Toward a Comprehensive Model of Global Entrepreneurship

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ABSTRACT

The author has put forth a Comprehensive Model of Global Entrepreneurship and described the factors that comprise this model. These factors include access to capital, governmental support systems, political and economic systems, private sector support systems, entrepreneurial education, trade associations, internal and external environment; infrastructure, and socio-cultural environment. Most attention is given to access to capital due to the importance of financial needs in relation to start-ups and growing entrepreneurial ventures. The level of these influential factors vary across nations. The author concludes a macro approach in a complex global economy is the best way to understand global entrepreneurship.

INTRODUCTION

Entrepreneurship and small business fuel economic growth. Timmons and Spinelli discuss job creation and quote the research of David L Birch. Birch discovered that 81.5 percent of the net new jobs formed from 1961 to 1976 were the result of new entrepreneurial and growing small firm efforts. Entrepreneurship has also dramatically impacted employment patterns. For example, in 1960, 25 percent of the workforce worked for a Fortune 500 company. In 1980 that number dropped to approximately 20 percent of workers, and by 2006, the percentage had dropped to less than 9 percent (Timmons & Spinelli, 2009).

Trends such as this are important because they demonstrate that growing entrepreneurial companies are adding jobs while well-established Fortune 500 companies are reducing them. This supports the claim that entrepreneurs and small businesses are having an increasing impact on economic growth.

Research on entrepreneurship has increased dramatically in recent years. Most of this research has focused on two areas; the individual attributes of the entrepreneur and technical breakthroughs. These have long been considered the primary stimuli to successful entrepreneurial ventures. Some personal entrepreneurial attributes that have been supported by research are: propensity toward moderate risk, tolerance for ambiguity, and need for achievement; these attributes are considered to be that which drives entrepreneurship.

To illustrate this point, many successful entrepreneurial companies did not exist 20 years ago. These companies were led by individuals who had “the right stuff” and were able to use their personal attributes to pioneer new technologies and innovations such as personal computers and internet selling. Combining the entrepreneurial spirit and technology, entrepreneurs like Bill Gates, Jeff Bezos, and Stephen Jobs were able to grow companies, add jobs, and create wealth. The question remains, are these factors sufficient to create successful ventures? Are there other variables that determine success?

Entrepreneurship research has largely ignored macro-level variables that may influence entrepreneurial activity. An example of this has been cited by Hernando De Soto, who asserts that entrepreneurial growth in America is directly related to the American legal system. He believes that the legal system allows Americans to leverage their assets and thus have access to a primary source of capital for their entrepreneurial ventures (De Soto, 2000). For example, real estate property in the United States has value because it has a deed that offers proof of ownership. This deed is recorded in a way which gives the owner legal title to the property. The equity in this property is often used to raise the capital needed to support an entrepreneurial venture, either through a mortgage or a securitized loan. Without a legal title, this capital cannot be accessed.
The author argues that more attention should be given to research that focuses on macro-level factors. This helps to gain a better understanding of the entrepreneurial process. In support of this argument, there has been both commentary and research conducted. It should not be assumed that research findings in one country directly translates to another country. In this paper, the author focuses on the factors that affect entrepreneurial activity using a cross cultural and macro level approach.

The Global Entrepreneurship Monitor (GEM) research was designed to conduct an annual assessment of the national level of entrepreneurial activity (2008). While this research is useful, the GEM research only covers a small segment of entrepreneurs’ current role in the increasingly the global economy. The GEM project documents and compares entrepreneurial activities across countries. This is important research, but it does not explain why one country flourishes and another remains stagnant. The research does not explain why one country struggles to grow companies beyond a few employees while another continues to grow its entrepreneurial companies to employ many. Current research, including GEM, is not able to answer these questions.

We are proposing that while national and individual entrepreneurship characteristics are important, a global study of entrepreneurship activity should begin at the macro level. In addition to these factors, current research, such as the GEM global reports, focuses on a quantitative analysis of entrepreneurial activities around the world. This has resulted in less attention being given to qualitative data and analysis. Taking qualitative data and analyzing it further is essential to discovering the underlying explanations that contribute to the variations in entrepreneurial activity across countries. Thus, we have focused our research on macro variables which will help to clarify the importance of various qualitative entrepreneurial factors.

Based on our review of entrepreneurial research, we have created a model which we believe explains global entrepreneurial activity. This model describes variables that can be applied to entrepreneurship both across and within nations. The author believes that this approach may explain much of the GEM data and answer questions of why some countries are entrepreneurially rich while others are weak. A multi-variable approach has been applied to fully examine factors that affect all nations.

Figure 1: Comprehensive Model of Factors Leading to Entrepreneurial Activity
EXPLANATORY FACTORS

We will now briefly describe each characteristic in our model, the sub-factors that lie within it, and the effect that it has on entrepreneurial success. Most of our attention will be devoted to access to capital. The author believes this one factor is responsible for much of the variance between national entrepreneurial activity levels. Other variables will be described in less detail. There are numerous sub-factors that lie within each of our variables. Examples will be offered to illustrate these factors.

ACCESS TO CAPITAL

Whether at the start-up or any growth stage, identifying sources of potential capital is one of the major issues that entrepreneurs all over the world must face as they start their businesses. Without this capital, an entrepreneur is lacking essential resources necessary for success. A study completed by the Corporation for Enterprise Development, published in 2001, was reported by Kreft (2003). The study lists eight core elements of an infrastructure necessary for supporting entrepreneurship. Of these eight core elements, six related to an entrepreneur’s ability to access capital. One could conclude from this study, that access to capital plays a pivotal role in entrepreneurial success.

The author was surprised that, given the importance of access to capital, the published research on this topic has been limited. Of the research reported, the findings have been consistent in supporting the need for capital throughout the global economy. One study of young potential entrepreneurs attempting to start a business in the UK found that access to capital was the number one barrier to entry (Patel, 2005). Another study sponsored by the World Bank noted that a major problem facing SMEs in Latin America was the constraint on their ability to access capital.

Research relating to access to capital and entrepreneurs consistently supports the importance of capital. However, little is known about the specific sources of capital available to entrepreneurs. There are numerous sources of capital through which entrepreneurs can gain access. These sources and their availability to entrepreneurs are discussed below.

Personal Funds, Family, and Friends: An entrepreneur’s personal funds serve as the primary source of financing start-ups throughout the world. A study conducted with nations participating in the GEM project found that 62 percent of the entrepreneurial start-up funds were provided through self-funding (GEM, 2006). This is especially true for women entrepreneurs; a 2015 GME United States Report found that women reported self-funding 61% of their total business capital, whereas men reported 50% self-funding (GEM, 2015). Research on start-ups in China found the greatest source of capital coming from personal savings, family and close friends. Chinese entrepreneurs seldom rely on bank loans for their start-up capital (Hussain, Millman & Matlay, 2006).

Microfinance and Microcredit: Microfinance and Microcredit have recently become a major source of funding for entrepreneurs across the globe. Microfinance is typically small scale loans (usually less than €25,000) to entrepreneurs for start-ups and growth (Irwin, 2006). Often, though not always, it is provided by not-for-profit loan funds that have raised capital from charitable and public sources. It is noteworthy that the Nobel Peace Prize in 2006 was awarded to Dr. Muhammad Yunus for his work in providing micro loans to hundreds of small businesses.

An impressive example of the success that microfinance can have on entrepreneurship was highlighted in a GEM study (GEM, 2007). In this study, an entrepreneur, Oscar Javier Rivera Jimenez, hoped to start a business by delivering parts in the Chimalhuacan district, one of the poorer slums outside
of Mexico City. Oscar was able to expand from a single man delivering parts on his bike, to a well-stocked warehouse with nine employees, because of a microfinance loan he received from Compartamos, Latin America’s biggest provider of microfinance. The presence of organizations such as Compartamos can greatly increase an entrepreneur’s ability to grow a business.

Grants: Grants are another potential form of capital for an entrepreneur. Grants are usually in the form of funding awards given to a company or an educational institution to support promising business or technological opportunities. In the United States the Small Business Association offers grants under its Small Business Innovation Research (SBIR) for companies developing new technologies with high potential for commercial success. These types of grants can be a major source of finance for entrepreneurs.

Angel Investors: Angels are typically high net worth individuals who invest in new and early stage businesses. Angels invest in companies that cannot attract mainstream venture capital” (Irwin, 2006). In 2007, research conducted at the University of New Hampshire found that 258,200 angels pumped 26 billion dollars into 57,120 companies in the United States (Wehrum, 2009). This is one of the largest sources of start-up capital for US entrepreneurs.

Asset Finance: Asset financing allows an entrepreneur to borrow from a financial institution based on some percentage of assets owned by the company. These assets are typically inventory and receivables, although real estate and other assets may be used. The asset serves as the security required to obtain borrowed funds. Due to the increased risk that SMEs present, financial institutions are more likely to base loans to SMEs on collateral (OECD, 1997). Asset financing benefits the entrepreneur by providing working capital which allows the company to operate while it awaits payment for its products and services. This is helpful for entrepreneurs who have recognizable assets; however, according to De Soto a great deal of the developing world’s capital is considered “dead” (De Soto, 2000). In his book, The Mystery of Capital, De Soto asserts that “capital, like energy, is also a dormant value. Bringing it to life requires us to go beyond looking at our assets as they are, to actively thinking about them as they could be” (De Soto, 2000, p.45). Therefore, countries that fail to recognize millions of dollars in assets, take away the potential to raise important capital. As an example, one of the richest sources of working capital comes from real estate. In many countries, real estate is not valued as an asset, and therefore, not available as security for borrowing funds. This once again emphasizes the importance of the institution of private property in accessing capital. Additionally, this can hinder SMEs that lack access to sufficient collateral, leading to credit rationing and higher interest rates (OECD, 1997).

Seed Funds: Seed funds provide support to help launch businesses in their early development. These are risky investments because they are made early in the life of a business when it is most at risk. Seed financing is particularly important in high tech ventures which take several years to realize marketable products. Most entrepreneurial ventures are not candidates for seed capital. Yet for some companies, seed funds are an important source of financing. A study reported by the Norwegian Institute for Urban and Regional Research found that only 17 percent of entrepreneurial financing was in the form of seed funds (Langeland, 2007). Outside of the United States and Canada, where seed money is comparatively easy to access, much of the money invested in start-ups is given in the later stages of a business (OECD, 1997).

Venture Capital: Venture capital funds are available for only a small percentage of start-up and high growth companies. Fewer than 1 in 10,000 start-ups attract venture capital. A GEM research study found informal investors contribute 3.5% into the GDP of GEM nations while venture capital contributes only .1% (Minniti, Bygrave & Autio, 2006). A later GEM study found that 71 percent of the amount of
venture capital in the G7 nations was invested in United States companies (Bosma & Harding, 2007).

SMEs in developing countries find it difficult to obtain venture capital funds compared to industrialized countries. A study by Hussain (2006) concluded that China’s lack of venture backed SMEs put the country at a disadvantage when compared to economically developed countries like the UK. To remain competitive in international markets, developing countries could greatly benefit from venture capital.

Re-invested Capital: Internal funds can provide a major source of finance for entrepreneurs. Re-invested capital originates from the firm’s profits that are then re-invested within the business. Studies have found that the percentage of an entrepreneur’s reinvestment in their businesses is higher in the early stages of their business growth with the average rate of reinvestment decreasing once the business and profits become more consistent and stable (Brown, Earle & Lup, 2005).

Guaranteed Loan Programs: Loan-guarantees are established by governmental agencies to help entrepreneurs qualify for loans from financial institutions. When entrepreneurs have a reasonable chance to succeed, but lack the adequate collateral to convince a lender to loan them money, government loan guarantee programs can help. For example, in the United Kingdom, from April 2004 to March 2005, the Small Firms Loan Guarantee Scheme guaranteed 7,130 loans with a cumulative value of GBP 481 million (Irwin, 2006). This form of governmental guarantee allows entrepreneurs access to capital that otherwise would be denied by financial institutions.

IPOs: Most companies never go public. However, for those that have created value, an Initial Public Offering of its stock is an important source of financing for future growth. This adds a great deal of liquidity to the financial structure of the business, allowing entrepreneurs to raise capital by selling equity rather than using debt. It also allows entrepreneurs a chance to take some of their investment out of the company. IPOs are rare. In the United States in 2005, 45 venture backed companies raised $3.4 billion with IPOs. In comparison, approximately 3 million new companies raised $100 billion in other investments, and the founding entrepreneurs themselves contributed another $200 billion (Bosma & Harding, 2007).

Credit Cards: Many early stage entrepreneurs raise financing through the use of credit cards when they fail to qualify for traditional loans. This type of credit is generally not secured, which is why it is often attractive to entrepreneurs. Credit card debt is risky and often carries high interest rates. The rates charged on credit cards can add a financial burden to the company when repaying the debt.

GOVERNMENTAL SUPPORT SYSTEMS

The governmental support systems have a major impact on entrepreneurial activity. Irwin (2006) concluded that government policies are crucial in creating an environment that enables entrepreneurial business to flourish. He also makes a case that it is essential for governments to do everything possible to improve the environment for business; not just in terms of simpler and more transparent regulation, but including tax policies, labor laws, understandable and fair property rights, and the ability to enforce contracts. These governmental roles can have a dramatic effect on entrepreneurial activity. Depending on the governmental support systems in place, a potential entrepreneur may be more or less likely to start a business in the market.

A government's role in supporting entrepreneurial activities can be looked at from two different views. The first role of government is the regulatory environment it creates. The second role is in developing programs to help increase the level of entrepreneurial activities nationally and internationally.
These are described in more detail below.

**Entry Regulation:** The entry regulations that various governments have established vary in severity. For example, in order for an entrepreneur in Mozambique to meet government requirements for starting a business, he must complete 19 procedures taking at least 149 business days and pay US$256 in fees. In contrast, an entrepreneur in Canada wishing to start a business could complete the required process of 2 procedures in 2 days while paying US$280 in fees (Djankov, La Porta, De Selanes & Shleifer, 2002). Even if the entrepreneurial spirit is present in the population, barriers to entry may inhibit business start-ups.

**Regulatory Environment and Policies:** Regulatory policies also have a considerable impact on the level of entrepreneurial activity. For example, in the United States small businesses are often burdened by regulatory factors such as the EPA, OSHA and EEO. The costs of regulations put an asymmetrically disproportionate burden on SME’s due to that the average cost of regulation per employee is higher for an SME than a for large firm (OECD, 1997). The necessity to learn and implement programs that deal with regulation can be difficult and costly; a factor which in turn could decrease a country’s level of entrepreneurial activity. Therefore regulations redirect funds away from re-investment and time away from productive management.

**Taxes:** Taxes, specifically the various business taxes, can be a complicated governmental burden for entrepreneurs. These complications create difficulties in understanding taxes. This in turn creates expenses to cope with tax laws. Many entrepreneurs hire tax specialists to deal with the myriad of tax codes. For example, taxes vary in the US depending upon the legal form of the business. They also vary depending upon the type of expenses that the company incurs. Furthermore, taxes can vary depending upon the physical location of the company. Governmental tax policies can also cut directly into an entrepreneur’s profitability. For example, taxes such inheritance or death taxes, can severely impact the capitalization of a company (Kreft, 2003). Specifically, these taxes directly reduce the ability for entrepreneurs to pass on their entrepreneurial gains to fund future generations of entrepreneurs.

Further issues arise with tax compliance costs and the heavy burdens this can create for entrepreneurs and SMEs. Compliance costs generally include three different factors; the actual taxes themselves, the efficiency costs and tax-induced market distortions, and the administrative costs expended by the business in complying with different tax policies. Many governments have attempted to decrease the burden tax policies place on entrepreneurs through concessions such as lower taxation rates for SMEs, tax exemptions and reductions, exemptions from certain taxation requirements or processes. Despite such concessions, however, entrepreneurs still face a heavy burden that can have incredibly negative impacts on their success. For example, a cross-cultural comparative study addressing compliance costs across the United States, Britain, and New Zealand found that, despite policies and concession addressing tax compliance issues for smaller firms, SMEs were still found to encounter tax burdens at rates approximately one third higher than their larger company counterparts (Chittenden, F., Kauser, S. & Poutziouris, P., 2003). However, one possibility as to why SMEs still face such large burdens, even with government concessions, could be explained by the following; while the government does attempt to create concessions and policies to support the tax burdens of entrepreneurs and SMEs, a large percentage of such businesses are unaware that such concessions are in existence. Those who are aware do not either believe they are eligible for such concessions, even when they are, in fact, eligible, or find such concessions and policies too complex and not worth the effort of applying for (Evans, Hansford, Hasseldine, Lignier, Smulders & Vaillancourt, 2014).

Such problems are witnessed over and over across a variety of nations and cultures. South Africa,
for example, has an incredibly complex taxation system that requires some SMEs to be responsible for eleven different taxes. Each different tax requires its own specific forms, documentations, and processes. Such complexities increase tax compliance costs in terms of administration, but also in terms of time and effort that could be better applied elsewhere in the business. Similar to most countries, concessions are created by the South African government and do exist for these entrepreneurs. Unfortunately, these tax deduction and reduction concessions are largely overlooked by entrepreneurs; the majority of affected SMEs are either unaware of these concessions, or are aware, but do not participate due to both imagined, as well as, real complexities (Abrie, W. & Doussy, E., 2006).

**Tariffs:** The establishment of tariffs is another governmental factor that can impact entrepreneurial activity. From a domestic standpoint, entrepreneurs would support the establishment of tariffs against foreign products because it would protect their domestic market. However, domestic tariffs for entrepreneurs can cause problems if the entrepreneur needs to import supplies from another country. If the government has strict tariffs in place, an entrepreneur may have no choice but to get their supplies domestically and face an increase in costs. In addition to these factors, if entrepreneurs hope to expand their business abroad, they may be at a disadvantage because of foreign tariff policies. Their products would be more expensive when competing globally, thus decreasing their ability to expand.

**Government Support Programs:** In addition to regulatory and legal inputs, governments also play a crucial role in developing programs to help increase the level of entrepreneurial activity. These programs range in both size and mission. For example, the United States has established the Small Business Administration (SBA), a relatively large program to help SMEs, while Canada created the Youth Entrepreneurs Association to aid their younger entrepreneurs. An article in the Journal of Business Venturing found that, the IFF (Innovation Investment Funds, Australia) program has facilitated investments in start-up, early stage, and high-tech firms (Cummings, 2007). The presence of these forms of governmental support can greatly increase entrepreneurial activity.

Multiple studies have confirmed the positive impact that such government programs can have on entrepreneurship and SMEs. One study conducted in Australia demonstrated the positive correlation of utilization of government support services and advisory agencies by SMEs and subsequent SME success and survival (Valencia, V. S., 2016). A second study focused on Small Business Development Centers (SBDCs) also demonstrated this positive relationship, and confirmed that SMEs who received SBDC assistance greatly increased their chances of surviving for at least four years longer than those businesses which did not seek such help (Chrisman, J. J. & McMullan, W. E., 2004). Unfortunately, this success can be hindered by the lack of trust that many businesses often hold for government support and assistance. This is found to be the case most prominently in nations where government corruption and corruption of government officials is common practice (Na Sakolnakorn, 2010). It is also found to be the case in countries where government processes are incredibly, and often needlessly, complex (Sriram & Mersha, 2010). Such success can also be obstructed from misunderstanding or lack of information on the part of the SME, concerning such government support systems. It has been shown that in many places, government agency support and assistance is often negatively perceived by entrepreneurs and SMEs. These perceptions and whether or not an SME would actively seek government support were most commonly founded by three factors; whether or not the business is aware that such government programs exist and a general lack of knowledge on what such program can do to help the company; when SMEs are aware of such programs, they often do not believe that they will provide any actual assistance or the right type of assistance; when SMEs are aware of such programs, they are hesitant to use them because seeking such assistance may cause others to believe that the SME is incompetent or failing (Audet, Berger-Douce...
In order for government programs and policies to have a truly positive impact on entrepreneurs, this barrier consisting of lack-of-awareness and lack-of-trust must first be overcome.

International Trade Agreements: International trade agreements can influence the competitiveness of entrepreneurs. In an increasingly global economy, international economic institutions, such as the World Bank and the World Trade Organization, are strengthening their influence on entrepreneurship and entrepreneurial opportunities. This is usually achieved through international trade agreements and liberalizing trade and investment policies across countries. The money and level of influence these organizations have can directly impact national or regional entrepreneurship.

POLITICAL AND ECONOMIC SYSTEMS

Political and economic systems are an integral part of business. The political system and specific economic situation can vary dramatically from one nation to another. Even though these systems can have numerous differences depending on the country in which the entrepreneur is located, there are some general factors that affect entrepreneurial activity. For example, an entrepreneur starting a business in a democratic system as opposed to a communist system can face dramatically different challenges. For years China’s communist political background had a direct impact on the business and entrepreneurial environment. The communist system was committed to opposition and suppression of capitalism, private property. This form of political suppression can diminish an entrepreneur’s ability to enter the marketplace.

Politics and political parties have a great influence on entrepreneurial trends and resources in a nation. In some developing countries, it is almost impossible to start and grow a business without having decent political power, which is usually obtained by standing under the umbrella of a strong political party. As with government corruption, an entrepreneur's need to establish political support before becoming competitive in the nation can be a major detriment to entrepreneurial activity.

Political stability of a state also plays a role in the start-up and success rates of entrepreneurship. Political risk, generally defined, is the impact that politics has on the market. Consequently, political stability – the unit of measure used to quantify a state’s political risk – is associated with lower risk and lower costs, as well as, increased levels of trust, predictability, and accountability in the government. An unstable political state is more commonly found to contribute to increased risk and costs, in addition to government unpredictability in action and legislation. Research undertaken into this topic has found that political stability – and thus lower risk and higher predictability – is positively in relation to entrepreneurial start-up and success rates, confirming that a politically stable environment greatly contributes to the promotion and growth of the entrepreneurial sector (Dutta, Sobel & Roy, 2013). Additionally, investors are more willing to fund ventures that are in a politically stable state due to the increased security of return on investment. Further research conducted using both American and Turkish students confirm such conclusions and demonstrate the positive correlation between political stability and entrepreneurial intentions (Ozaralli & Rivenburgh, 2016).

Entrepreneurs can also have an impact on politics. In the US, research by Kuratko (2006) found that the political influence of entrepreneurs has been growing over the past 25 years. An entrepreneur’s ability to influence politics and legislation can be a factor that can greatly works to their advantage. Therefore, a nation which has a political system where entrepreneurs can have influence would be more likely to have higher levels of entrepreneurs and small businesses.

The various characteristics of a nation’s economic systems can also have a direct impact on
entrepreneurial activity. Hitt and Hoskisson found several economic factors that affect entrepreneurship: “inflation rates, interest rates, trade deficits or surpluses, budget deficits or surpluses, labor training laws, and educational philosophies and policies” (Kuratko, 2006). Specifically, a country’s inflation rate can have a profound impact on the attractiveness of entrepreneurship. According to GEM studies, data shows that early stage entrepreneurial activities tend to be high in countries with lower per capita GDP; however, it declines sharply in the middle-income countries, rising again in high-income countries. These trends demonstrate how a nation’s economic system can have a dramatic effect on entrepreneurial activity. Due to the fact that entrepreneurial dynamics perform differently in countries with varying levels of economic development, it is imperative that governmental policy addresses the needs of the economy (Wennekers et al., 2005). For example, in lesser-developed countries, public policy should focus on securing property rights and physical infrastructure with the objective of attracting foreign direct investment versus a developed country that perhaps should focus on promoting research and development.

The overall state of the economy can be an additional factor that can impact the level of entrepreneurial activity. The interviews conducted by Cheung and Chow, found that entrepreneurs in Hong Kong felt that a good economic environment made it easier to start a business (Cheung, 2006). Therefore, a country that is perceived as having a better overall economy may also find a higher degree of entrepreneurial activity.

PRIVATE SECTOR SUPPORT SYSTEMS

Networking opportunities and access to information have long been considered important to successful entrepreneurship. Good networking can break down many of the obstacles that an entrepreneur may face. Networking can also give entrepreneurs easier access to key information necessary for their success. An extensive network of alliances can link entrepreneurs to key constituents in their industry, and align entrepreneurs with partners who have valuable skills and knowledge to share. In addition, networks can assist entrepreneurs in terms of financial gains and access as well (Pangarkar & Wu, 2013). Given the benefits that networking can have, the private sector has created support systems for entrepreneurs. In the United States, TIP clubs have emerged where business owners get together to discuss how they can help each other grow their businesses. Organizations like Young Presidents Organization (YPO) and Vistage International (formerly TEC) offer peer group support for business owners. One organization, Vistage International, studied their members and found increases in profits compared to national averages (Vistage, 2006).

A newer concept has also emerged over the last decade and has proven to positively impact the rates of entrepreneurial start-ups and their success. This concept is the business incubator. At its most basic level, a business incubator functions to provide budding entrepreneurs with both the resources and assistance that they could not otherwise access, in order to develop their entrepreneurial ventures. Prominent services provided by incubators and most sought after by entrepreneurs include financial assistance, consultation, marketing assistance, and office space and equipment. They also provide a secure location for ventures in infrastructure-weak areas to operate at decreased costs given the fact that incubators allow multiple ventures to operate at one location, thus sharing the costs of utilities and current technologies. More abstractly, business incubators also improve an entrepreneur’s network and social capital within a community and industry. (Elmansori, 2015). Research into the impact of business incubators on entrepreneurship is a growing field, but already there has been research conducted to
support the idea that firms who operate for a length of time within a business incubator will experience higher performance success in the future (Arlotto, Sahut & Teulon, 2011). One such study confirmed that business incubation improves overall firm performance, and makes a point of distinguishing certain factors that are improved for a venture when they have completed their stay in a business incubator. Such improved factors include, most prominently, firm survival rates and revenue growth followed by other improved factors such as improved job creation through the incubated venture, improved access to venture capital, and improved ability at networking and alliance development (Ayatse, Kwahar & Iyortsunn, 2017).

ENTREPRENEURIAL EDUCATION

Educational systems have played an important role in entrepreneurship. Recent research has found that “entrepreneurship has spawned a new education paradigm for learning and teaching” (Timmons & Spinelli, 2009). Private and public schools at all educational levels have launched entrepreneurship studies and programs.

Over the past decade this is a topic which has become increasingly important and thus increasingly researched within the entrepreneurial field. General conclusions found across multiple studies have found that there is strong evidence linking entrepreneurial intention and entrepreneurial education. For example, one such study found that an entrepreneurship educational program was positively linked to increased entrepreneurial behavior and intentions. The study confirmed that the program increased the belief that beginning a business and having a career as an entrepreneur was an entirely realistic possibility, and decreased the belief that becoming an entrepreneur was too complex of a process and too difficult to achieve (Rauch & Hulsink, 2015). Such findings were mirrored in other studies, further demonstrating the positive relationship between entrepreneurship education programs and entrepreneurial intentions and attitudes. It was also shown that such entrepreneurship education programs were very effective at developing the entrepreneurial intentions of those individuals who had never had any previous experience with entrepreneurship (Fayolle & Gailly, 2015). Such findings were not only consistent in physical settings, but in virtual settings as well; IT-based entrepreneurship education programs also demonstrate a positive influence on entrepreneurial intention in the same way as programs taking place in physical classrooms (Hejazinia, 2015). Similar studies conducted across multiple industrial sectors confirmed the same results. For example, a study focused on entrepreneurship as an aspect of the agricultural sector found that entrepreneurial-oriented classes were important in developing the future of the agriculture industry (Mehlhorn, Bonney, Fraser & Miles, 2015).

TRADE ASSOCIATIONS

Trade associations develop industries by promoting activities such as advertising, education, political donations, and lobbying. The influence that these parties have in their respective industries can be a useful aid for entrepreneurs looking to gain support in their market. Other benefits of trade associations include: they work to support and represent collective industry interests; they both generate and legitimize the identities of budding entrepreneurs entering the industry; they assist industry players when both intra-industry and inter-industry conflict arises (Esparza, Walker, & Rossman, 2013). Trade associations support entrepreneurial ventures in other capacities as well. They provide access to a wider knowledge base than an entrepreneur would have access to on their own, and can support ventures in
receiving government and other types of funding to further their ventures. In addition, further advantages of trade associations comes in the form of competitive and trade advantage, especially in an international setting (Christie, Rowe & Koroglu, 2003). Such support is exemplified by a business association found in Taiwan that assisted technology-based industries by providing a way to transfer hard-to-standardize technological knowledge. It is also demonstrated by the National Association of Software and Service Companies found in India, which worked to design marketing campaigns and support for small entrepreneurial firms who would not have the resources to develop or finance such an initiatives otherwise (Tzeng, Beamish & Chen, 2011).

In some countries, entrepreneurs are required to interact with trade associations or trade groups. Specifically, many developing nations require approval from the trade group in their respective industry before entrepreneurial companies are able to enter the market.

**INTERNAL AND EXTERNAL ENVIRONMENTS; INFRASTRUCTURE**

*Security:* A fundamental condition for business to thrive is security. Crime and civil unrest are enemies of entrepreneurs. In order to facilitate entrepreneurship, institutions within a state must promote just law enforcement and the protection of property rights. This can be attained through an effective legal structure and independent court system (Kumar & Borbora, 2017). It is obvious that countries with lower levels of security experience higher risks, which results in lower levels of entrepreneurship. The level of security hurts both the potential entrepreneur and investors who shy away from regions with a high potential for civil unrest.

*Physical Infrastructure (Transportation, Utilities, and Communications Technology):* Malfunction in key systems such as transportation or utility services can severely harm businesses. This is particularly true for the more vulnerable start-up and early stage business. Reliable transportation, sources of energy, and physical infrastructure are essential for entrepreneurship to thrive. These factors are imperative to ensuring that the logistics performance of a business operates efficiently. Inefficient logistics deters economic growth by increasing the costs of doing business. In turn, when a country lacks the infrastructure to allow for productive logistics, individuals or organizations are dis-incentivized from investing or doing business in that country, which slows the economic growth as previously discussed (Arvis, Saslavsky, Ojala, Shepherd, Busch & Raj, 2014). As supply chains become more complex in an ever increasingly globalized world, it is crucial that the logistics are not interrupted by physical detriments in order to allow for economic growth and entrepreneurial investment. Research in this field has identified the positive relationship between stable infrastructure and entrepreneurial development. It is further shown that the type of infrastructure implemented can influence the success of different industries at different rates. For example, it is shown that infrastructure in the form of accessible broadband is key to the development of high-tech industry firms, such as entrepreneurial firms with a focus on software, whereas infrastructure such as roadway and transportation systems has a greater impact on manufacturing firms (Audretsch, Hegar & Veith, 2015). The effect of infrastructure on entrepreneurial activity is also dependent on the location of the entrepreneurial firm. A study conducted on the rural development of Bosnia and Herzegovina found that infrastructure such as road systems, broadband, and telecommunication play a critical role in the development of rurally-located entrepreneurs given the obstacles that such rural isolation often creates for such ventures (Delalic & Oruc, 2014). In addition, infrastructure that facilitates communication is especially important to developing SMEs given the international markets one must engage with in order to be successful (Aleksejeva & Aleksejeva, 2015).
Climate (Natural Disasters): Many firms suffer the consequences of natural disasters. Hurricanes, tsunamis and many other natural disasters have either ruined businesses or kept entrepreneurs from investing in those areas. In the US, the SBA has created an incentive package to encourage small businesses to open in areas that were most affected by Hurricane Katrina. The Gulf Coast Business Matchmaking Fund provides access to federal, state and local governmental help to qualified businesses. These programs are created to help entrepreneurs invest in distressed areas.

SOCIO-CULTURAL ENVIRONMENT

Several socio-cultural factors have been addressed in recent research. For example, a study focusing on the success factors of young Chinese noted several socio-cultural factors such as “placing a high value on innovation, risk taking, and independence” (Cheung, 2006). These factors, among others, can have a dramatic effect on an entrepreneur’s ambition and ability to successfully start a business. Other various studies have also been undertaken to develop a better understanding of the way that the culture and national values of a country impact entrepreneurship. Some of these studies have focused on Schwartz’s (1994) cultural dimensions, including; autonomy versus embeddedness, egalitarianism versus hierarchy, and harmony versus mastery, to explore the culture-entrepreneurship relationship. Others have focused on Hofstede’s dimensions of power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity to better understand this relationship (Hofstede & Bond, 1984). Across research, a few points concerning such relationships become clear. The way in which cultural values affect entrepreneurial rates are interrelated to the income of a country as well as to the type of entrepreneurial initiative undertaken; opportunity entrepreneurs who enter into a venture out of interest versus necessity entrepreneurs who enter into a venture out of economic need (Liñán, Fernández-Serrano, & Romero, 2013). Other outcomes of research in this area have found certain cultural dimensions to be generally associated with certain levels of entrepreneurial activity. For example, it has been shown that higher levels of both autonomy and egalitarianism tend to predict higher levels of entrepreneurship as income levels for a country increase, while embeddedness tends to be a more likely predictor of entrepreneurship in lower income countries. In addition, culture plays an important role in supporting the legitimacy of entrepreneurship; those cultures which foster a supportive atmosphere in the form of valuing risk-taking and entrepreneurial spirit tend to see higher rates of entrepreneurship than those cultures which foster more anti-risk taking and anti-entrepreneurial sentiments (Liñán, Fernández-Serrano, & Romero, 2013). Such notions are further supported in other research. A study conducted using nations of the European Union found a variety of conclusions jointly related to culture, income, and entrepreneurship. For example, it demonstrated that higher-income EU countries that scored highly in the values of autonomy, egalitarianism and mastery also boasted the highest levels of entrepreneurial activity within the study (Liñán, & Fernandez-Serrano, 2014). While the previous studies explained the relationship between entrepreneurial activity and culture in terms of Schwartz’s dimensions, other studies strive to understand this relationship in terms of Hofstede’s dimensions. For example, the most prominent conclusion based on these dimensions has found that those countries which are highest in individualism, as opposed to collectivism, tend to demonstrate higher levels of entrepreneurial startups and venture success (Rarick & Han, 2015). For our model specifically, we will now focus on one socio-cultural factor that can be applied to entrepreneurs; religion.

Most religious beliefs and practices have an impact on the way of conducting business and trade. This can affect the entrepreneur’s behavior differently according to the rules applied to followers of each
religion. According to Kwon (1997) “the individual elements making up an entrepreneur's belief matrix influence the entrepreneurial process. Where religious salience is high, entrepreneurs will tend to use religious criteria to influence their decision making, even if it harms their short-term commercial interests” (p.151). Cheng (1958) in referring to the work of Max Weber concluded that religion was an important link to the business success. Weber believed that the protestant ethic was a powerful force in fostering the accumulation of wealth. This had a great influence on the entrepreneurs of the time.

Religious groups can also provide a resource for creating entrepreneurial capital (Kwon, 1997).

The concept of Islamic banking was developed to overcome obstacles that entrepreneurs were facing as a result of conflict between Islamic trade rules and the global banking system. An important difference between Islamic commerce and conventional commercial transactions is the Islamic prohibition on paying or receiving interest. But there are also other significant divergences which need to be taken into account. An Islamic belief is that property is God-given. Clearly, the construction of property in the Islamic religion differs from that of property as a secular value. For Muslims, loans cannot be made or accepted in accordance with traditional banking methods. This is because traditional banking requires the payment of interest. To get around this, Islamic banking allows a prospective client to borrow money while still adhering to Islamic Law through a profit and loss sharing with the borrower. This sharing is a form of partnership where lenders risk their investment with borrowers on the basis of their capital share and effort. Unlike interest based financing, there is no guaranteed rate of return (Venardos, 2005). To contrast traditional and Islamic banking further, the rationale of Islamic banking is to foster partnership and support businesses in both good and difficult times. There is no interest allowed so there is no payment burden on the borrower. Traditional banking requires the borrower is to pay a predetermined rate of interest on the sum borrowed even if the borrower incurs losses. To insist on interest payments irrespective of the economic circumstances of the borrower, violates the Islamic rule of justice.

Furthermore, Vernardos (2005) claims that an interest-based system discourages innovation, particularly on the part of small-scale enterprises. Large industrial firms and big landholders can afford to experiment with new techniques of production because they have reserves to fall back upon. It is interesting to speculate how companies using traditional banking methods compare to companies using Islamic banking rules in a recession, where sales and profits are reduced.

Kwon (1997) studied Korean immigrants who show high rates of entrepreneurship and church attendance. The perceived connection is that ethnic churches provide entrepreneurs a pool of potential customers and employees while immigrants (especially new arrivals) benefit from church attendance as a means of finding work.

To summarize religion as a factor affecting entrepreneurship activity is worthy of study. There is much speculation that religion has an influence and relatively little empirical research supporting its importance.

CONCLUSION

The author has put forth a Global Model of Entrepreneurship and described the factors that comprise the model. Much research is needed to test these factors. It is hoped that this research can help nations remove obstacles to entrepreneurship while creating opportunities for new venture creation. It is naïve to think that entrepreneurs can withstand economic, political and socio-cultural factors even if they have a strong entrepreneurial spirit. In a global world, a macro approach to the study of entrepreneurship is long overdue.
REFERENCES


