial ventures in developing Asian countries. We now know a considerable amount about the factors influencing entrepreneurs to start new ventures, the types of firms they build, how they are financed, the role of government policies, the influence of culture, and so on. But little research has been done on the role of entrepreneurship in economic development.

One prominent ongoing study, The Global Entrepreneurship Monitor, has been measuring entrepreneurial activity around the world, including a number of Asian countries. Their findings offer at least the possibility of linking economic development with entrepreneurial activity. But an initial look at the findings indicates that the relationship is complex. Entrepreneurial activity is not strongly related to economic growth worldwide, and in Asia, it is negatively related to current level of economic development.

The existing evidence suggests that entrepreneurial activity is neither necessary nor sufficient for economic development. Entrepreneurial activity may, however, play a key role in adaptiveness and resilience to changing conditions or economic shocks, and hence be important for long term development. There is also a good argument for entrepreneurial activity as the best means of creating sustainable economic development with desirable preservation of environment and culture.

Empirical research is needed to understand the link between entrepreneurial activity and economic development in Asia. It may be difficult to measure the effect of entrepreneurial activity on economy-wide growth or other aggregate development measures. But it is possible to investigate the effects of entrepreneurial activity on intermediate results like job creation, wealth creation, and so on. Given the attention and money given to support entrepreneurial activity to foster economic development, better understanding of the effects seems warranted.

## INTRODUCTION

Entrepreneurship is widely seen as one of the best mechanisms for economic development (McMillan & Woodruff, 2002; Xinhua, 2002; Jakarta Post, 2002; Yu, 2000; Einhorn, et al., 1999; Cecora, 1999; Lee & Chan, 1998). In policy statements and research papers, references abound to Schumpeter's concept of creative destruction and Kirzner's notions of opportunity alertness and exploitation in order to highlight the role of entrepreneurs in the economy (e.g., Yu, 2000). Economic growth and development are widely thought to be driven by entrepreneurial activity. From the most developed Asian countries such as Japan and Singapore, to the least developed such as Laos and Viet Nam, governments are seeking to foster entrepreneurship to strengthen their economies. International aid organizations have given entrepreneurship a prominent role in their development programs, especially among the rural poor. The Organization for Economic Cooperation and Development (OECD), for example, in its latest biennial report on small and medium enterprises states that "it is the vitality of the entrepreneurial sector that drives business dynamics...and fuels overall economic growth." (OECD, 2000)

So what does the empirical research show about entrepreneurial activity in Asia? There has been considerable research on entrepreneurs and their activities in Asian countries over the last 5 years. We now have knowledge of the factors influencing entrepreneurs to start new ventures (e.g., Ang & Hong, 2000; Chung & Busenitz, 2001), the types of firms they build (e.g., Patra, 2002; Tan, 1999; Yu, 1998), how they are financed (e.g., Cook, 2001; Tashiro, 1999), the role of government policies (e.g., Lee & Chan, 1998; Imai & Kawagoe, 2000; Tan & Yadong, 1998), the influence of culture (Gomez & Hsin-Huang, 2001; Zapalska & Edwards, 2001; Sorenson, 2000; Cummings, 1996; Lam & Paltiel, 1994; Redding, 1990) and so on. But what has been the impact on economic development? In particular, what has been the impact on the least well off? Little research has focused on these questions. Young entrepreneurial firms are inherently risky ventures and prone to failure, especially when founded by inexperienced entrepreneurs. Hence the policies of public support for entrepreneurship deserve examination and evaluation.

In this paper we examine the evidence linking a nation's economic development with entrepreneurship, particularly in Asia. Not much research has been done on this global question. Most of the empirical studies focus on the results of specific programs or policies in particular regions (e.g., Anderson, 2002; Dumas, 2001; Jongeward, 2001). One prominent international study has been looking at the relationship between entrepreneurship and national economic development (Reynolds, et al., 2002a), however, the findings are inconclusive. Anecdotal evidence from Asia suggests that private entrepreneurial activity is neither necessary nor sufficient for economic development to occur. And there is little evidence of the effects of entrepreneurial activity on the least well off.

The paper is organized as follows. First we briefly summarize the economic theory of entrepreneurship and its role in economic development. Next we survey the policies and activities of governments and international development organizations that support entrepreneurship as part of their economic development efforts. After reviewing some available evidence about the effects of entrepreneurial activity on economic development, the paper goes

on to consider alternative hypotheses about the role of entrepreneurship in economic development and poverty reduction and make suggestions for future research.

## **ECONOMIC THEORY**

Schumpeter's concept of creative destruction (Schumpeter, 1961) is widely cited in the entrepreneurship literature as the mechanism by which entrepreneurial activity produces economic development. In Schumpeter's view, new firms arise to challenge and displace existing firms and industries with new technologies or other innovative advantages. Through this process, innovations that yield greater productivity are introduced and spread through the economy, hence contributing to economic development. Another view places the entrepreneur in a different but perhaps more central role as the coordinator of economic resources and activities (Formaini, 2001). Entrepreneurs are alert to opportunities that require resource reallocation and thereby provide the driving force for the economy (Kirzner, 2000). They are the intermediaries and market makers (Peng & Wang, 2002). In one view, entrepreneurs play a disequilibrating role, in the other they are an equilibrating force. Either way, or both ways, entrepreneurs are sources of economic development.

In the neoclassical economic theory of development, entrepreneurs are barely mentioned (see e.g., Todaro, 1997). But the policy recommendations that have emerged from that enduring paradigm, such as deregulation, lowering trade barriers, privatization, and reliance on markets, are clearly conducive to entrepreneurship. Economists and international development organizations have been pursuing these free market objectives since at least the early 1980's. More recent policies supporting entrepreneurship seem to have evolved out of the same theoretical tradition.

## **GOVERNMENT POLICY**

Any and all of the various theories about entrepreneurs in the economy have been used to support government policy favoring entrepreneurial activity. Entrepreneurial activity and supportive government policies have been cited as a key reason for the strength of the US economy by notable economists like Alan Greenspan (Greenspan, 2000), and Lawrence Summers (Henig, 2000) as well as a driving force behind the success of the Asian tigers (Gomez, 1995). Indeed, the development of the US economy in the late 20<sup>th</sup> century through entrepreneurship is cited as a model for Asian countries to emulate as they attempt to revitalize their economies (Xinhua, 2002). Of course, the US model is recognized to include social and cultural elements along with economic activity and government policies. The role of culture in facilitating or hindering entrepreneurial activity across Asia has been the subject of considerable research (e.g., Gomez & Hsin-Huang, 2001; Zapalska & Edwards, 2001; Sorenson, 2000; Cummings, 1996; Lam & Paltiel, 1994; Redding, 1990). But in this paper we are concerned with the effects of entrepreneurial activity rather than the sources or hindrances.

The many efforts to stimulate the development of "new economy" enterprises across Asia are good examples of government policy to promote entrepreneurial activity. The "new economy" in the West, particularly in the US, is characterized by strong entrepreneurial activity creating new firms and new industries based on new information and other technologies. Across Asia's

tigers and other Asian countries, governments have been actively promoting “new economy” entrepreneurs and enterprises. A sample of policies follows (Einhorn et al., 1999; Asiaweek, 1999):

**SOUTH KOREA** Government now promoting small and midsize companies, rather than chaebol, with venture capital, technical help, and training. Developing \$30 billion Media Valley project to spawn tech startups and lure foreign investment. Deregulation of retail, telecom, and banking spurring competition.

**SINGAPORE** Government is investing heavily in infrastructure to promote knowledge-based industries like multimedia software and entertainment, as well as quick-response manufacturing services. Becoming regional hub for higher education and health care. Helping Net startups with venture capital and easier public-listing rules. Slowly opening telecom.

**HONG KONG** Aggressively deregulating telecom, sparking tremendous competition and opportunities for newcomers. Plans to open pay-TV markets. Now eager to ease the economy’s dependence on property, banking, and the China trade, government is pushing Cyberport multimedia park and launching a Nasdaq-style bourse.

**MALAYSIA** Still plunging ahead with giant Multimedia Super Corridor project, though capital controls, political uncertainties, and Internet censorship have scared investors. New stock exchange for startups also getting off to slow start. Multinationals like British Telecom are looking to invest.

**INDONESIA** Abandoning dreams of indigenous aerospace and export-oriented car industries, the new government hopes to spur job growth by investing in education and better promoting labor-intensive manufacturing and agribusiness. Has lifted foreign ownership restrictions in banking and retail. But in telecom, deregulation and privatization are slow.

**THAILAND** Lowering barriers to foreign investment in mass retailing and consumer finance. Telecom sector remains a mess, with local players still plagued by debt. Wants to sharply boost education to provide labor pool for more advanced industries while nurturing value-added businesses in traditional sectors like agriculture.

In addition to policies of direct support for entrepreneurial activities, privatization has been a cornerstone of government policies in Asia to create a more competitive business environment that is conducive to productivity, foreign investment, and private entrepreneurship (Doshi, 1994).

International development organizations like the United Nations Development Program (UNDP) and OECD have supported and stimulated these many government efforts to foster entrepreneurial activity in Asia. In its policy statements, the UNDP counts entrepreneurship as an important part of economic development. The following quote from the Executive Secretary of the UN Economic Commission for Europe is illustrative: “The core of the political and economic transformation of any country in transition (CIT) is the creation of the private sector, the development of entrepreneurship and creation of small and medium-sized enterprises (SMEs.) They are considered to be one of the principal driving forces in economic development.” (UNDP, 2002)

With these many governmental and international agency efforts to stimulate entrepreneurship as a (central) part of economic development, we should ask what the evidence shows about the

results. Is there empirical support for the notion that entrepreneurial activity has been helpful for economic development and poverty reduction in Asia? Is it a necessary part of economic development? Could it be a sufficient condition? Or does it depend on the situation? How has entrepreneurship contributed to economic development among the least well off? Below, we review the evidence on entrepreneurship and development in Asia to see if we can begin to answer these questions. First, we review the evidence on entrepreneurial activity both today and historically in Asian countries. Then we consider the relationship between economic development and entrepreneurial activity.

## **ENTREPRENEURSHIP IN ASIA**

Most Asian countries have a long history of entrepreneurship, that may have waxed and waned over time, but is still reflected in their current economic structure. For example, Japan, arguably the most economically developed Asian country, today has a very low level of entrepreneurial activity (Reynolds, et al., 2002a). But its entrepreneurial past is reflected in one of the strongest SME (small and medium enterprise) sectors in the world (Porter, 1990). Major Japanese corporations are known to outsource extensively and rely heavily on the SME sector, perhaps more than in any other developed nation.

For the past three years, the Global Entrepreneurship Monitor (GEM) has been surveying countries around the world to assess their entrepreneurial environment and the effect on economic growth (Reynolds, et al., 2002a). The following quote provides the motivation for the study:

For several years now evidence has accumulated that documents the significant relationship between entrepreneurship and national economic adaptation and expansion. As a result, the rate of public and private investments devoted to entrepreneurial activity has exploded in the hopes of accelerating innovation, technology development, and job creation benefits. Despite the added attention, however, there have been few systematic cross-national comparisons of the level of entrepreneurship, its association with national economic growth, or the factors that influence it over time (Reynolds, et al., 2001).

In the GEM study, the main measure of entrepreneurial activity is Total Entrepreneurial Activity or TEA (an explanation of this measure is provided in the appendix). Table 1 provides the TEA measures for a number of Asian countries taken from the GEM 2002 Executive Report along with additional statistics on each country. The US is included in Table 1 for comparison. TEA is assessed through a large sample survey and the measure gives the percent of the population who are trying start up a new business or are the owner/manager of a business that is less than 42 months old. Only the eight Asian countries shown have been included in the surveys to date. The GEM study also looks at national characteristics that affect the level of entrepreneurial activity, such as economic policies and culture. Country reports are available with more detail.

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Insert Table 1 Here

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From the GEM study we can see a wide variation in entrepreneurial activity across the eight Asian nations. Details in the reports suggest that economic policies, infrastructure and culture vary widely and help to explain entrepreneurial activity.

In a recent book, Dana (1999) provides an informative and practical portrait of the historical, social/cultural, political, and economic context for entrepreneurship in twelve major Asia-Pacific nations. Heterogeneity among these nations is the first important lesson. Very different histories, cultures, current government policies and stages of economic development influence entrepreneurial activity. But there are common themes. Most of the region is less developed and emerging from recent political changes that have opened up entrepreneurial opportunities after a long period of repression. The degree of repression ranged from absolute bans under communist regimes such as the PRC to stifling corruption under dictatorial regimes in Indonesia and the Philippines. Today, all of these nations have adopted market oriented policies and are fostering entrepreneurial activity as part of their economic development. A closer look at two of these nations is illustrative.

China has a long history of small business enterprise despite Confucian principles which give merchants low status in society. Feudalism predominated through most of China's history, but, as in Europe, a merchant class arose in the towns and cities to conduct commerce and provide services. After the PRC was established in 1949, state enterprise replaced private entrepreneurship. It was not until 1979 that reforms were made to legalize entrepreneurship. Since that time, a number of national programs have been implemented to support and foster entrepreneurship. Perhaps the two most significant have been the creation of the Special Economic Zones where private business has thrived and the targeted promotion of exports that have made China one of the world's largest trading nations. Overseas Chinese entrepreneurs from places like Hong Kong, Singapore, and Taiwan spearheaded the creation of new private firms. Today, the PRC has a high level of entrepreneurial activity (Reynolds, et al., 2002a) that is thought to have played a significant role in China's rapid economic growth and development (ADB, 2002a). SME's account for most new job creation and the private sector as a whole now produces about 60% of GDP (ADB, 2002a).

Indonesia was colonized by the Dutch from 1799 until 1942 when it was overtaken by Japan. Entrepreneurs survived if not thrived during this period. The Dutch controlled banks and large-scale enterprises. Ethnic Chinese were initially traders but branched out into a wide variety of small businesses from services to manufacturing. The ethnic Indonesians were mainly farmers though some had small businesses. After world war two, Indonesia gained independence under a regime that was dominated by strong dictatorial rulers until 1998. During this time, senior government officials, their families, and associates controlled large enterprises and corruption was widespread. A series of six five-year plans for economic development began initially with agricultural reform but progressively focused on support and development of the small enterprise sector. Ethnic Indonesians were favored over ethnic Chinese by many of these assistance programs. The Asian financial crisis of 1998 and ensuing economic problems have hindered business activity (Business Survey Bank Indonesia) and further reduced the ethnic Chinese share of entrepreneurial activity in Indonesia (Dana, 1999). Indonesia has not achieved the same pace or level of economic development as China.

The size and strength of the SME sector within a country provides an indicator of entrepreneurial activity (Sweeney, 1987). Table 2 shows the size of the SME sector in a sample of Asian countries as measured by the percentage of all firms that are SME's and the share of employment provided by SME's. Note that over 90% of all firms are SME's in most Asian countries (as in most other countries around the world). The share of employment is more indicative of the strength of the SME sector. Note the relatively high share in Japan compared to the United States and Singapore, the other two developed nations. For the less developed nations, the share of employment provided by SME's might reflect underdeveloped large business sectors more than strong SME sectors. Better measures of the strength of the SME sector are needed, such as share of GDP, share on new job creation, valued added, and so on.

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Insert Table 2 Here

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## **ECONOMIC DEVELOPMENT IN ASIA**

East Asia has experienced strong economic growth for more than a decade but the region remains in the underdeveloped or less developed category. Overall, 60% of the population lives in rural areas, agriculture is still the largest sector, and poverty is widespread (ADB, 2001). More than 2/3 of the world's poor people live in Asia where the social indicators in many areas are worse than those in Africa (ADB, 2001). The rapid industrialization that has occurred is very unevenly distributed. For example, while the coastal area of eastern China is rapidly industrializing, modernizing, and seeing rising incomes, the vast majority of the interior has not seen much change in its rural agricultural lifestyles and incomes. A similar pattern can be found in most countries in the region.

Asian countries receive considerable attention from international development organizations (Asian Development Bank, World Bank, United Nations Development Program) and development economists. Many development programs target the region and aim to reduce poverty. China has been most successful in reducing poverty rates with recent statistics in the low single digits, not much higher than the developed world. Indonesia, on the other hand, has not had as much success and poverty rates persist near 20% (ADB, 2002a). These two countries reflect the range across Asia, though a few countries are even worse off than Indonesia. India has been a particularly difficult situation with poverty rates well above those of Indonesia (Business India, 2000).

An apparent relationship between economic growth and poverty reduction underlies many of the development programs (ADB, 2002b). Hence the emphasis on programs and policies that stimulate economic growth. Employment is seen as the primary mechanism for alleviating poverty (ADB, 2002b). Support for SME's is a common theme because it is recognized that SME's generate most new jobs. Support for SME's can certainly translate into support for entrepreneurial activity. Indeed, the rhetoric of these agencies suggests they intend to support entrepreneurial activity. The belief is that entrepreneurs are an important part of job creation, economic growth, and poverty reduction (OECD, 2000).

For the least well off in rural areas, employment outside of agriculture is seen as the most

promising means to reduce poverty, as the following quote from the World Bank makes clear.

Although agriculture is generally the predominant source of income for rural households, other sources of income are important and often the better prospect for growth. Intense population pressure on agricultural land, existing small average farm sizes, and demographic trends, mean that even with slowing population growth, rural farming households continue to face limited prospects for improving agricultural incomes. Migration to urban areas with their higher productivity and wage levels is one key escape valve for rural households, and for the poor in particular. Employment in small-scale rural manufacturing or services firms is another. Rapid growth in rural off-farm employment has made a significant contribution to poverty reduction in Indonesia and China. In China, for example, agricultural employment increased by only 39 million between 1978 and 1996, while employment in rural enterprises jumped by 107 million over the same period (World Bank,2002).

## **ENTREPRENEURSHIP AND DEVELOPMENT IN ASIA**

Asia's success in economic development and poverty reduction has inspired governments and development organizations to increase their support for SME's and entrepreneurial activity. In the 1980's, emphasis on creating new economic activities for 'self-generating' growth began to take hold in the development community (e.g. Sweeney, 1987). This theme is reflected in the numerous policies and programs supporting entrepreneurial activity in less developed regions (Cecora, 1999). But for all the policies and programs, there has been little empirical research to assess the effects of increased entrepreneurial activity on economic development and poverty reduction. A number of studies have looked at the effects of specific programs with generally positive conclusions (e.g., Anderson, 2002; Dumas, 2001; Graham & Manning, 2000; Mariotti, 1999; Owuala, 1999; Fadahunsi, 1991). These studies report the relatively short term effects of specific entrepreneurship support programs on fairly narrow target populations of the very poor. And none look at Asia. Still, these positive reports have probably helped to fuel the interest in entrepreneurship support programs among the development community. Similarly, the reported successes of microfinance programs, such as the Grameen Bank in Bangladesh, have spawned many imitators (Qadir, 2000).

On a national scale, one study has shown a relationship between the level of entrepreneurial activity and economic growth. The GEM study found a small but positive relationship between the level of entrepreneurial activity and growth in GDP across a broad sample of countries (see Figure 1). Looking only at the Asian countries in the GEM study, the relationship appears to be stronger, as shown in Figure 2. But, without Japan, the apparent positive relationship in Figure 2 all but disappears.

The relationship between entrepreneurial activity and development is not a simple one. For example, if we were to relate entrepreneurial activity to some measure of development, like income or GDP per capita, the results across Asia would be negative (see Figure 3). The two most developed Asian countries with the highest incomes and greatest GDP per capita, i.e. Japan and Singapore, have the lowest level of entrepreneurial activity. Conversely, the Asian countries with the highest levels of entrepreneurial activity, i.e., India, Thailand, and China, have low incomes and GDP per capita. Similarly, there is a negative relationship across Asia between

entrepreneurial activity and development as measured by the UNDP's human development index (UNDP, 2002) as shown in Figure 4.

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Insert Figures 1 thru 4 Here

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Part of the explanation is that many less developed countries lack employment opportunities and people are driven to entrepreneurship out of necessity. The GEM report distinguishes between opportunity driven and necessity driven entrepreneurship. For example, China has a very high level of necessity driven entrepreneurship. Indeed, the strongest overall positive relationship found in the GEM study is between necessity driven entrepreneurship and economic growth. Total entrepreneurial activity and opportunity driven entrepreneurship did not show a consistent relationship with economic growth. For example, India and especially Thailand have high levels of opportunity driven entrepreneurship, higher than the US, but do not rank high in economic growth. Interestingly, Hong Kong, widely viewed as the entrepreneurial society (Yu, 2000), and one of the more developed Asian economies, ranks low in entrepreneurial activity in the GEM study. So, again, the relationship between development and opportunity driven entrepreneurship is complex.

The pattern suggests that entrepreneurial activity is related to growth and change in development but not necessarily to level of development. Perhaps countries with high levels of entrepreneurial activity are developing more rapidly. Countries that have attained high levels of development may have low levels of entrepreneurial activity today, but in their past they must have had more entrepreneurial activity or taken a longer time to develop. Japan fits well with this thesis as its strong SME sector reflects a past of entrepreneurial activity. The current stagnation in Japan would then reflect the current low level of entrepreneurial activity. But Singapore does not fit so nicely. Singapore has not developed a strong SME sector and has not had a history of high entrepreneurial activity to explain its current high level of development (Foo, et al., 2001). Entrepreneurial activity by the government and foreign direct investment seem to have played the major role in Singapore's economic development. Still, the belief is that Singapore will need to increase its private entrepreneurial activity or suffer stagnation in its development (Xinhua, 2002).

## **HYPOTHESES AND FUTURE RESEARCH**

The patterns of entrepreneurial activity, economic growth, and development across Asia do not create a simple picture. The following discussion of explores three hypotheses about the relationship between entrepreneurial activity and development and provides some tentative conclusions, but additional research is needed to provide greater clarity.

**Hypothesis One:** Strong entrepreneurial activity is necessary for economic development. This strong hypothesis does not seem tenable. In particular, the experiences of Korea and especially Singapore suggest that economic development can proceed very successfully with the growth of the large industrial sector and without the corresponding growth of the SME sector. The main effect seems to be employment and especially employment in relatively well paying jobs, whether they be in large domestic companies, as in Korea, or large foreign companies, as in

Singapore. So entrepreneurship does not appear to be a necessary condition for economic development.

**Hypothesis Two:** Strong entrepreneurial activity is a sufficient condition for economic development. The evidence is more supportive. All of the Asian countries in the GEM study with high levels of entrepreneurial activity are experiencing good economic growth (the connection to development and poverty reduction remains to be made). However, the Asia sample is biased. Only Asian countries with strong economic growth are included in the GEM study to date. Still, among all of the GEM study countries around the world, none has high entrepreneurial activity but low economic growth.

Sufficiency is a strong hypothesis as well, and it is doubtful that further research will support it. It seems likely that other conditions must be present for entrepreneurial activity to generate economic development, infrastructure among them. Infrastructure includes financing, access to markets, available skilled labor supply, and so on. Indeed, many government programs support entrepreneurship through building such infrastructure. Further, most entrepreneurial firms tap into value and wealth created by others in the economy—e.g. by subcontracting to established firms or providing services to consumers with purchasing power from employment with established firms. Making such connections for rural enterprises poses a significant challenge. Entrepreneurial activity by itself is unlikely to be the source of economic growth and development. Rather, changes in the economic structure and market processes within a country that lead to economic growth may occur more quickly when an active entrepreneurial sector is available to implement such changes (Reynolds, 2002b). For example, the high level of entrepreneurial activity in China has been an important part of the growth of private enterprise and improved distribution, and has been cited as an important contributing factor to economic growth, development, and the reduction of poverty (ADB, 2002a). Still, the economic growth and development in China is fueled by foreign investment, restructuring of large domestic enterprise, and export promotion. Entrepreneurial activity seems to play an important part, but not the whole story.

**Hypothesis Three:** Strong entrepreneurial activity can be an important component of economic development that accelerates the process and provides the resiliency and adaptiveness needed in the economy to meet changing conditions. This third hypothesis, though weaker than either necessity or sufficiency, is consistent with the empirical and anecdotal evidence and still provides a strong rationale for public support of entrepreneurial activity. The mechanism is clear—timely pursuit of opportunity. Whether they are innovating or reallocating resources, that is what entrepreneurs do. The degree to which entrepreneurial activity accelerates economic development or improves adaptation to changing conditions requires further empirical investigation. These questions have not been systematically addressed in the research cited here.

Better understanding of the role of entrepreneurial firms in economic development requires better measurement of their impact. The number of people starting new firms is one good measure of the level of entrepreneurial activity. But more direct measures of their impact are needed. For example, on a national scale and relative to established firms (domestic or international), how many jobs are they creating, and how good are those jobs? How much economic value are they adding? What is their contribution to growth in new and developing

sectors of the economy? What is their contribution to employment and incomes among the least well off? Measures that lead to reliable answers to these questions would provide a better understanding of how much, and in what ways, entrepreneurial firms are contributing to economic development. Better longitudinal data on poverty rates would be helpful to understand the impact on poverty alleviation at the national level<sup>1</sup> as well as the regional level.

It may be possible to measure the effect of entrepreneurial activity on the pace of economic development with sufficient longitudinal data. The ongoing GEM study seeks to build such a database on entrepreneurial activity, but good longitudinal data on economic development is also needed. Additional measures to GDP, such as HDI, poverty rates, and more targeted regional measures would be useful to see the national effects as well as the impact on groups such as those least well off.

The degree to which entrepreneurial activity improves an economy's resilience and adaptiveness to changing conditions may be observed through cross-sectional analysis of national economies in response to global events (e.g. the Asian financial crisis) and trends (e.g., the lowering of trade barriers). Are countries with greater entrepreneurial activity able to recover more quickly or restructure more quickly? Definitions and measures of "adaptiveness" and "resiliency" are needed in addition to entrepreneurial activity.

## **DISCUSSION OF PRACTICAL IMPLICATIONS AND RESEARCH NEEDS**

There is one rationale for support of entrepreneurial activity in developing countries we have not addressed—preservation and sustainability of culture and environment. The notion is that indigenous entrepreneurial firms are more likely to incorporate their local culture and preserve their local environment than larger scale enterprises fueled by a national government or foreign investment (e.g., Cecora, 1999). Widespread support for rural micro-enterprises, bottom-up regional development, sustainable development, and so on, reflect the belief that poverty alleviation efforts cannot focus solely on employment and incomes. This suggests the need for broader or alternative measures of development than income or GDP per capita. But local entrepreneurs cannot simply be relied upon to be culturally or environmentally sensitive. As in developed economies, deliberate policies, regulations, and rules are needed to guide business behavior.

The anecdotal and empirical evidence from Asia indicate that a great deal of development can occur without much entrepreneurial activity if it is based on technology transfer and investment from outside. This can take the form of large enterprises if they are facilitated by government policy or foreign investment. But it appears that such development runs its course and needs entrepreneurial activity to sustain and renew growth. Across Asia, governments are promoting and supporting entrepreneurship in the belief that entrepreneurial activity will bring the innovation and resource reallocation they need to continue and strengthen their development. And among the least well off, the rural poor, support for entrepreneurial activity is believed to be the best way to achieve sustainable development. These beliefs are also held by those in

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<sup>1</sup> Poverty rates available from the UN, World Bank, ADB, etc. have too many missing data to be useful for measuring change over time.

international development agencies and academia who promote entrepreneurship in developing countries. Further empirical research on the impact of entrepreneurial activity in Asia could strengthen this view and justify continued public support for entrepreneurship.

#### **APPENDIX: MEASUREMENT OF TOTAL ENTREPRENEURIAL ACTIVITY (TEA)**

The GEM study (Reynolds, 2001) measures Total Entrepreneurial Activity using a survey of the general adult population in each country. The survey question from which TEA is derived is shown below. The surveys are administered by interviews. Basically, TEA is the percentage of the sample who are actively trying to start a new firm or are the owner/managers of an active business less than 42 months old. Some effort has been made by the GEM researchers to get a large and representative sample of the adult population in each country surveyed.

1. Which of the following would apply to you? [Yes, No, Don't Know, Refused]
  - a. You are, alone or with others, currently trying to start a new business, including any type of self-employment
  - b. You are, alone or with others, trying to start a new business or a new venture with your employer – an effort that is part of your normal work
  - c. You are, alone or with others, the owner of a company you help manage

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**Table 1**  
**Selected Asian Statistics**

Country	TEA <sup>1</sup>	GDP/capita (ppp) <sup>2</sup>	HDI <sup>3</sup>	GDP Growth <sup>4</sup> 86-96 avg.
Thailand	18.4	6402	0.762	9.1
India	17.9	2358	0.577	5.9
Korea	14.5	17380	0.882	8.6
China	12.3	3976	0.726	9.9
Singapore	5.9	23356	0.885	8.4
Hong Kong	3.4	25153	0.888	6.3
Japan	1.8	26755	0.933	2.9
United States	10.5	34142	0.939	3.0

<sup>1</sup>Source: (Reynolds et al., 2002)

<sup>2</sup>Source: (ADB, 2002)

<sup>3</sup>Source: (UNDP, 2002)

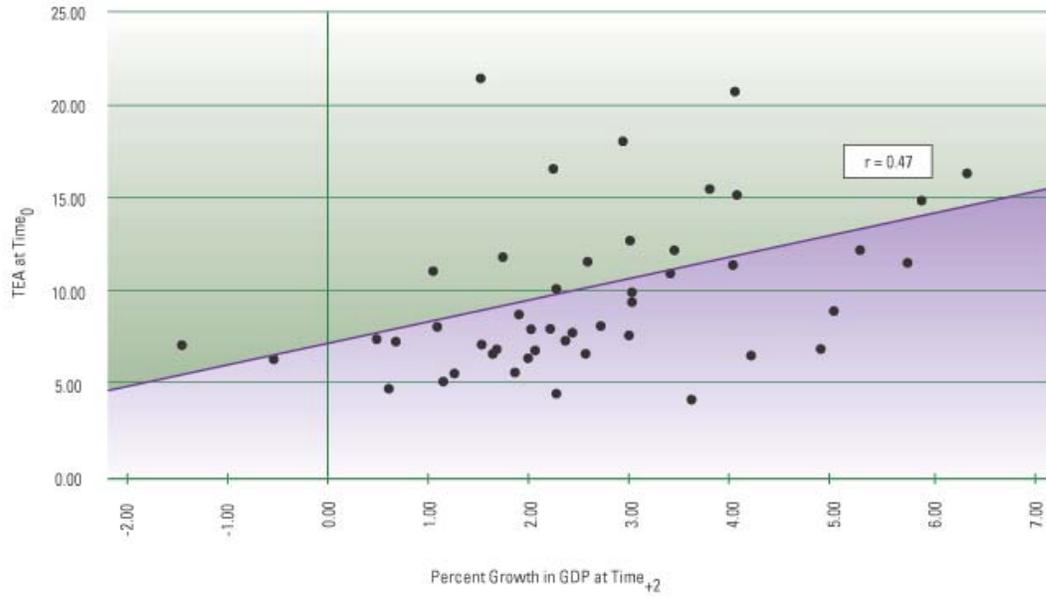
<sup>4</sup>Source: (IMF, 2002)

**Table 2**  
**The Role of SMEs in Asian Economies**

ECONOMY	%SMEs	%Employed by SME's
<b>PRC</b>	84.27%	69.49%
<b>Hong Kong</b>	97.95%	63%
<b>Indonesia</b>	97%	
<b>Japan</b>	99.1%	79.2 %
<b>ROK</b>	99.8%	78.5%
<b>Philippines</b>	98.7%	50%
<b>Singapore</b>	91.42 %	44%
<b>Chinese Taipei</b>	96.77%	68.63%
<b>Thailand</b>	98.63%	73.80%
<b>USA</b>	99.72%	53.67%

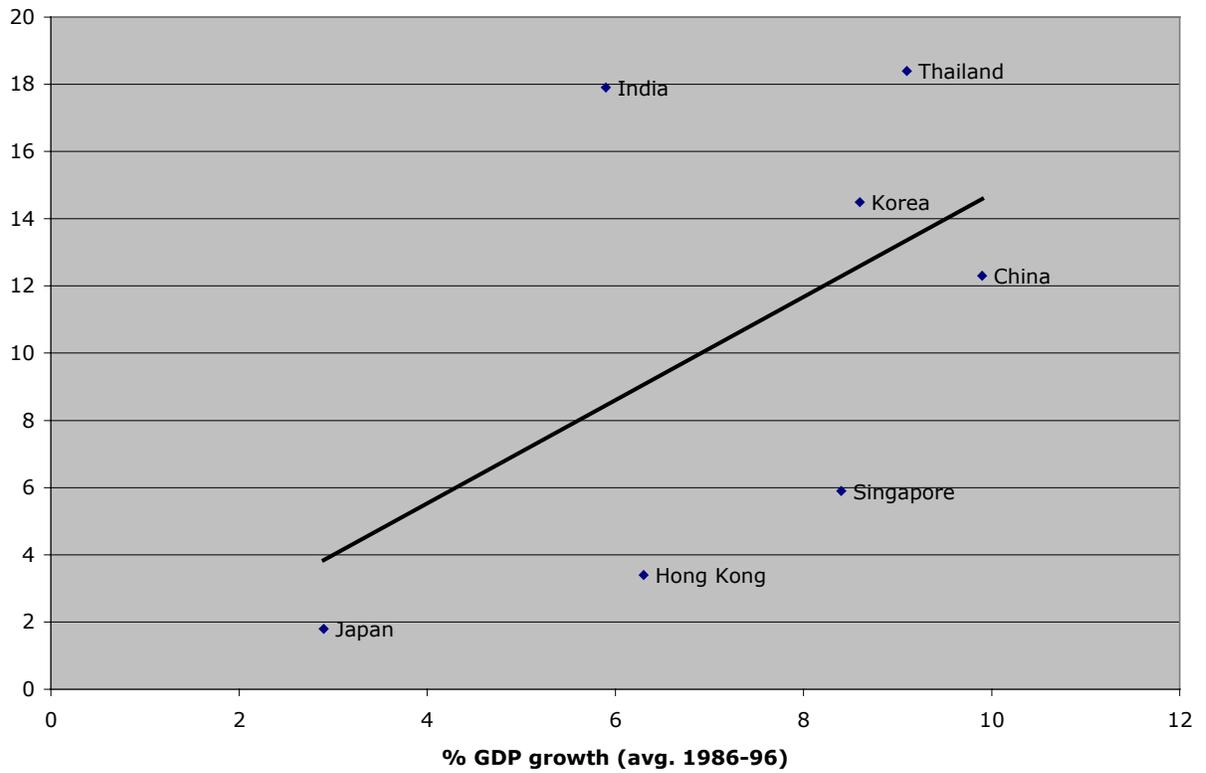
Source: (Lee, et al., 1994).

**Figure 1**  
**Entrepreneurial Activity vs Economic Growth in The GEM Study**



Source: (Reynolds, et al., 2002a)

**Figure 2**  
**Entrepreneurial Activity vs. Economic Growth in Asia**



**Figure 3**  
**Entrepreneurial Activity vs. Economic Development in Asia**

